

Журнал акушерства и женских болезней

JOURNAL OF OBSTETRICS & WOMEN'S DISEASES

1999 год ТОМ XLVIII (VOL. XLVIII)

1 СПЕЦИАЛЬНЫЙ ВЫПУСК (SUPPLEMENT 1)

BOOK OF ABSTRACT

**The VII-th Baltic Sea Congress on Obstetrics and Gynecology
Saint-Petersburg, 12-15 May, 1999**



'99

Журнал акушерства и женских болезней

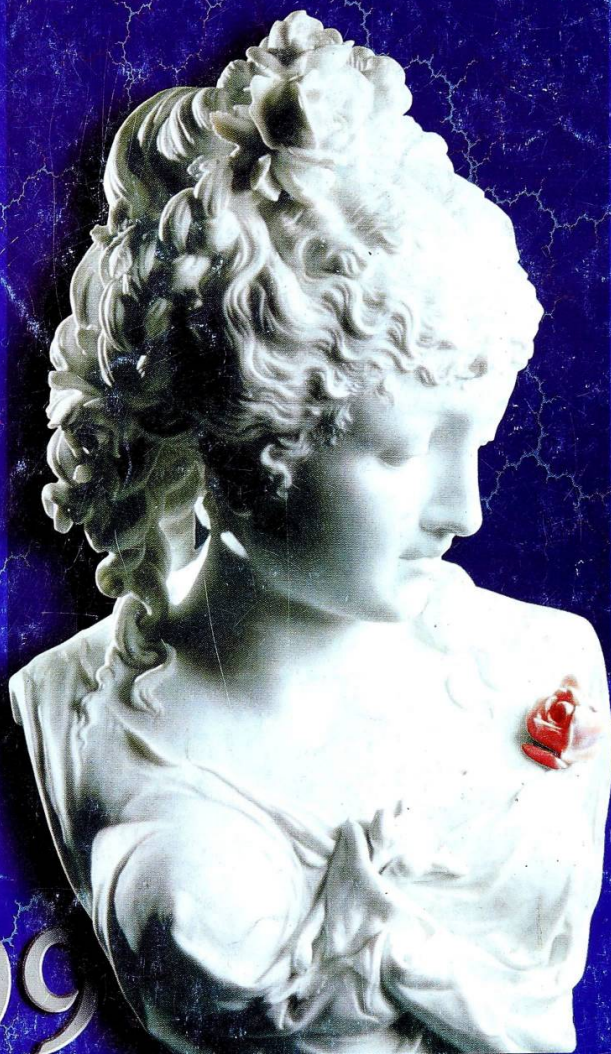
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The VII-th Baltic Sea Congress on Obstetrics and Gynecology
Saint-Petersburg, 12-15 May, 1999



'99



Saint Petersburg



Ott Inst. OB/GYN



7th Baltic Sea Congress on Obstetrics and Gynecology **13th –15th May 1999**

Pre-Congress Course of European Association of Perinatal Medicine **12th May 1999**

Saint-Petersburg, Russia

Under the Patronage of Vladimir A. Yakovlev
Governor of Saint Petersburg

Congress Organizers:

Scientific Committee of Baltic Sea Congresses on Obstetrics and Gynecology
Ott Institute of Obstetrics and Gynecology, Russian Academy of Medical Sciences
St.-Petersburg and Leningrad Region Association of Obstetricians and Gynecologists
St.-Petersburg Health Care Committee

Leningrad Region Health Care Committee

Regional Public Organization of Health Care Assistance "Medelita"



Дорогие коллеги,

От имени Ассоциации акушеров и гинекологов Санкт-Петербурга и Ленинградской области имею честь пригласить Вас принять участие в работе VII Конгресса акушеров и гинекологов стран Балтийского моря и I Российского семинара Европейской Ассоциации Перинатальной медицины.

С 12 по 15 мая 1999 года Северная столица России станет местом проведения значительного медицинского форума. Мы рады, что честь проведения Конгресса предоставлена Научно-Исследовательскому Институту Акушерства и Гинекологии им. Д. О. Отта. Участие в работе Конгресса ведущих специалистов России и других Европейских стран предоставит уникальную возможность широкого обмена между врачами всех стран региона Балтийского моря последними научными и клиническими достижениями в области акушерства и гинекологии.

Мы уверены, что Конгресс пройдет не только на высоком научном уровне, но и запомнится увлекательной культурной программой, для которой наш Город, с его всемирно известными музеями, театрами и парками, предоставляет огромные возможности.

Мы ждем Вас в Санкт-Петербурге

С уважением,

Президент Конгресса

Академик Эдуард Карпович Айламазян

Dear colleagues,

On behalf of St.-Petersburg and North-West Association of Obstetricians and Gynecologists, it is our great pleasure to invite you to participate in the 7-th Baltic Sea Congress on Obstetrics and Gynecology and I-St Russian Course of European Association of Perinatal Medicine which will be held in St.-Petersburg, from 12th to 15th of May 1999.

The participants of the Conference will get the opportunity to discuss the subjects of their scientific and clinical interest with the invited speakers. The most prominent experts will present reviews on recent research advances in the field of Obstetrics and Gynecology. We are looking forward that 7th Congress will maintain long traditions of successful science and pleasant human interaction, all the more that the honor to organize this Conference will be given to Ott Institute of Obstetrics and Gynecology which just has celebrated its 200th anniversary.

Moreover, there is one more reason to spend some days in St.-Petersburg - to acquaint with historical beauty and rich culture life of the Northern capital of Russia. We will try to help you to get a memorable culture and social experience.

We will be happy to meet you in St.-Petersburg

With respect,

Congress President

Prof. Edward K. Ailamazyan





Дорогие участники Конгресса!

Рад приветствовать в нашем городе столь представительный форум медиков Балтийского региона.

Проблемы, которые будут обсуждаться на VII Конгрессе акушеров и гинекологов, чрезвычайно важны для всех времен и народов, потому что речь на нем пойдет о здоровье и благополучии матери и ребенка, а значит - о будущем любой нации.

Конгресс пройдет в нелегкое для России время. Тем важнее, что и в нелегких экономических условиях лучшие российские врачи будут иметь возможность обмениваться последними научными и практическими достижениями со своими коллегами из стран Балтии, наладить контакты и дальнейшее сотрудничество.

Приятно отметить, что честь проведения Конгресса в северной столице России предоставлена Научно - Исследовательскому Институту им. Д. О. Отта, который недавно отметил 200 лет со дня своего основания.

Уверен, что форум пройдет на высоком научном уровне, а его участники увезут из Санкт-Петербурга самые добрые воспоминания о нашем прекрасном городе и его жителях.

***Губернатор Санкт-Петербурга
В.А.Яковлев***

Dear participants of the Congress!

I'm very glad to welcome such representative medical Forum in St.-Petersburg. The problems which will be discussed in VII Baltic Sea Congress on Obstetrics and Gynecology are extremely important for all times and nations because these problems touch upon a question of mother's and children's health and well-being and, hence, a future of any nation.

The Congress takes place during difficult period for our country. It's still more important that leading doctors from Russia and Baltic Sea countries will exchange of last scientific and practical achievements in such life confirmed field of medicine, arrange future contacts and further collaboration.

It's a pleasure to note that a great honor to meet Congress in Northern Capital has been given to Ott Institute of Obstetrics and Gynecology, which celebrated its 200 anniversary last year.

I hope that Forum will be held on high scientific level and its participants will take away very kind memoirs about our splendid city and its citizens.

***Vladimir A. Yakovlev
Governor of St.-Petersburg***

RUSSIAN SCIENTIFIC AND ORGANIZING COMMITTEE OF VII BALTIC SEA CONGRESS ON OBSTETRICS AND GYNECOLOGY

CONGRESS PRESIDENT

Edward K. Ailamazyan (St.-Petersburg)

CONGRESS COORDINATOR

Anton V. Mikhailov (St.-Petersburg)

COMMITTEE MEMBERS

Baranov V.S. (St.-Petersburg)
Grinenko A.Y. (Leningrad Region)
Gurkin Y.A. (St.-Petersburg)
Kira E.F. (St.-Petersburg)
Konstantinova N.N. (St.-Petersburg)
Korsak V.S. (St.-Petersburg)
Krasnopsky V.I. (Moscow)
Kulakov V.I. (Moscow)

Maksimov S.Y. (St.-Petersburg)
Pavlov Y.A. (St.-Petersburg)
Poteen V.V. (St.-Petersburg)
Repina M.A. (St.-Petersburg)
Savelyeva G.M. (Moscow)
Selkov S.A. (St.-Petersburg)
Serov V.N. (Moscow)

SECRETARIAT

Koroteev A.L. (St.-Petersburg)
Dashkovskaya A.S. (St.-Petersburg)

INTERNATIONAL SCIENTIFIC COMMITTEE OF BALTIC SEA CONGRESSES ON OBSTETRICS AND GYNECOLOGY

M. Ahigren / Sweden
E. Ailamazyan / Russia
B. Asted / Sweden
T. Bekstrom / Sweden
M. Bygdemann / Sweden
V. Dirzaukas / Lithuania
R. Erkkola / Finland
J. Falek-Larsen / Denmark
A. Forman / Denmark
L. Hamberger / Sweden
A. Kauppila / Finland
St. Kullander / Sweden
G. Lazdane / Latvia
K. Levisauskas / Lithuania

B. Lindblom / Sweden
P. Lundorf / Denmark
K. Marsal / Sweden
J. Mielnik / Poland
A. Mikhailov / Russia
B. Ottesen / Denmark
C. Rose / Denmark
V. Sadauskas / Lithuania
M. Seppala / Finland
H. Sinimae / Estonia
N.-O. Sjoberg / Sweden
B. Stray-Pedersen / Norway
U. Ulmsten / Sweden
A. Venskauskas / Lithuania

VII BALTIC SEA CONGRESS ON OBSTETRICS AND GYNECOLOGY will take place at "Saint-Petersburg" hotel, St.-Petersburg, Russia, May, 13-15, 1999.

PRE-CONGRESS COURSE OF EUROPEAN ASSOCIATION OF PERINATAL MEDICINE will be held at "Saint-Petersburg" hotel, St.-Petersburg, Russia, May, 12, 1999.

PLACE OF CONGRESS

Congress will take place at "Saint-Petersburg" hotel: Pirogovskaya embankment, 5/2, St.-Petersburg, Russia. The hotel "Saint-Petersburg" is conveniently close to the central area of the city with many historical landmarks — the St. Peter and Paul Fortress, the Summer Gardens, etc. The hotel is full equipped with all conveniences for the international conferences. The hotel has hosted International Banking Congress, International Heart Surgery Congress, International Master Foods Conference, Council of European Conference and other major international conventions. Congress of Russian Association of Ultrasound on Perinatology and Gynecology.

CORRESPONDENCE

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7 КОНГРЕСС АКУШЕРОВ И ГИНЕКОЛОГОВ СТРАН БАЛТИЙСКОГО МОРЯ состоится в гостинице "Санкт-Петербург", Санкт-Петербург, Россия, с 13 по 15 мая 1999 года.

I РОССИЙСКИЙ СЕМИНАР ЕВРОПЕЙСКОЙ АССОЦИАЦИИ ПЕРИНАТАЛЬНОЙ МЕДИЦИНЫ состоится в гостинице "Санкт-Петербург", Санкт-Петербург, Россия, 12 мая 1999 года.

МЕСТО ПРОВЕДЕНИЯ

Конгресс состоится в гостинице "Санкт-Петербург": Пироговская наб., 5/2, Санкт-Петербург, Россия. Гостиница расположена на набережной Невы в центре Санкт-Петербурга. В гостинице есть все условия для проведения конгрессов: большой Конгресс-холл (798 мест), несколько небольших залов. В гостинице проходили такие большие международные конференции, как Международный Банковский Конгресс, Международный Конгресс Лазерной Оптики, Международный Конгресс Кардиологов, Конференция Совета Европы, V Съезд Российской Ассоциации Ультразвуковой Диагностики в Перинатологии и Гинекологии.

АДРЕС НАУЧНОГО КОМИТЕТА КОНГРЕССА

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MAY 12, 1999 – “SAINT-PETERSBURG” HOTEL – COURSE OF EUROPEAN ASSOCIATION OF PERINATAL MEDICINE

Course's Directors: E.K.Aylamazyan (Russia), G.C.DiRenzo (Italy), A.Kurjak (Croatia), A.V.Mikhailov (Russia), O.D.Saugstad (Norway)

MAY 12, 1999 - 19.00 – “SAINT-PETERSBURG” HOTEL – CONGRESS OPENING CEREMONY

SERGEY STADLER VIOLIN CONCERT

MAY 12, 1999 - 20.30 - 22.00 – WELCOME RECEPTION

MAY 13 - 15, 1999 – “SAINT-PETERSBURG” HOTEL – VII BALTIC SEA CONGRESS ON OBSTETRICS AND GYNECOLOGY

MAY 13, 1999 - 20.00 – 23.30 – “SAINT-PETERSBURG” HOTEL – CONGRESS BANQUET

MAY 15, 1999 - 14.45 – CONGRESS CLOSING CEREMONY

12 МАЯ 1999 года – ГОСТИНИЦА “САНКТ-ПЕТЕРБУРГ” СЕМИНАР ЕВРОПЕЙСКОЙ АССОЦИАЦИИ ПЕРИНАТАЛЬНОЙ МЕДИЦИНЫ

Директора Семинара: Э.К.Айламазян (Россия), G.C.DiRenzo (Италия), A.Kurjak (Хорватия), А.В.Михайлов (Россия), O.D.Saugstad (Норвегия)

12 МАЯ 1999 года - 19.00 – ГОСТИНИЦА “САНКТ-ПЕТЕРБУРГ” ОФИЦИАЛЬНОЕ ОТКРЫТИЕ КОНГРЕССА

КОНЦЕРТ СЕРГЕЯ СТАДЛЕРА

12 МАЯ 1999 года - 20.30-22.00 – ФУРШЕТ “ДОБРО ПОЖАЛОВАТЬ”

13 - 15 МАЯ 1999 года – ГОСТИНИЦА “САНКТ-ПЕТЕРБУРГ” 7 КОНГРЕСС АКУШЕРОВ И ГИНЕКОЛОГОВ СТРАН БАЛТИЙСКОГО МОРЯ

13 МАЯ 1999 года - 20.00-23.30 – ГОСТИНИЦА “САНКТ-ПЕТЕРБУРГ” БАНКЕТ КОНГРЕССА

15 МАЯ 1999 года - 14.45 – ЦЕРЕМОНИЯ ЗАКРЫТИЯ КОНГРЕССА

12 OF MAY 1999
PRE-CONGRESS COURSE OF EUROPEAN ASSOCIATION
OF PERINATAL MEDICINE

9.00	Opening of the EAPM Course	
9.20	Jason Gardosi (UK)	<i>Screening and assessment of fetal growth.</i>
10.00	Gian Carlo Di Renzo (Italy)	<i>Fetal puls oximetry.</i>
10.40	Ola Saugstad (Norway)	<i>Resuscitation of newborn infants with room air or oxygen?</i>
11.20-11.40	Coffee/Tea break	
11.40	Azim Kurjak (Croatia)	<i>Color Doppler in the assessment of intervillous circulation in all trimesters of pregnancy.</i>
12.20	Anton Mikhailov (Russia)	<i>Fetal-placental arterial and venous blood flow evaluation in high risk pregnancy.</i>
12.50	Arunas Liubsys (Lithuania)	<i>Prematurity of the lungs: neonatal perspective.</i>
13.30-14.30	Lunch	
14.30	Ragnar Tunell (Sweden)	<i>Expeience of a program for neonatal resuscitation in swiden.</i>
15.10	Inna Ewsukova (Russia)	<i>Perinatal infections.</i>
15.50	Danuta Gross Witkow (Sweden)	<i>Mode of delivery according to fetal and maternal status.</i>
16.20	Nikolai Volodin (Russia)	<i>Ecology and Perinatal Pathology.</i>
16.50	Closing of the Course	
19.00-20.30	Opening Ceremony of the 7th Baltic Sea Congress on Obstetrics and Gynecology	
20.30-22.00	Welcome Reception	

CONGRESS SCIENTIFIC PROGRAM

THURSDAY, MAY 13, 1999

Chair: E.Ailamazyan, A. Kurjak

9.00	Edward Ailamazyan (Russia)	<i>Problems of antenatal diagnostics of intrauterine infection.</i>
9.30	Asim Kurjak (Croatia)	<i>Combined color Doppler and 3D ultrasound study of fetal abnormalities.</i>
10.00	Galina Saveleva (Russia)	<i>Perinatal fetal care: still actual problem.</i>
10.30	Vera Prilepskaya (Russia)	<i>Postcoital Contraception.</i>

11.20-11.40 Coffee/Tea break/Posters/Exhibition

Chair: S. Kuwabara, A.Mikhailov

11.30	Soryu Kuwabara (Japan)	<i>Fetal diagnosis by ultrasound and biochemical makers.</i>
11.50	Victor Radzinskiy (Россия)	<i>Extraembryonic structures and perinatal complications.</i>
12.10	Josef Wisser (Sweitzeland)	<i>The role of 3D ultrasound in Obstetrics.</i>
12.30	Constantin von Kaisenberg (Germany)	<i>Pathophysiology of increased nuchal translucency.</i>
12.50	Anton Mikhailov (Russia)	<i>Ultrasound evaluation of multifetal pregnancy.</i>

13.10-14.30 Lunch

Chair: S. Sarcisov, J. Zielicki

14.30	Sergey Sarcisov (Russia)	<i>Endo-miometrial vaporization in the treatment of abnormal uterine bleeding.</i>
14.50	Enrique Lehmann-Willenbrock (Germany)	<i>Laparoscopic treatment of uterine myomas - long-term results and pregnancy outcome.</i>
15.10	Andrey Andreev (Russia)	<i>Laparoscopic hysterectomy for obese patients.</i>
15.30	Alexandr Popov (Russia)	<i>Laparoscopic surgery in obstetrics.</i>
15.50	Ferenc Szirko (Estonia)	<i>Management of ectopic pregnancy. How to switch to minimal invasion.</i>

16.10-16.30 Coffee/Tea break/Posters/Exhibition

Chair: S. Maximov, Checalova

16.30	Sergey Maximov (Russia)	<i>Screening of minimal gynecological cancer in high risk women.</i>
17.00	Jan Zielicki (Poland)	<i>Laparoscopy in patients with ovarian tumours in Oncology Centre of Warsaw, Poland: results of treatment.</i>
17.30	Checalova (Russia)	<i>Ultrasound diagnosis of trophoblastic disease.</i>
18.00	Adel Ourmantcheeva (Russia)	<i>Uterine sarcomas. Diagnostics and treatment.</i>

CONGRESS SCIENTIFIC PROGRAM

FRIDAY, MAY 14, 1999

Chair: R.Erkkola, V.Sadauskas

9.00	Risto Erkkola (Finland)	<i>Modern management of premature labor.</i>
9.30	Ruta Nadisauskiene (Lithuania)	<i>Infection and preterm labour.</i>
9.50	Reynir Geirsson (Iceland)	<i>Datang pregnansis and qispeishilan lengh.</i>
10.10	Arunas Liubsys (Lithuania)	<i>Very low-birth weight babies – phylosophy of care.</i>
10.30	Vacys Sadauskas (Lithuania)	<i>Lithuanian women's reproductive health care.</i>

10.45-11.15 **Coffee/Tea break/Posters/Exhibition**

Chiar: R.Tunell, R.Geirsson

11.15	Reynir Geirsson (Iceland)	<i>Hypertension in pregnancy: a danger for now and later.</i>
11.45	Ragnar Tunell (Sweden)	<i>Presentation of a Rusian version «Guite to Affectiv Care in Pregnancy and chaildhod».</i>
12.15	Vladas Gintautas (Lithuania)	<i>Impact of fetal surveillance of posterm pregnancy management.</i>
12.35	Margareta Nyman (Sweden)	<i>Delivery at Danderyd hospital – the current concept.</i>

13.00-14.00 **Lunch**

Chiar: N.-O.Sjoberg, V. Krasnopolsky

14.30	Nils-Otto Sjoberg (Sweden)	<i>Cesarean section or vaginal delivery.</i>
14.30	Vladislav Krasnopolsky (Russia)	<i>Alternative delivery – results and prospects.</i>
14.45	Risto Erkkola (Finland)	<i>How many cesareans are justified?</i>
15.20	Ricardo Savransky (Argentina)	<i>Study of maternal and fetal tolerance to PgE2 for labor induction.</i>

15.30-16.00 **Coffee/Tea break/Posters/Exhibition**

Chiar: M.Repina

16.00	Margarita Repina (Russia)	<i>New approaches to the prevention of vascular damages at peripostmenopausal women.</i>
16.30	Djenaro Kristesashvili (Georgia)	<i>Results of randomized controlled trial of levenorgestrel versus the yuzpe regimen of combined oral contraceptives for emergency contraception.</i>
16.50	Elena Soboleva (Russia)	<i>Antigonadotropic effect of high doses cyproterone acetate.</i>
17.10	Marina Tarasova (Russia)	<i>Effects of combined oral contraceptives on hemostasis in women of late reproductive age.</i>
17.30	Alexandr Arutjunyan (Russia)	<i>Disturbances in hypothalamic regulation of reproductive function under the influence of xenobiotics.</i>

CONGRESS SCIENTIFIC PROGRAM

SATURDAY, MAY 15, 1999

Chair: P.-A. Mardh, B. Stray-Pedersen

9.00	Per-Anders Mardh (Sweden)	<i>Infections in gynecology - Outline of present epidemiological knowledge and obstacles for progress.</i>
9.30	Gunta Lazdane (Latvia)	<i>Pelvic inflammatory disease.</i>
10.00	Babille Stray-Pedersen (Norway)	<i>Infections in pregnancy.</i>
10.30	Alevtina Savitcheva (Russia)	<i>Etiological diagnostics of genital infections.</i>
10.45	Klaus Friese (Germany)	<i>Life-threatening viral genital infections.</i>
11.15	Eugene Kira (Russia)	<i>Biological and biochemical properties of vaginal fluid. New in pathogenesis of bacterial vaginosis.</i>
11.35	Per-Anders Mardh (Sweden)	<i>Concluding remarks: A plea for an European surveillance programme and therapy guidelines for genital and allied infectious conditions.</i>
11.45-12.15 Coffee/Tea break/Posters/Exhibition		
Chair: V. Baranov, Y. Verlinsky		
12.15	Vladislav Korsak (Russia)	<i>Effects of endometrial thickness and uterine blood flow on IVF outcome.</i>
12.45	Yury Verlinsky (USA)	<i>The place of preimplantation diagnosis in assisted reproduction practices.</i>
13.15	Vladislav Baranov (Russia)	<i>Prenatal Diagnosis and fetal gene therapy. Today and tomorrow.</i>
13.45	Harou Takabayashi (Japan)	<i>Fetal Cells in Maternal Circulation.</i>
14.15	Annegret Geipel (Germany)	<i>Strong preference for "genetic sonography" as non-invasive option of prenatal diagnosis in patients with pregnancies following intracytoplasmic sperm injection</i>
14.45	Congress Closing Ceremony	

REGISTRATION INFORMATION ИНФОРМАЦИЯ О РЕГИСТРАЦИИ

Registration fee for Congress participants includes:

- Participation in Congress Opening Ceremony and Sergey Stadler Violin Concert
- Participation in Welcome Receptions
- Participation in Congress scientific program
- Participation in exhibition
- Congress bag
- Congress abstract book
- Tea-breaks

Registration fee for accompanying persons includes:

- Participation in Congress Opening Ceremony and Sergey Stadler Violin Concert
- Participation in Welcome Receptions
- Participation in exhibition
- City sight-seeing tour

Special Congress participant's package includes:

- Registration fee for Congress participant
- Lunches at "Saint-Petersburg" hotel (May 12, 13, 14, 15, 99)
- Head phones for simultaneous translation
- Transfers airport-hotel-airport by private car
- City sight-seeing tour (May 11, 1999)
- Evening at the Mariinskiy theatre (May 14, 1999)
- Neva River Boat cruise (May 14, 1999)
- Participation in Congress Banquet (May 13, 1999)
- Excursion "The churches of St.Petersburg" with the concert of The Male Choir of St.Petersburg

Special Accompanying person's package includes:

- Morning City sight-seeing tour (May 12, 99/)
- Evening Excursion to the Hermitage Museum (May 12, 99)
- Exclusive lunch at the Duke Kotchubei Mansion (May 12, 99)
- Morning tour to Petrodvoretz, including a visit to the Grand Peterhoff Palace and lunch in the restaurant "Gallery" which is located right in the palace (May 13, 99)
- Evening excursion to the State Russian Museum (May 13, 99)
- Participation in Congress Banquet (May 13, 99)
- Full day tour to Tsarskoye Selo and Pavlovsk, including a visits to the Ekaterinisky and Pavlovsky Palaces and lunch at "Podvorije" restaurant which is located on the half way from Tsarskoye Selo to Pavlovsk (May 14, 99)
- Evening at the Mariinskiy theatre (May 14, 99)
- Neva River boat cruise (May 14, 99)
- Excursion "The churches of St.Petersburg" with the concert of The Male Choir of St.Petersburg (May 15, 99).

Регистрационный взнос для участников включает:

- участие в церемонии открытия Конгресса
- участие в выставке
- концерт Сергея Стадлера
- портфель Конгресса
- участие в фуршете "Добро пожаловать"
- сборник материалов Конгресса
- участие в научной программе Конгресса
- чайные фуршеты во время перерывов

Регистрационный взнос для сопровождающих лиц включает:

- участие в церемонии открытия Конгресса
- участие в выставке
- концерт Сергея Стадлера
- обзорную экскурсию по городу
- участие в фуршете "Добро пожаловать"

Для удобства участников предусмотрен "Пакет участника Конгресса", который дополнительно к Регистрационному взносу включает:

- проживание в одноместном номере гостиницы "Санкт-Петербург" с 11.05.99 (12.00) по 16.05.99 (12.00), включая завтраки
 - обеды 11, 12, 13, 14, 15 мая 1999 года
 - наушники для синхронного перевода во время заседаний
 - банкет Конгресса 13 мая 1999 года
 - посещение Мариинского театра 14 мая 1999 года
 - теплоходный круиз "Рождение Белых ночей" 14 мая 1999 года
 - экскурсия "Храмы Санкт-Петербурга" с концертом Мужского Хора Санкт-Петербурга в Казанском соборе 15 мая 1999 года.
- В "Пакете" полностью учтено расписание работы Конгресса.

ОФИЦИАЛЬНЫЙ ЯЗЫК

Официальными языками Конгресса и Семинара являются Английский и Русский, синхронный перевод будет организован на всех заседаниях.

ВЫСТАВКА МЕДИЦИНСКИХ ФИРМ

Во время проведения Конгресса будет проводиться выставка медицинского оборудования и фармацевтической продукции. Заинтересованные фирмы могут обращаться в Оргкомитет Конгресса.

OFFICIAL LANGUAGE

English and Russian will be the official languages of Congress and Course. Simultaneous translation will be provided in all meetings.

MEDICAL EXHIBITION

The exhibition of medical equipment and pharmaceuticals will be organized during the Congress. Interested Companies can connect with Congress Organizing Committee.

OFFICIAL BADGES

All official participants of Congress and Course will receive personal badges, which will be pass to visit Congress meetings. We are sorry about possible inconveniences concerning Congress and Hotel Security in absence of official badges.

INSURANCE

Organizing Committee doesn't take any responsibility for injury or damage involving persons or their property as during the Congress and pre- and post- social program. Participants are advised to take their own personal insurance.

BANK AND CURRENCY EXCHANGE

National currency unit of Russia is ruble (25 RUB=1 US\$, for 01.04.99). Most of credit cards are accepted for payment in many hotels, restaurants and shopping centers. The currency exchange is possible in banks and special exchange points.

There is no official tips range for restaurants, taxi and other services.

ARRIVAL AND LOCAL TRANSPORT

St.-Petersburg is connected with most of cities of Russia, CIS countries, East and West Europe by means of airlines. International and local airports are situated within city suburbs (30 min from city center by taxi). All train stations of St.-Petersburg are disposed near center of city. It is not difficult to get to city center and all hotels by taxi or public transport.

Participants of the Congress, those who wish to order personal transport from airport or train station preliminary, should submit complete appropriate registration form indicating sharp time of arrival and/or departure.

CLIMATE

St.-Petersburg is situated in zone of temperate climate. The Congress will take place in the middle of May during White Nights beginning, when the temperature is near 10-15°C. Usually, May is quite sunny, however, in St.-Petersburg everyone should be ready for rain.

VOLTAGE

Electricity in Russia is 220 volt 50Hz. Adapters for plugs may be necessary.

ОФИЦИАЛЬНЫЕ БАДЖИ

Все официальные участники Конгресса и Семинара получают именные баджи, которые будут являться пропуском во время работы Конгресса. Заранее просим извинений за неудобства связанные с работой охраны Конгресса и Отеля при отсутствии официального баджа участника.

СТРАХОВКА

Организационный комитет Конгресса не несет никакой ответственности в отношении страхования здоровья, потерь и повреждения багажа или другой собственности участников Конгресса, как во время его проведения, так и в течение пре- и пост- экскурсионного обслуживания. Участникам рекомендуется оформить их персональное страхование на случай заболевания или несчастного случая.

ДЕНЬГИ И СРЕДСТВА ПЛАТЕЖА

Национальная платежная единица России – рубль (25 RUB = USD 1, на 01.04.99). Большинство Кредитных Карт принимаются к оплате во многих отелях, ресторанах и крупных магазинах. Обмен валюты возможен в банках и обменных пунктах. При оплате услуг официальных “чайных” не существует.

ПРИБЫТИЕ В САНКТ-ПЕТЕРБУРГ И ОБЩЕСТВЕННЫЙ ТРАНСПОРТ

Санкт-Петербург имеет хорошее воздушное сообщение с большинством крупных городов России, стран СНГ и стран Восточной и Западной Европы. Международный и внутренний аэропорты находятся в черте города (30 минут езды от центра города на такси). Все основные железнодорожные вокзалы Санкт-Петербурга находятся вблизи центра города. До центра города и всех гостиниц можно легко добраться на такси или общественном транспорте.

Участники, желающие заранее заказать индивидуальный транспорт из/до аэропорта или вокзала, должны заполнить соответствующую регистрационную форму, указав точное время прибытия и/или отъезда.

КЛИМАТ

Петербург находится в зоне умеренного влажного климата. Конгресс будет проходить в середине мая, в начале периода Белых Ночей, когда средняя температура составляет 10 - 15° С. Май обычно является достаточно солнечным месяцем. Однако, нужно быть готовым к дождливой погоде.

SOCIAL PROGRAM КУЛЬТУРНАЯ ПРОГРАММА

**MAY 12, 1999 – 19.00 – SERGEY STADLER
VIOLIN CONCERT**

**MAY 14, 1999 – 19.00 – EVENING AT THE
MARIINSKIY THEATRE (FORMERLY KIROV
BALLET)**

**MAY 14, 1999 – 22.00 – NEVA RIVER BOAT
CRUISE “WHITE NIGHTS EVE”**

**MAY 15, 1999 – 16.00 – EXCURSION “THE
CHURCHES OF ST.PETERSBURG” WITH THE
CONCERT OF THE MALE CHOIR OF
ST.PETERSBURG**

SERGEY STADLER

One of the most famous musicians in Russia. Born May 20, 1962, St.Petersburg, Russia.

In 1980 graduated from the Special musical secondary school of St.Petersburg Conservatory, in 1987 – from Postgraduate courses at Moscow Conservatory. Professors: B. Sergeev, M. Vaiman, B. Gutnikov, L. Kogan, V. Tretiakov, took lessons from D. Oistrakh.

Awards:

1976 – International Competition, Prague – 1 Prize

1979 – M. Long and Thibaud International Competition, Paris – Grand Prix and Special Prize for French music

1980 – J. Sibelius International Competition, Helsinki – 2 Prize and Special Public Prize

1982 – Tchaikovsky International Competition, Moscow – 1 Prize and Gold Medal

1995 – performed on legendary Paganini's violin (specially brought from Genoa) at the Hermitage museum at the musical festival.

Honored Artist of Russia (1984)

WORLD PRESS ABOUT SERGEY STADLER

It has been nothing better than the performing of Mendelssohn concert by the Russian violinist SERGUEI STADLER, who electrified the audience during his debut in the Great Britain. It was the stupefied performance: the highest level in all aspects, irresistible in scale, intensity, and burst of energy.

“Times” London

His soul is full of passion, his style is romantic, and his manner of playing is clear and confident, involving the audience into the world of emotions. STADLER – is the outstanding example of the Russian violin school.

“Corriere della Serra” Milano

**12 МАЯ 1999 ГОДА – 19.00 – СЕРГЕЙ СТАД-
ЛЕР – СКРИПИЧНЫЙ КОНЦЕРТ**

**14 МАЯ 1999 ГОДА – 19.00 – МАРИИНСКИЙ
ТЕАТР, БАЛЕТ**

**14 МАЯ 1999 ГОДА – 22.00 – ТЕПЛОХОДНЫЙ
КРУИЗ ПО НЕВЕ “РОЖДЕНИЕ БЕЛЫХ НО-
ЧЕЙ”**

**15 МАЯ 1999 ГОДА – 16.00 – ЭКСКУРСИЯ
“ХРАМЫ САНКТ-ПЕТЕРБУРГА” С КОНЦЕР-
ТОМ МУЖСКОГО ХОРА САНКТ-ПЕТЕРБУР-
ГА В КАЗАНСКОМ СОБОРЕ**

СЕРГЕЙ СТАДЛЕР

Один из наиболее значительных музыкантов Рос-
сии.

Окончил Специальную музыкальную школу при
Санкт-Петербургской консерватории.

Учился в классе Б.А.Сергеева, затем М.И.Вайма-
на, Б.Л.Гутникова, Л.Б.Когана, В.В.Третьякова,
занимался с Д.Ф.Ойстрахом.

Победитель международных конкурсов:

1976 – Прага, 1 премия.

1979 – Париж, конкурс имени Лонг-Тибо, Гран-
при и Специальный приз за лучшее исполнение
французской музыки

1980 – Хельсинки, конкурс имени Сибелиуса, 2
премия и Специальный приз публики

1982 – Москва, конкурс имени Чайковского, 1
премия и Золотая медаль.

В 1995 году сыграл два концерта на легендарной
скрипке Паганини, специально привезенной из
Генуи для концертов Эрмитажном театре Санкт-
Петербурга.

*“Не было ничего лучше исполнения концерта Мен-
дельсона молодым русским скрипачом Сергеем Стад-
лером, буквально наэлектризовавшем слушателей в
своем дебюте в Великобритании. Это было ошелом-
ляющее выступление: на высочайшем уровне во всех
асpekтах, неотразимое по масштабу, темперамен-
ту, вспышкам энергии”.*

“Таймс”, Лондон

*“Его душа страстная, стиль романтический, ма-
нера игры ясная, точная, уверенная, увлекающая
слушателей в глубокий мир переживаний, делающая
своими соучастниками. Стадлер – замечательный
образец русской скрипичной школы”.*

“Корriere делла сера”, Милан

MARIINSKY THEATRE

The Mariinsky Theatre is not only one of the greatest achievement of Russian culture, but a true part of the world art treasury.

Being one of the oldest Opera and Ballet Company at Russia it counts its sources from the year 1783 when on the place of contemporary St. Petersburg Conservatoire Stone (Bolshoi) Theatre was open.

The building, which is known nowadays all around the world as Mariinsky Theatre has been constructed by architect A. Cavo's plan and opened its doors to the audience at the year 1860.

On this stage premiers of the best Russian and western operas had occurred. Among them: «La Forza del Destino» (Verdi), «Boris Godunov» (Musorgsky), «Prince Igor» (Borodin), «Eugene Onegin», «The Queen of Spades» (Tchaikovsky), «Salome» (Strauss) etc. Here for the first time to the world were shown such Tchaikovsky masterpieces as «The Sleeping Beauty», «Swan Lake», «The Nutcracker». Marius Petipa and Fiodor Shaliapin, Konstantin Korovin and Vsevolod Meyerhold, Anna Pavlova and Galina Ulanova, Mikhail Fokin and Alexander Golovin - all this is a history of Mariinsky Theatre. For the last 10 years at the head of the company is an outstanding conductor, man with endless energy - Valery Gergiev. One can easily say that nowadays in Russia and abroad Mariinsky Theatre opera and ballet are presented by real stars: Olga Borodina and Ulyana Lopatkina, Galina Gorchakova and Svetlana Zakharova, Nikolai Putilin and Farukh Ruzimatov, Altynai Asylmuratova, Larisa Diad'kova, Vladimир Ognovenko, Yulia Makhalina, Vladimир Galuzin, Diana Vishneva, Anna Netrebko and Igor Zeiinsky and many others. Mariinsky Company tours all around the world. One of the main goals of maestro Gergiev is to show the Russian art to the world and to bring the best examples of western music, opera and ballet to Russia.

The repertoire of Mariinsky Theatre is very wide. Among the last premiers one can name «Der fliegende Holländer» (Vagner), «Le Nozze di Figaro» (Mozart), «Aida» (Verdi), «Night of one-act ballets» staged by the young Moscow choreographer A. Ratmanský. At the upcoming theatre plans is a reconstruction of «The Sleeping Beauty» production according to M. Petipa staging of 1890, Vagner and Verdi operas.

EXCURSIONS

City sight-seeing tour.

May 12 and 14, 99 10.00, May 13 and 15, 99 13.00

The tour starts from "Saint-Petersburg" hotel

Duration: 4 hours.

The comfortable bus will take you right from the hotel "Saint-Petersburg". The guide will tell you the history of St. Petersburg, show you the most beautiful sights of the city. During the excursion you will visit Peter and Paul Fortress - the started point of St. Petersburg and

ГОСУДАРСТВЕННЫЙ АКАДЕМИЧЕСКИЙ МАРИИНСКИЙ ТЕАТР

Мариинский театр это не только подлинно великое достижение русской культуры, но театр по праву ставший частью мировой сокровищницы искусств. Будучи одним из старейших в России театров оперы и балета, он ведет свое начало с 1783 года, когда на месте нынешней Петербургской Консерватории был открыт Каменный (Большой) театр. Здание, которое известно теперь всему миру как «Мариинский театр», было построено по проекту архитектора А.К. Кавоса и открыло свои двери зрителю в 1860 году.

На этой сцене впервые были поставлены лучшие русские и европейские оперы - среди них «Сила судьбы» Дж. Верди, «Борис Годунов» М. Мусоргского, «Князи Игорь» А. Бородин, «Евгений Онегин», «Пиковая Дама» П. Чайковского, «Саломея» Р. Штрауса и др. Именно здесь впервые миру были представлены балеты Чайковского «Спящая красавица», «Щелкунчик», «Лебединое озеро». Мариус Петипа и Федор Шаляпин, Константин Коровин и Всеволод Мейерхольд, Анна Павлова и Галина Уланова, Михаил Фокин и Александр Головин - все это история Мариинского театра.

ЭКСКУРСИОННАЯ ПРОГРАММА

Обзорная экскурсия по городу

12 и 14 мая 1999 года 13.00, 13 мая 1999 года 10.00

Экскурсия начинается от гостиницы "Санкт-Петербург".

Продолжительность экскурсии 4 часа.

На комфортабельном автобусе в сопровождении опытного экскурсовода Вы совершите увлекательное путешествие по историческим местам Санкт-Петербурга. Вы увидите основные достопримечательности города. В течение экскурсии Вы посетите Петропавловскую Крепость и Собор Святых Петра и Павла - усыпальницу императорского дома Романовых.

Экскурсия в Эрмитаж

13 и 15 мая 1999 года 10.00, 14 мая 1999 года 13.00

Экскурсия начинается от гостиницы "Санкт-Петербург".

Продолжительность экскурсии 3.5 часа.

Государственный Эрмитаж - один из старейших и интереснейших музеев мира. Музей располагается в 5 исторических зданиях, включая Зимний Дворец - официальную резиденцию Российских царей. Коллекция Эрмитажа насчитывает 3 миллиона произведений искусства от Античности до наших дней. Коллекция располагается в 400 залах музея.

Экскурсия в Русский музей

13 мая 1999 13.00

Экскурсия начинается от гостиницы "Санкт-Петербург".

Продолжительность экскурсии 3.5 часа

Saints Peter and Paul Cathedral, the burial place of Romanov Empire Dynasty.

Excursion to the Hermitage.

May 12 and 14, 99 10.00, May 13 and 15, 99 13.00

The tour starts from "Saint-Petersburg" hotel

Duration: 3,5 hours.

The State Hermitage is one of the oldest and largest museums in the world. The collection of the Hermitage number over 3 million items from prehistoric to modern times.

Excursion to the State Russian Museum

May 13, 99 10.00

The tour starts from "Saint-Petersburg" hotel

Duration: 3,5 hours.

Established in 1895 as the center of art and history. The museum owns the Russia biggest collection of paintings, sculptures, drawings, items of applied and folk-arts. The exhibitions show ancient icons and the collection of items of the 18th - 20th centuries.

Excursion to Petrodvoretz

May 12 and 14, 99 9.00, May 13, 99 13.00

The tour starts from "Saint-Petersburg" hotel

Duration: 4,5 hours.

The palace and park ensemble is a historical and architectural monument of the 18th - 19th centuries. Peterhof is a kingdom of fountains, the magic play of water that brings you back to epoch of Peter the Great.

Excursions to Tsarkoye Selo (Tsar's Village) and Pavlovsk

May 14, 99 13.00

The tour starts from "Saint-Petersburg" hotel

Duration: 6 hours.

The palace and park complex of Tsarskoye Selo is located twenty-five km south from St.Petersburg. You will visit parks and Ekaterininsky Palace — the summer residence of Empress Catherine the Great.

The Pavlovsk palace and park ensemble is located 27 km away from St.Petersburg. The Pavlovsk Park is one of the pearls of the world landscape art. You will visit Pavlovsky palace — the summer residence of Emperor Paul the 1st also.

Boat trip along the Neva River with cocktail and music on the board.

May 14, 99 22.00

The tour starts from "Saint-Petersburg" hotel

Duration: 3,5 hours.

From the board of the comfortable boat you will enjoy the beautiful views of St.Petersburg. You will see the embankments of the Neva River with palaces, gardens and monuments. It will be one of the perfect impresses of your stay in St.Petersburg.

Русский музей был основан в 1895 году, как центр искусства и истории России. Музей был открыт в 1898 году и назван в честь своего основателя "Императорский музей прекрасных искусства имени Александра Третьего". Коллекция музея — уникальное собрание живописи, скульптуры, рисунков и предметов народного творчества от эпохи Древней Руси до наших дней.

Экскурсия в Петродворец

13 мая 1999 9.00, 14 мая в 13.00

Экскурсия начинается от гостиницы "Санкт-Петербург"

Продолжительность экскурсии 4,5 часа

Петродворец (ранее Петергоф) находится на южном побережье Финского залива в 29 километрах от Санкт-Петербурга. Дворцово-парковый ансамбль Петродворца — уникальный исторический и архитектурный памятник XVIII — XIX веков. Его создание началось в 1714 году. На протяжении 10 лет создавались уникальные ландшафты Нижнего и Верхнего парков, дворцы Монплеизир, Марли, павильон Эрмитаж, три фонтанных каскада и другие фонтаны.

Петродворец — царство фонтанов. Причудливая игра воды переносит Вас в эпоху Петра Первого.

Экскурсия в Царское Село и Павловск

14 мая 1999 9.00

Экскурсия начинается от гостиницы "Санкт-Петербург"

Продолжительность экскурсии 6 часов

Царское село находится в 25 км от Санкт-Петербурга. Этот город полон поэзии, — здесь учился Пушкин, здесь провела свои отроческие годы Анна Ахматова. Вы посетите Екатерининский дворец — летнюю резиденцию Екатерины Второй, совершите прогулку по одному из красивейших в мире парков.

Потом Вы отправитесь в Павловск — летнюю резиденцию Павла парковой архитектуры.

Теплоходная прогулка по Неве с ужином

14 мая 1999 года 22.00

Экскурсия начинается от гостиницы "Санкт-Петербург"

Продолжительность экскурсии 3,5 часа

Белые ночи — уникальное явление в природе. В это время Санкт-Петербург приобретает особенно красивые очертания. Дворцы, парки, памятники, набережные "проплывут" перед Вами в сумерках Белых Ночей.

Экскурсия "Храмы Санкт-Петербурга"

15 мая 1999 16.00

Экскурсия начинается от гостиницы "Санкт-Петербург"

Продолжительность экскурсии 4,5 часа

Вы посетите четыре главных собора Санкт-Петербурга

Tour of the Churches of St.Petersburg. **May 15, 99 16.00**

The tour starts from "Saint-Petersburg" hotel
Duration: 4,5 hours. (price includes concert)
You will visit the most beautiful churches of St.Petersburg.

St. Isaac Cathedral - one of the finest architectural monuments of the 19th century (architect A. Montferrand), the former principal cathedral of the Russian capital, largest cathedral of the city able to accommodate about 10 000 audience. The cathedral is graced with 112 solid granite columns weighting up to 115 tons each, and about 400 relieves and bronze sculptures. The observation platform on the colonnade provides a magnificent view of the city. Our Savior on the Blood Church was built in 1907 as memorial church to honor Russian emperor Alexander II, just on the spot of crucial terrorists attempt upon him. A sample of "Russian style" architecture and decorative art at the edge of the 19th - 20th centuries. Mosaic attire of the church (over 7 000 sq.) was created under the design of 30 artists, among them V. Vasnetsov, N. Nesterov, A. Ryabushkin, V. Belyaev, N. Kharlamov.

The Cathedral of Holy Virgin Icon of Kazan (Kazansky Cathedral) was constructed by the order of the Russian emperor Paul I "to resemble" St. Paul's Cathedral in Rome. The cathedral is a kind of monument, commemorating the Russian victory in Patriotic War of 1812. This is the burial place of the great Russian warrior Mikhail Kutuzov. At present, the museum's display is dedicated to the history of the Orthodox religion in Russia, the history of Western Christianity, and religious art. It possesses an enormous collection of cult objects and paintings.

Saints Peter and Paul Cathedral - was built in the early 18th century, the burial place of Romanov dynasty. There was the burial ceremony of last Russian Tsar Nicolay II, his family and their servants in July 1998 here. You can attend the wonderful sacred music of The Male Choir of St.Petersburg, which the Service for the dead during the burial ceremony.

MALE CHOIR OF SAINT - PETERSBURG

Among the great number of mixed choruses the male one - is the real rarity. The Male Choir of St.Petersburg was created in January 1993 with the support of such outstanding people as Dmitrij Likhachov, Vladimir Spivakov, Maris Yansons.

The Choir consists of 25 professional musicians. A lot of Russian finest composers - Tchaikovsky, Rachmaninov, Chesnokov, and Arkhangelsky - are featured in the Choir's songbook.

The Male Choir of St.Petersburg has performed in the most prestige concert halls of St.Petersburg. In July 1998 the Choir has sung the Service for the dead during the burial ceremony of the last Russia's Tsar Nicholas II, his family and their servants. You can attend the wonderful sacred music of the Male Choir of St.Petersburg during the excursion "The churches of St.Petersburg"

бурга - Исаакиевский собор построен по проекту архитектора О. Монферрана. Это главный кафедральный собор города и одно из крупнейших культовых зданий мира. Собор окружен 112 гранитными колоннами, каждая из которых весит 115 тонн. На фасаде собора Вы можете увидеть 400 рельефов и бронзовых скульптурных композиций. Со смотровой площадки собора, расположенной на колоннаде, окружающей купол открывается прекрасный вид на город.

Храм Спаса-на-Крови был построен в 1907 году в память о гибели императора Александра Второго, который погиб на этом месте от рук социалистов. Храм - пример "русского стиля" в архитектуре XIX - XX веков. Особенность храма - мозаика, которой украшен Храм снаружи и изнутри. В работе над созданием мозаичных панно принимали участие такие известные русские художники, как В. Васнецов, Н. Нестеров, А. Рябушкин, В. Беляев, Н. Харламов.

Собор Иконы Казанской Божьей Матери был построен по приказу Императора Павла Первого и должен был "повторить" Собор Святого Петра в Риме. Собор воздвигнут в честь победы России в Отечественной войне 1812 года. В соборе похоронен М.И.Кутузов - главнокомандующий Российской армии во время этой войны. В настоящее время в соборе находится музей истории религии. В соборе вы сможете услышать прекрасную православную церковную музыку в исполнении Мужского Хора Санкт-Петербурга.

Собор Святых Петра и Павла - построен в начале XVIII века. Усыпальница императорского дома Романовых. Здесь состоялась церемония захоронения останков последнего Российского императора Николая Второго, членов его семьи приближенных.

МУЖСКОЙ ХОР САНКТ-ПЕТЕРБУРГА

Мужской Хор Санкт-Петербурга был основан в 1993 году. Несмотря на свой юный возраст, Мужской Хор Санкт-Петербурга под управлением Вадима Афанасьева сразу стал одним из ведущих коллективов города. За пять лет своего существования Мужской Хор Санкт-Петербурга успел побывать в Иерусалиме, где получил благословение главы русской православной церкви Архимандрита Феодосия, в Испании, Сербии, Македонии, Германии и Южной Корее. Хор выступает на лучших площадках Санкт-Петербурга: Большом зале Филармонии, Казанском соборе, Малом зале Филармонии, соборе Святых Петра и Павла и других. В 1998 году известная звукозаписывающая фирма EMI-classics осуществила запись CD, в который вошли духовные произведения русских композиторов и народные песни. Вершиной деятельности Хора этого периода явилось участие в захоронении останков последнего Российского Императора Николая II, его семьи и приближенных, которое состоялось 16 и 17 июля 1998 года в Царской Усыпальнице Петропавловской крепости. И снова, как и несколько веков назад, хор был рядом со своим государем и провожал его в последний путь.

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THE INFLUENCE OF HORMONAL REPLACEMENT THERAPY ON IMMUNE SYSTEM IN PATIENTS WITH HYPERGONADOTROPIC OVARIAN INSUFFICIENCY

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Objective: To study the influence of steroid hormones on interferon (IFN) status indices and cytotoxic activity of natural killer (NK)-cells index in patients with hypergonadotropic ovarian insufficiency.

Methods: 20 patients with secondary hypergonadotropic amenorea (23-37 yrs.) were examined; the control consisted of 28 healthy women of reproductive age. All women had normal female caryotype 46/XX. IFN status and cytotoxic activity of NK-cells indices were investigated in the blood serum before and during cyclic hormonal replacement therapy (HRT).

Results: The initial cytotoxic activity of NK-cells and IFN status indices were higher then in control ($p < 0.05$). Under the influence of estradiol there was a decrease of cytotoxic activity of NK-cells index by 18.9%, production of IFN-a/b – by 19.5% and IFN-g – by 37.5% ($p < 0.01$). Against the background of maximum progesterone influence the cytotoxic activity of NK-cells increased by 8% ($p < 0.05$), IFN-g production – by 19% ($p < 0.01$) and IFN-a/b production – by 9% ($p > 0.05$). Common serum IFN indices before and during HRT were higher than in control ($p < 0.05$).

Conclusions: The results demonstrate the influence of sexual steroid hormones on leukocytes ability to produce IFN-a/b/g and cytotoxic activity of NK-cells and allow to assume that estrogens in the progesterone deficiency favour the decrease of these indices. Gestagens, in their turn, stimulate the leukocytes ability to produce IFN-a/b/g and cytotoxic activity of NK-cells.

ABO-ISOIMMUNIZATION PROGNOSIS

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Objective: predelivery prognosis of immunoconflict in the course of clinical observation of ABO-incompatible pregnancy.

Methods: 177 pregnant and their new-born infants were examined. Peculiarities of anamnesis are studied, significance of serologic methods of diagnosis is determined, some clinico-laboratorial indices are estimated (bilirubin, electrolytes K^+ , Na^+ , hemoglobin, erythrocytes and their correlation). For the first time condition of hemomicrocirculation at ABO-incompatible pregnancy and the conjunctiva index are studied with the help of biomicroscopy of eyeball conjunctiva vessels in the area of the external corner of an eye. A statistical programme

Statgraf was used for quantitative treatment of the data.

Results: analysis of the pregnant's Rhesus-factor dependence of ABO-immunization is carried out. In the course of determination of the group agglutinins titre with the help of parallel agglutination in the salt and serum medium, four variants of the group agglutinins titre level are revealed in the ABO-isoimmunized pregnant. Peculiarities of their dynamics and correspondence to the level of severity of the hemolytic disease of newborn are revealed too. Besides it is found out that the erythrocytes, hemoglobin and bilirubin indices are pronouncely dependent on indices of the level of electrolytes K^+ and Na^+ ($r=0.889$, $p < 0.05$). Study of hemomicrocirculation in the ABO-isoimmunized pregnant revealed definite changes of ratio between the arteriola and venule diameter and bloodflow.

Conclusion: More accurate determination of possible ABO-isoimmunization of a pregnant may be achieved only by complex use of anamnestic and clinical data. The most valuable of them are: 1) dynamic study of the group antibody titre of a pregnant with the help of the husband's erythrocytes, 2) study of indeces of hemoglobin, erythrocytes and electrolytes (K^+ , Na^+) level, 3) hemomicrocirculation.

EFFECTS OF ESTROGEN/PROGESTIN THERAPY IN WOMEN WITH OVARIAN INSUFFICIENCY ASSOCIATED WITH WEIGHT LOSS

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Objective: To study the influence of estrogen/progestin therapy on the hypothalamic-hypophysial-ovarian system in patients with hypogonadotropic ovarian insufficiency associated with weight loss.

Methods: We studied 38 women with menstrual disorders related with weight loss, aged 16-25, who had received estrogen/progestin therapy during 3-6 months. A basic examination and re-examination after the end of the treatment was carried out to determine clinical status, fat metabolism, FSH, LH, prolactin, estradiol and progesterone blood levels. Percent body fat was measured by dual energy X-ray absorptiometry. The test with exogenous estrogen's was performed before and on the 20-30 th day after the end of the therapy.

Results: 70% of patients gained weight during estrogen/progestin therapy. Body mass index and percent body fat increased at the end of the treatment ($p < 0.05$). The resumption of menses happened in 50% patients. The restoration of positive feedback mechanism (PFBM) between the ovaries and hypophysis occurred in 39.5% patients. The frequency of menses and PFBM resumption positively correlated with weight gain ($p < 0.05$). Menses and PFBM restored after patients had achieved approximately 90 % of ideal body weight.

Conclusions: Estrogen/progestin therapy can increase body weight, fat mass and restore the positive feedback mechanism between the ovaries and hypophysis and menstrual cycle in some patients with hypogonadotropic ovarian insufficiency associated with weight loss.

SANDOGLOBULIN IN PROPHYLAXIS AND TREATMENT OF SEPTIC COMPLICATIONS AFTER CESAREAN SECTION

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Objective: To compare the efficacy of different types of IgG using in prophylactic and treatment of septic complications after Cesarean section.

Methods: 85 women undergoing Cesarean section were divided into two groups. 15 women (study group) were given Sandoglobulin, 70 women (control group) - Roncoleukin. The postoperative period was monitored in each patient. The rate of septic complications, adverse effects and the length of hospitalization were compared in the groups. Results obtained in the two patient groups were compared by t-test or χ^2 -test, as appropriate.

Results: Septic complications were less severe in the study group -uterus subinvolution and endometritis prevailed. There were no such severe complications as metroendometritis or peritonitis. Uterus subinvolution were seen in 4,1% of the patients in the study group vs 9,1% in the control group ($p < 0,05$), endometritis in 3% vs 6% ($p < 0,05$), respectively. The average length of hospitalization was 9,4 days in the study group vs 13,8 days in the control group ($p < 0,01$). There were no adverse effects related to Sandoglobulin administration. In the control group there were two cases of allergic reactions (shivering) resulted in stopping of Roncoleukin administration.

Conclusions: Sandoglobulin administration results in reducing of the rate of septic complications and the length of hospitalization. The tolerability of Sandoglobulin is very good. Therefore, using of Sandoglobulin is an effective method of prophylactic and treatment of septic complications after Cesarean section.

ANTIOXIDANTS AND ADAPTATION IN GESTOSIS PATHOGENESIS IN PREGNANT WOMEN

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Objective. *The purpose of the study was to estimate functional state changes of separate antioxidant system components in serum and whole blood in women with physiologic pregnancy in their I, II, III trimesters and in pregnant women with different clinical forms of gestosis.*

Methods. *320 patients with different forms of gestosis (edema, nephropathy (stages 1-3), preeclampsy and eclampsy) were clinically observed using modern clinico-physiological and biochemical methods. Women with normal pregnancy in their I (20), II (25), III (56) trimesters served as control.*

Results. *In all clinical forms of the pathology 6-tocoferol deficiency and redox homeostasis disturbances in non-protein thiodisulfide and ascorbate systems were proved to be more obvious than the same blood factors in women with normal pregnancy in the III trimester.*

Conclusions. *On the basis of the date received the concept on antioxidant deficiency role in late toxicosis genesis in pregnant women is suggested. The suggested concept is proved by positive therapeutic effect observed while using antioxidants in complex treatment of the pathology studied.*

THE EFFECT OF BENZODIAZEPIN TRANQUILISATORS ON THE PSYCHOSOMATIC STATUS OF THE HIGH RISK GROUP OF PREGNANT WOMEN

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Objective. *The purpose of the study was to regulate the contractile activity of the uterus through the central nervous system and to have some psychotropic effect.*

Methods. *We used noseepam (a tranquilisator of 1.4-benzodiazepin type produced in Russia) in a dose of 0.01-0.02g in 32 women at 39-40 weeks pregnancy. The control group (32 women) received no noseepam.*

Results. *The effect of noseepam was estimated from its influence on the psychosomatic state and contractile myometrial activity of the pregnant women. The psychosomatic state was defined with the help of a scale, which was first designed in collaboration with the Psychological Department of St.Petersburg University (V.V.Abramchenko, T.A.Nemchin).*

Conclusions. *The data obtained suggest that administration of benzodiazepin compounds normalizes myometrial contractility, improves psychosomatic status and anxiety in pregnant women and prevents abnormal labor and delivery in the group of high-risk perinatal pathology. Noseepam has no negative effect on the fetus.*

EXPERIMENTAL STUDY OF THE SENSITIVITY PREGNANT AND NONPREGNANT UTERUS TO THE BRADYKININ AND PARMIDIN

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Objective. *The purpose of the present study was to examine the sensitivity of isolated nonpregnant and pregnant rat uterus to spasmogenic action of bradykinin and effect of antibradykinin agent - pyridonol-carbamat (Parmidin).*

Methods. *Nonpregnant and pregnant (in I, II and III periods of normal pregnancy) rats Wistar line were used for investigations.*

Results. *It was showed that sensitivity of pregnant uterus to the bradykinin increased as nonpregnant uterus especially during I and III periods of pregnancy. Parmidin antagonizes bradykinin - induced contractions in rat isolated uterus and its effect correlated with changes of sensitivity of the uterus to bradykinin.*

Conclusions. *According to our reckoning parmidin it is possible to recommend for complex treatment of abnormal labor activity. Clinical aprobations are necessary for using this drug in obstetrics.*

PRIMARY ANTIPHOSPHOLIPID SYNDROME: THERAPEUTIC MANAGEMENT DURING PREGNANCY

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Objective: *To test hypothesis that plasmapheresis could be effective in complex therapy of primary antiphospholipid syndrome in women with recurrent pregnancy losses during pregnancy.*

Methods: *We studied 156 pregnant women with primary antiphospholipid syndrome and recurrent pregnancy losses. Tests to detect LA, including the activated partial thromboplastin time (APTT), the kaolin clotting time, were performed.*

Results: *Positive results were found in all pregnant women with associated clinical complications. In the first group (81 patients) we used immunosuppressive drugs in low doses - prednisone (5-10 mg/day) or methipred (4-8 mg/day) combined with low-dose aspirin (100 mg/day) and, if necessary - anticoagulant treatment subcutaneous heparin. In the second group (75 cases) we used corticoids, aspirin and plasmapheresis 3 times during pregnancy. 8/81 (9,8%) pregnancies in the first group and 5/75 (6,6%) in the second group terminated as preterm labor on 32-34 weeks of gestation. After 3 session of plasmapheresis it was noted absence of LA in venous blood in 65/75 (86,7%) of patients. Normalization of haemostasiogramm (decrease of thrombodynamic potential index), plateletys aggregation, disappearance of DIC markers was noted in 70/75 (93,3%) of patients. Successful pregnancies have been obtained in 67/75 (89,3%) cases.*

Conclusion: *Plasmapheresis may be effective in complex therapy of primary antiphospholipid syndrome in patients with recurrent pregnancy losses.*

THE CHANGES OF THE LEVEL OF BLOOD ANTIOXIDANT AND PROOXIDANT ACTION OF METALLOPROTEINS IN NORMAL PREGNANTS

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From the blood of normal pregnant women it was isolated, purified and determined the quantitative changes of the antioxidant (Cu,Zn-SOD, catalase, ceruloplasmin, transferrin) and recently discovered new prooxidant action metal lipoproteins (cytochromes B_{558}^{III} , B_{558}^{IV} , obtained from membranes of erythrocytes, and suprol - superoxide producing lipoprotein, obtained from blood serum), as well as cytochrome B_5 soluble fraction of erythrocytes. In comparison with control data from practically healthy women blood, the level of cytochrome B_5 and Cu,Zn-SOD increases (42 and 38,8% correspondingly) at pregnancy. Simultaneously the level of other metalloproteins decrease (20%, 10,3%, 22,3%, 33,3% for cytochromes B_{558}^{III} , B_{558}^{IV} , ceruloplasmin and transferrin correspondingly). This data testify the breach of the levels producing and utilizing the superoxide radicals metalloproteins in the blood of pregnant women. It's important to notify, that indicated data in the content of pro- and antioxidant metalloproteins don't be a marker of oxidative stress, because they take place in the limits of physiological adaptation reactions. This thesis is confirmed by our previous data according the compensation of lipid peroxidation and antioxidant system balance in pregnant organism.

PROBLEMS OF ANTENATAL DIAGNOSTICS OF INTRAUTERINE INFECTION

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Materials that define the present situation of the teaching on intrauterine infections, of solved and unsolved problems of their diagnostics in mother and fetus are summed up in the report. Possibilities of intrauterine infections diagnostics with the use of immunofermental analysis, PCR, RT-PCR are discussed. An algorithm is suggested for diagnostics of intrauterine cytomegaloviral and other viral infections. Primary tasks of infectious perinatology have been stated.

CHANGES IN PARAMETERS OF PLATELET-VESSEL HAEMOSTASIS IN PREGNANTS WITH INSULIN DEPENDENT DIABETES MELLITUS (IDDM)

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Objective: To study the parameters of platelet-vessel link of haemostasis in pregnant with IDDM.

Methods: We examined 315 women, from them 130 pregnant with various gestational ages, suffering IDDM. We defined: platelet aggregation by photometry of plasma, level of von Willebrand factor (vWf) by indirect immunofluorescent analysis and calculation of quantity of circulating endothelial cells in blood by phase-contrast microscopy. Results of research were processed by a method of variational statistic and by means of the correlation analysis.

Results: Speed and intensity of platelet aggregation in the patients with IDDM were increasing via progressing of gestation, and were higher than in healthy pregnant. The greatest platelet activity was observed at pregnant with expressed diabetic retino- and nephropathy. In pregnant with IDDM both markers of endothelial dysfunction, quantity of circulating endothelial cells and vWf, showed significant increase of their level in process of growth of gestation and in comparison with healthy pregnant. These markers were authentically connected with increasing of duration of diabetes, manifesting of diabetic vascular complications and severity of accompanying gestosis.

Conclusions: The found out changes in parameters of platelet-vessel haemostasis in pregnant with IDDM show their undoubtedly important role in pathogenesis of progressing of diabetic vascular complications and development of gestosis.

PECULIARITY OF ADAPTATION OF NEONATES AND PLACENTA IN THE CASE OF GENITAL CHLAMYDIOSIS IN MOTHERS

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Objective: To assess condition of newborns in early neonatal period in comparison with results of immunomorphological investigation of placenta in mothers with genital chlamydiosis.

Methods: 64 mature neonates were assessed, among them 48 were born from mothers with genital chlamydiosis (main group) and 16 – from healthy mothers (control group). Immunoluminescent investigation of placenta included search of fixed immune complexes (IC) by the method of luminiscent antibodies using serum against human globulins, antifibrinogen, anticomplement, and monospecific serums for assessment of IgA, IgM, IgG. Histological investigation of placenta was held in parallel.

Results: Only 19 neonates of main group were healthy, 29 neonates had neurological disorders, decreased processes of adaptation, they had lower body weight, higher incidence of hypoxia. Their condition correlated with changes in placentas. In placentas of sick neonates the highest level of pathogenic IC with excessive contents of C3b fraction of complement and IgM, were seen. In places of pathogenic IC storage, marked involutive–dystrophic changes, pathological immaturity of chorionic villi, inflammatory changes in a form of deciduitis and choriodeciduitis were seen.

Conclusions: Our investigation showed, that chlamydia can invade chorionic villi, led to formation of pathogenic IC which can cause the dysfunction of feto-placental complex and worsen perinatal outcome.

MATERNAL RISK FACTORS FOR RETINOPATHY OF PREMATURITY - A POPULATION-BASED STUDY

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Objective: Evaluation of possible perinatal risk factors for retinopathy of prematurity (ROP).

Methods: An ophthalmological study of 227 premature infants was performed. Their gestation age (GA) ranged between 26 and 35 weeks and their birth weight (BW) between 850 and 2500 grams. ROP was revealed in 85 infants. The group of mothers of the infants studied comprised 79 women (there were 6 twin deliveries). Prospective and retrospective data were collected from the medical records of antenatal and neonatal units. Well known statistical methods including correlation analysis, chi-square test, Pearson's test were applied to determine the most important predicting maternal factors for ROP development.

Results: The analysis of maternal risk factors indicated their different significance for ROP development. ROP high risk factors appeared to be related to low GA (under 32 wk gestation) ($r^2=0,48$), complications of the current pregnancy (sub- and decompensated anemia, chronic feto-placental deficiency, chronic intrauterine fetal hypoxia) ($r=0,42$) and labor complications (pathologic maternal hemorrhage over 400 ml) ($r=0,40$). Relative fetal risk to be noted include maternal extragenital pathology, threatened abortion, late gestosis of stage II-III severity, gestation pyelonephritis.

Conclusions: Risk factors of ROP development are likely to be numerous and nonspecific, but at risk pregnancy is considered to be one of factors contributing to ROP onset.

DIAGNOSIS OF BACTERIAL VAGINOSIS IN PREGNANTS

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Objective: The aim of the research is the investigation of the microbiological characteristics of bacterial vaginosis (BV) in pregnant women.

Methods: In this work the results of examination of 94 pregnant women with BV are presented.

Results: Abundant milky homogeneous vaginal discharges with the characteristic odor of spoiling fish have been noted in 86,2 % women with BV, moderate - in 13,8 %. During vaginal examination there were no any inflammatory changes in vagina of most women. Hyperemia have been noted in 16,4 % patients, pruritus - in 18 %, dysuria in 8,6 % cases. A vaginal pH of women with BV was greater than 4,5 (4,5-7,1) and amine test was positive in 100 % cases. In 14,8 % cases an amine test was determined (+), in 40,8 % - (++) in 44,4 % - (+++). The signs of BV revealed clue cells by vaginal microscopia - in 100 % patients, absence of leukocytes massive quantity of microorganisms with predominance of *Bacteroides* species, *Mobiluncus* species, *Gardnerella vaginalis* and absence of *Lactobacillus*.

The cultural examination of patients with BV have showed the growth of 6-8 types of microorganisms with predominance of obligate anaerobic bacteria in a very high titer (10^{10} - 10^{11} COE/ml). There were no *Lactobacillus* in 59 % women with BV, in 41 % - their titres were very low.

Conclusion: So, the most correct diagnosis of BV in pregnant women must be based on the comparison of microbiological, microscopia results and clinical data.

HUMORAL AND MUCOSAL IMMUNITY IN UNCOMPLICATED AND COMPLICATED EPH - GESTOS OF PREGNANTS

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Objective: to study the humoral and mucosal immunity in uncomplicated and complicated EPH - gestos of pregnant.

Method: 66 women with uncomplicated (n=20) and complicated with EPG - gestos (n=42) of pregnancy were studied. In serum and cervical mucosa samples the level of Ig A, Ig M, Ig G were controlled.

Results: the concentration of serum Ig G in uncomplicated cases was $10,2 \pm 0,6$ g/l, whereas the level of mucosal Ig A, Ig M and Ig G was $0,25 \pm 0,06$ g/l; $0,19 \pm 0,06$ g/l; and $0,60 \pm 0,03$ g/l comparatively. The statistically significant ($p < 0,05$) increase in the level of serum Ig M and mucosal Ig M was detected in complicated cases. The degree of this increase correlated with the severity of toxemia in pregnant women. The level of serum Ig G was lowest in edema cases, Ig G in mucosa was not detected at all, whereas mucosal Ig A was increased in 1,7 once more in comparison with healthy pregnant.

Conclusion: we conclude that the results reflect the disturbance in protein metabolism in EPG-gestos and on other hand demonstrate the relative activation of the mucosal immunity.

THE EFFECT OF VIROLEX AND IMMUNOGLOBULIN THERAPY ON THE SPECIFIC ANTIVIRAL NEONATAL IMMUNITY WITH HERPES-VIRUS INFECTION

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Objective: the outcomes of researches conducted in Center by the employees of the department of neonatal pathology and the lab of clinical immunology have shown that the herpes-virus infection in the neonates develops on a background of immunodeficiency. The severity of infection clinical manifestations correlated with a decrease of specific antiviral antibodies level and the deficit of cells, inherings to T-helper subpopulation. The aim of the given research was the analysis of the specific humoral immunity condition in the neonates with a herpes-virus infection on a background of therapy.

Method: 52 neonates with herpes infection affirmed with the help of methods of DNA-hybridization and ELISA were inspected. The levels of specific anti-virus IgM and IgG antibodies were determined by ELISA. The Student method for the statistical analysis was used. The specific anti-virus drug virolex and intravenous immunoglobulin containing a plenty of antibodies of different specificity including anti-herpes simplex virus (HSV) and cytomegalovirus (CMV) for the treatment of children were applied. In cases of the complicated herpes-virus infection an immunoglobulin of 4-th generation - pentaglobin was applied.

Results: the outcome of the disease for children treated by combined immunochemotherapy was favourable. The application of an immunoglobulin was accompanied by the increase of a level of the specific IgG antibodies with $1,15 \pm 0,08$ up to $1,36 \pm 0,07$ points ($p < 0,05$). The tendency to normalization of the cell immunity is marked.

Conclusion: it was shown that pentaglobin containing in a high titre of anti-HSV and anti-CMV antibodies is the most preferential at usage in the complex therapy of herpes-virus infection for the neonates.

EFFECT OF EXTRACTUM ELEUTHEROCOCCI FLUIDUM ON THE PROLACTIN BASAL LEVEL IN THE BLOOD OF THE WOMEN DURING LACTOGENESIS

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Objective: To explore the effect of extractum eleutherococci fluidum (EEF) on secretion prolactin (PRL), 8 breastfeeding women (experimental group) were treated with oral EEF (5 ml, four times daily) during 8 days after delivery.

Methods: Determination of the basal level of serum PRL was performed on the 1st, 4th and 8th day after delivery. The experimental and control groups consisted of 8 breastfeeding women of 18-38 years age. Blood samples (5ml) were attained from catheterized forearm vein. Serum PRL was measured using the immunometric method. Student's t-test was used for statistical analysis.

Results: In the experimental group of the women PRL concentration on the 1st day was 3919 -+273 mU/l, and in the control it equaled 3869-+273 mU/l. PRL concentration on the 4th day was increased and reached 4396-+315 mU/l in experimental and 4123-+157 mU/l in control groups. Yet the difference between PRL concentration for the 1st and the 4th day in both groups is not significant ($P>0.05$) On day 8 post-partum PRL level for both groups was decreased: 3913-+449 mU/l in experimental and 3223-+346 mU/l in the control group. But the difference between the 8th and 1st, 4th day for the experimental group was not significant ($P>0.05$) and one for control group was significant ($P<0.05$)

Conclusions: EEF retards the fall in the basal level of PRL in lactating women. Therefore the oral treatment may be a good profilactic measure for bettering initiation of lactation and further ensure the sufficient level of milk secretion for breastfeeding the infant.

NITRIC OXIDE DONORS FOR TREATMENT OF PRETERM LABOR

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Objective: To estimate the effect of nitric oxide donors on prolongation of pregnancy.

Methods: The effect of transdermal glyceryl trinitrate (GTN) was studied in 18 women who had clinical signs of preterm labor such as painful uterine contractions (two or more per 10 minutes for more than two hours). Patches "Deponit" which deliver 10 or 5 mg GTN transdermally over 24 hours were applied to the abdomen. 10 patients were treated by "Deponit 10" and 8 patients - by "Deponit 5". Patches were replaced every 24 hours. Treatment was continued until contractions were completely ceased (usually from 5 to 10 days).

Results: The duration of pregnancy prolongation is 68 days (28 days at average). In general patches "Deponit" were well tolerated. Maternal blood pressure, pulse rate and fetal heart rate controlled by CTG-monitoring were not affected by GTN therapy. The pregnancies of the most of patients were prolonged until term. Only 1 woman delivered at 29 weeks because of cervical incompetence and ruptured membranes despite of the treatment. All babies born by mothers who were treated by GTN had Apgar scores 7 and more at the first minute and did not have any adverse cardiorespiratory alterations.

Conclusion: The rapid and effective action of transdermal GTN and the simplicity of its administration suggest that GTN patch therapy may be used for the management of preterm labor.

LAPAROSCOPIC HYSTERECTOMY FOR OBESE PATIENTS

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Objective: *traditional gynecological operations, especially hysterectomy, for obese patients are very difficult, traumatic and often have complications. The aim of the study was to indentify a feasible and safe technique of laparoscopic hysterectomy for these patients and to investigate the results of its application.*

Methods: *The indication for laparoscopic operations was fibromyoma of uterus (9-12 weeks), complicated with frequent uterine bleeding. Laparoscopic operations were made using pneumoperitoneum of 12-14 mmHg combined with traction of the abdominal wall. After uterine mobilization by uni- and bipolar electrocautery, we placed 2-3 endoloops at the uterine neck and vessels, transected them and finished laparoscopic hysterectomy, or used vaginal approach.*

Results: *Laparoscopic hysterectomies (11 laparoscopic and 1 laparoscopic assisted vaginal hysterectomy) were made for 12 obese patients, 45-60 years old. The weight varied between 95-130 kg. The mean operation time was 120 minutes. We have seen no serious complications following laparoscopic operation.*

Conclusions: *Laparoscopic hysterectomy is safe and beneficial to the obese patients.*

EXCRETION OF NITRITES, NITRATES AND OLIGOPEPTIDES IN NEWBORNS URINE UNDER INTRAUTERINE INFECTIONS

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Objective: *It is known that inflammatory process induced by infection increases nitric oxide (NO) synthesis as a result of cytokine activation of macrophages and endothelium cells. Oligopeptides as a products of protein catabolism usually appeare in the urine due to intoxication of organism. The goal of the present work was to analyze the level of nitrites and nitrates (final products of NO metabolism) and oligopeptides excretion in intrauterine infected (IUI) newborns simultaneously with investigation of clinic status in early neonatal period.*

Methods: *32 newborns with high risk of IUI were observed. They were subdivided into two groups. 20 newborns were infected by different agents in intrauterine period. 12 newborns have problems with adaptation in early postnatal period without clinical manifestation of IUI. Control group consists from 42 healthy newborns. The level of nitrites (NO_2^-) and nitrates (NO_3^-) excretion in newborns urine has been detected by Griess reaction.*

Results: *The average level of nitrite and nitrate excretion in infected newborns was higher than in control group both at day and night time, but normal circadian rhythm has been retained. The individual analysis has shown the infringement of circadian rhythm in some children with IUI. The high level excretion of nitrites and nitrates was correlated with changes on the part of several functional systems (CNS and cardiovascular system). The level of oligopeptides in infected newborns was also higher than in control group, but their circadian rhythm was not observed.*

Conclusions: *Investigation of nitrate, nitrite and oligopeptide excretion may be useful for diagnostics of intrauterine infections.*

FEATURES OF EARLY ADAPTATION AT NEWBORN HIGH INFECTIOUS RISK

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With the purpose optimization of tactics conducting was surveyed 156 newborn from the mothers with chronic infectious diseases (ChID). Was established, that ChID of the mother renders serious adverse influence on a condition of a fetus and current of early adaptation at newborn, resulting to development hypoxic, infectious and toxic defeats of brain (49,6 %), intrauterine hypotrophy (29,4 %), intrauterine and postnatal infection (30,4%). Was established 4 variants of current early neonatal of the period depending on a condition of the child at birth and dynamics of a condition at the first hours o'clock. For newborn high infectious risk (even clinical healthy) are characteristic the infringements hemodynamics (later closing of fetal communications, decrease contractile activity of myocardium, high common peripheral vascular resistance, arterial hypotension), endocrine of adaptation (low level adrenocorticotropin and cortisone), metabolism (decompensated metabolic and respiratory-metabolic acidosis, increase activity of blood enzyme), the change of the factors of specific and not specific protection (hypoimmunoglobulinaemia G is less 9,8 g/l, the decrease of a level scale gamma-interferon is less 8 ME, the increase of parameters activity peroxide oxidation of lipids - MDA is more 6 ng/ml).

DISTURBANCES IN HYPOTHALAMIC REGULATION OF REPRODUCTIVE FUNCTION UNDER THE INFLUENCE OF XENOBIOTICS

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Objective: *The experimental study of the mechanism of non-specific character of the female reproductive system response to xenobiotics possessing a neurotoxic (toluene, dioxane) or gonadotoxic effects (formaldehyde).*

Methods: *The gonadoliberin (GnRH) content in preoptic area of hypothalamus and medial eminence was estimated by radioimmunoassay. Biogenic amines and their metabolites were determined by HPLC with electrochemical detection, the intensity of free radicals oxidation (FRO) and total antioxidative activity - by chemiluminescent methods. The measurement of lipids and proteins peroxidation as well as activity of antioxidative enzymes (superoxide dismutase, catalase and glutathione peroxidase) has been also performed.*

Results: *It has been shown in experiments on Wistar female rats that changes of normal circadian rhythm of GnRH secretion are revealed as the first signs of reproductive system disfunction at chronic inhalation of toluene and dioxane, but not formaldehyde. Early disturbances in GnRH production are connected with the alterations in neurotransmitter systems controlling this process, especially in preoptic area enriched with dopaminergic and serotonergic terminals. The circadian rhythms of FRO intensity and lipids peroxidation are also disturbed under the influence of xenobiotics, that is however lacking at comparison with proteins peroxidation and activity of antioxidant systems. This suggests about the relative stability of proteins and mechanisms of antioxidative defence towards the action of pollutants. The failure of normal rhythmicity of processes studied could be considered as a consequence of desynchronization of oscillator function of suprachiasmatic nucleus of hypothalamus and pineal gland (melatonin secretion) under the influence of xenobiotics.*

Conclusion: *The disturbances of circadian rhythms of regulatory processes in hypothalamus including reproductive function could be regarded as a common reaction of an organism to xenobiotics possessing a neurotoxic effect.*

THE EFFECT OF THE NUMBER OF FETUSES ON PREGNANCY OUTCOME AFTER IN-VITRO FERTILIZATION

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Objective: *The multiple pregnancy rate after in-vitro fertilization (IVF) is about 28.2%. It is widely known that multiple pregnancy is one of the risk factors for mother and fetus. We studied the duration and outcomes of pregnancies in 2 groups of women, one group had one fetus, the other - two fetuses.*

Methods: *We examined 217 pregnant women who underwent IVF treatment of infertility. 178 patients had one fetus (group 1), and 39 women had twins (group 2). The investigation included all clinical and laboratory tests used in obstetrics.*

Results: *Spontaneous abortion on the 6-13 week of pregnancy occurred in 25.3% of cases in group 1; there were no such cases in group 2 in this term. Spontaneous abortion on the 14-22 week of pregnancy was observed in 12.8% of patients in group 2 and only in 2.3% - in group 1. Missed abortion was diagnosed in 12.4% and 2.6% in groups 1 and 2, respectively. Premature labor in term 32-36 weeks of gestation occurred in 33.3% of women in 2-nd group and only in 4.4% - in 1-st group. 55.6% of patients in group 1 and 51.3% in group 2 delivered at term.*

Conclusion: *The most dangerous terms for pregnancy after IVF are 6-13 weeks in singletons and 14-22, 32-36 weeks of gestation in twins. This requires more careful observation of the patients in these periods of pregnancy.*

HEPATODEPRESSIVE SYNDROME CAUSED BY PREGNANCY

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Insolvency of hepatocyte's reserve possibilities, characterised by decrease of its synthetic function followed by qualitative and quantitative inner link of hemostasis defects, is one of the variants of organisms disadaptation for pregnancy and it is called "hepatodepressive syndrome" (HDS). This research was aimed to the investigation of dynamics of hemostasiological and bioëchemical parameters of blood, peculiarities of pregnancy, labour and perinatal outcome, developed in women with diagnosed laboratory markers of HDS beginning from the first or the second trimester of pregnancy.

Subjects and methods: *We examined 32 patients with HDS and 24 women with normal pregnancy development. Clinical, hemostasiological(Tr, Fg, TT, KT, APTV, PTI), biochemical parameters were measured. The results were processed with the use of Student criteria.*

Results: *physiological increase of coagulating blood potential with the progression of pregnancy was not registered in women with HDS; decrease of thrombocytes number ($p < 0,01$); prolongation of APTT ($p < 0,001$); decrease of PTI ($p < 0,01$) was registered to the III trimester. Reliable decrease of FG level ($p < 0,01$), rise of 62- macroglobulin activity ($p < 0,001$), increase of transferrin concentration ($p < 0,001$), rise of transaminase activity ($p < 0,05$) were proved. Clinical evaluation of pregnant women with preclinically diagnosed HDS revealed that pregnancy and labour were complicated: preeclampsia developed in 93,7% of cases; fetoplacental insufficiency was diagnosed in 71,8% and intrauterine growth retardation — in 37,5% of cases.*

Discussion: *according to our data preclinical evaluation of biochemical and hemostasiological parameters is necessary for early diagnosis and following pathogenetic treatment of HDS in pregnancy.*

QUALITY DEVELOPMENT IN MATERNAL CARE – SPECIAL CARDIOOBSTETRICAL DEPARTMENT

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Special Cardioobstetrical Department (SCD) was organized in Samara region in 1994 aimed at improving the quality management in obstetrics, associating with cardiovascular pathology. Collaboration obstetrician with other specialists (cardiologist, cardiosurgion, neonatologist) and rational use of modern medical technology and equipment gave the possibility to achieve good results in medical, social and economic fields.

Our main efforts were concentrated on 3 directions:

1. Preconception rehabilitation, including formation and development of date-base about female population, suffering from cardiac disease; assesment of initial cardiac system's state and risk of adverse outcome or prognosis of potential pregnancy; selection time for conception, according with previous surgical and pharmacological treatment; choice of contraception method, if pregnancy lead to life-treatening status.

2. Managment pregnancy.

3. Perinatal care, accented on screening for congenital cardiac anomalies, prevention and therapy of perinatal asphyxia and intrauterine growth retardation.

The introduction of SCD in Health Care System not only significantly improved the quality in Maternal Care, but also contributed to the lowering of perinatal mortality and morbidity in Samara region.

PREGNANCY AND WOLFF-PARKINSON-WHITE SYNDROME – MATERNAL AND FETAL OUTCOME

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Objective: *to correlate the frequency of supraventricular tachycardia (SVT) in cases of WPW syndrome with gestational complications, fetal and newborn status.*

Methods: *two groups of pregnant women with WPW syndrome were studied: 10 patients suffering from frequent episodes of SVT, who required Cordaron treatment (I) and 8 patients with rare episodes, received potassium medication (II). In I cases (I) were performed radiofrequency ablation pathway Mahaim, but result was only palliative. Each patient underwent a surface EKG, Holter monitoring, color-Doppler echocardiography and, in selected cases, an electrophysiologic testing.*

Results: *there was significantly higher incidence of threatened abortion at 6-12 week of gestation (8 vs 3), EPH-gestosis (5 vs 1) and placental insufficiency (5 vs 1) in I group. All pregnancies terminated at term by vaginal delivery. In 5 cases (I group) labor complicated with inefficient uterine contraction, that was corrected by oxytocyn administration. There were no difference in Apgar score, birth weight, cord blood pH and short term morbidity between newborns I and II groups.*

Conclusions: *This study suggests, that although women with WPW syndrome have higher rates of pregnancy and delivery complications, their risk of an adverse fetal outcome is not appreciably increased. Appropriate surgical treatment before pregnancy and pharmacological therapy during gestation could provide the satisfactory conditions for fetal growth and development.*

However, due to very small number of patients, our results should be confirmed on larger study material.

INTRAUTERINE GROWTH RETARDATION: CTG, ULTRASOUND BIOMETRICS AND DOPPLER BLOOD FLOW

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Intrauterine fetal growth retardation (IUGR) is still a problem in obstetrics. The (IUGR plays an important role in the perinatal morbidity and mortality. IUGR is a multifactorial process having heterogeneous causes. A causal treatment is not yet available. At the Hamburg University Hospital the incidence of IUGR in premature babies and newborns was 19,1% over five years (1993-97). The percentage of premature babies with IUGR is 18,6%. 220 Patient were examined between January 1996 and July 1997. The overall mortality was 4,1%, the perinatal mortality was 3,6% and the neonatal mortality was 0,5%. In 1,4% of the 220 patients IUGR occurred. All cases with IUGR presented with severest IUGR associated with a weight below the 3rd percentile. $21 \pm 1,6$ cardiotocograms (CTG) per patient were registered on average. In 59,5% of the patients we detected noticeable CTG-findings (FSC7), in 40,5% CTGs were unremarkable till the delivery (FSC 8-10). Regression analysis showed that the pathological CTGs of 7 fetus with (IUGR were more often accompanied by a pH7,20 and Apgar7 in the intrapartal phase (odds-ratio 3,1, $p < 0,01$ and odds-ratio 2,4, $p < 0,05$). The time difference between the first pathological Doppler flow findings (gestation age - 33w6days) and the first borderline CTG recording (FSC 5-7 at 35w5days) was 13 days on average. In cases with pathological Doppler flow the time till a pathological CTG (FSC4) was detected 18 days on average. The time between the first detection of pathological Doppler flow findings and delivery was 21 days on average compared to 16 days on average after initial diagnosis of borderline CTGs (FSC 5-7) and 7 days on average (median 1,0 day) after initial diagnosis of pathological CTGs (FSC4). In 46 (21%) of the examined patients pathological Doppler flow findings occurred before the first noticeable CTG. In 22 (10%) of all cases with pathological Doppler flow findings no pathological CTG was recorded during the further course of pregnancy. In 21 cases (9,5%) a pathological CTG was present before the first noticeable Doppler flow findings. In 28 fetus (12,7%) GR was symmetrical, in 192 fetus (87,3%) the IUGR was detected by ultrasound biometry. In 124 pregnant women with pathological Doppler flow findings 15 fetus (12,1%) had an "enddiastolic zero flow" in the fetal aorta and 16 fetus (12,9%) in the umbilical artery. "Reverse flow" in the fetal aorta was detected in 5 (4%) fetus and in the umbilical artery was found in 4 (3,2%) fetus.

HORMONAL BACKGROUND IN WOMEN WITH SECONDARY OVARIAN SCLEROCYSTOIS IN HYPERPLASTIC PROCESSES OF ENDOMETRIA

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We have observed the hormonal background in 160 patients with endometric hyperplasia on the background of the secondary ovarian sclerocystosis. The investigation has been carried out in the proliferative stage of the menstrual cycle. It should be mentioned, that if the disease didn't exceed 3 years, the data showed the affection of hypothalamic-hypophyseal system, which was accompanied with the increase of gonadotropic secretion, strengthening of gonadotropic secretion was due to the increase of consideration FOG (27,12 mE/ml) control (16,1) and relative insufficiency LG (11,2 mm/E/ml) control (7,9) the decrease of LG/FOG state also showed the same. Increased stimulation of ovarian function by mean of FOG was accompanied with a certain increase of estradiol concentration (91,9 ne/ml) control (59.5) in the blood plasma. Clinically these phenomena were estimated by incomplete ovulation with the deficiency of yellow bodies in the form of incomplete secretion. Long-term (more than 3 years) stimulation of ovaries by mean of FOG resulted in progressive pathological process in endometria as a result of development of anatomical changes in ovaries with the formation of expressed secondary sclerocystosis. In this case hormonal background of the patient FOG (10,1 mm/Eml), LG (11,2), estradiol 68,5 was also changed. Clinically hormonal dislocations were characterized by the development of anovulation of DOB, with recurrent hyperplastic processes in endometria.

EARLY PREVENTIVE MAINTENANCE OF BONE BASIN DEFORMATION IN GIRLS OF DIFFERENT AGE

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Among the teenagers the group of risk on skoliosis makes 2%. This pathology in girls of different age can become the reason of deformation of a bone basin and number of obstetrics complications in reproductive age. We carried out inspection and treatment of 125 patients of 10 - 15 years old, suffering by a curvature of a backbone (I-IV degree skoliosis). 93 patients suffered from I-II degrees skoliosis and 32 patients - III-IV degrees. The basic complaints of the teenagers were: the phenomena be sick in a back the limited impellent activity and fast tiredness. Prescription of disease has made from 1 till 3 years and more often concided with beginning of school training, that specifies impotance of preservation bearing during employment. At the majority surveyed (88%) degree sexual development corresponded to age norm. The treatment of the patients consist in realization of a complex of medical gymnastics. By everyone patients was carried out till 10 - 15 of procedures through 1 - 2 days or daily - depending on a degree of skoliosis. The medical effect was high, if medical gymnastics was combined with manual therapy. At skoliosis of I-II degree after a rate of complex therapy seldom there was a necessity of continuation of treatment, patient with III-IV degrees skoliosis were required repeated rates of treatment.

HYPERBARIC OXYGENATION AS A METHOD OF INTENSIVE THERAPY OF POSTHYPOXIC DISTURBANCIES OF CEREBRAL BLOODFLOW IN NEONATES

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Objective: *To assess effectiveness of hyperbaric oxygenation (HBO) in intensive therapy of posthypoxic disturbances of cerebral bloodflow (DCB) in neonates.*

Methods: *HBO was used in 130 asphyxiated neonates. Antioxidant fermentative system, free radical oxygenation, permeability of membranes of erythrocytes, sorbtion ability of erythrocytes, ABG and neurosonography were assessed before and after 1, 2, 3 steps of HBO.*

Results: *HBO leads to 1,5 - 2 fold increasing of glutationperoxidase activity, changes of SOD and catalase are absent, 1,5 - 2 fold decrease of free radical oxygenation could be seen. HBO leads to normalization of permeability of membranes of erythrocytes, ABG, decreases cerebral edema and improves clinical condition of patients.*

Conclusion: *HBO increases adaptation of neonates with DCB, have detoxicative, membranestabilasing effect, reduces time of staying in intensive care unit to 2 days comparing with routine methods.*

DIFFERENTIAL DIAGNOSTICS OF PELVIC ACTINOMYCOSIS WITH ADVANCED GYNAECOLOGICAL CANCER

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Objective: Actinomycosis is filamentous gram-positive anaerobic bacterium. Clinically, actinomycosis can mimic malignancy. The differential diagnosis with carcinoma is difficult. The aim of our exploration is definition of history's clinical pathological and biological analyses' significance.

Methods: We analysed all the records of 9 women (mean 43,2 years). 4 of them had intrauterine devices (IUD) for the previous 4-8 years. All patients presented leucocytosis, fever, anaemia. The clinical examination showed a palpable hypogastric mass. Ultrasound and computed tomography showed an unilateral or bilateral large masse arising from adnexum, adherent to the uterus and compressing the urinary bladder with peritoneal carcinomatosis.

Results: A preoperative diagnosis of advanced ovarian cancer was made. Laparotomy reveled a large inflammatory mass involving uterus, adnexa and other pelvic structures. Bilateral salpingoophorectomy and total abdominal hysterectomy were performed. After pathological analyses, actinomycosis was diagnosed (was detected specific actinomycotic granuloma). All patients were treated postoperatively with ampicillin.

Conclusions: Pelvic actinomycosis is a rare inflammation which clinically and radiologically can successfully mimic ovarian cancer. Differential diagnosis is difficult but some symptoms such as leucocytosis, fever, history of IUD use, absence of serum tumor markers, typical inflammatory appearance during surgery should prompt a diagnosis of actinomycosis. An intraoperative frozen section should be obligatory for all patients. Culture methods of diagnosis, Gram-Weigert staining, hematoxylin staining should be used followed by histological verification.

EARLY OVARIAN CANCER'S POTENTIALS AND LIMITATIONS OF ORGAN – PRESERVING TREATMENT

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Objective: The number of the cases of early ovarian cancer is determined with improvement of diagnostic methods, so working up of organ-preserving treatment is actual. There is no common opinion for managing of early ovarian cancer as yet.

Method: Our study was carried out in 176 women bearing borderline and malignant tumors of ovaries stage 1 and treated since 1980 till 1995 in the department of gynecological oncology. 46 of them were treated by organ –preserving methods and other 130 underwent radical surgery.

Results: The study revealed no difference in the results of treatment stage 1 a,b patients due to the method and showed the dependence of outcome from histological type of tumor. The worst results were reached in stage 1c tumors with low degree of morphological differentiation. Adjuvant chemotherapy did not influence survival.

Conclusion: The question about potential use of preserving surgery: bilateral salpingoophorectomy with preserving the uterus is discussed in connection with high risk tumor recurrences in reserved ovary (in 2 of 28 patients of fertile age). Modern achievements in reproduction technologies allow to discuss different variants of sparing treatment, that can be fulfilled only in large centers with adequate staging and monitoring.

FACTORS OF EARLY OVARIAN CANCER'S PROGNOSIS

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Objective: *Dethe-rate from ovarian cancer is very high taking the first place among other localizations of gynaecological cancer and the fifth place among all possible reasons of womens death in develop countries in spite of devloment of modern diagnostics' methods of early ovarian cancer (sonografy, magnetic resonance, computer tomografy). It is not exclude that histological polimorphizm of ovarian cancer can be one from other showings of pathogenesis factors, determing variety of clinical showings and disease's course and influencing by this on the prognosis. Exploration of factors' influence on early ovarian cancer's prognosis present in this abstract.*

Methods: *It contains datas about 147 women, who were ill with bordeline and malignant tumours of ovary 1 a,b,c st. And treated since 1980 till 1995. The patients are ranged from 16-79 years (mean 46,1 years). All patients were exposed to surgical or combined treatment (operation and adjuvant chemotherapy). Regimen VAK, CMF, PVB, CAP were applied from 1-6 courses depending on histological tumour's structure. Histological tumour's exploration was passed according to international histological classification of surface epitelial tumours of the ovary (modified from Scully, 1979). Staging started with a careful laparotomy by FIGO classification (1987). Postoperation monitoring was passed in time of 3-5 years.*

Results: *The worst five-years results were disclosed with clear cell tumours (66,7%) as compared with serous, mucinous and endometrial tumours (92,9%; 90,0%; 93,3%) and with poorly-differetiated as compared with well-differentiated lesions, too. Methods of treatment did not influence on its results.*

Conclusions: *So there was conclusion about histological structure and differentiation have a deciding mean for prognosis for patients with early ovarian cancer.*

COURSE AND OUTCOME OF PREGNANCY IN PATIENTS WITH INFECTIOUS HYPERSECREATORY DIARRHEA

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Objective: *To characterize the peculiarity of the course of pregnancy and labor in patients with hypersecretory diarrhea of infectious nature.*

Methods: *Clinical, biochemical, statistical.*

Results: *Due to hypersecretory diarrhea a threat of pregnancy termination developed in all women in the 1st trimester; in 36% of pregnant women in the 2nd trimester and in 83% - in the 3rd trimester. Spontaneous abortion was observed in 16%, preterm labor - in 12% of women. The appearance or worsening of the course of gestosis was revealed in 42% of pregnant women, premature placental separation - in 26%. Frequency of fast and precipitate labor made up 18%. I degree dehydration was seen in 56%, II degree in 13% of women. A decrease in plasma Na^{+1} concentration by 10% was noted in of the patients, by 15% and more in 21% of pregnant women. Almost in 1/3 of patients an increase in urea and residual nitrogen was recorded. The frequency of complications depends on the degree of dehydration. In patients with hypersecretory diarrhea the frequency of complications in pregnancy and labor was less by 2-2.5 times.*

Conclusion: *Pregnant women with hypersecretory diarrhea must be classified under the group of very high risk for complicating pregnancy and labor.*

ACUTE FATTY LIVER OF PREGNANCY: A REPORT OF 25 CASES

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To develop an optimal algorithm of early diagnostics of acute fatty liver of pregnancy (AFLP) an analysis was carried out of 25 prospectively detected cases of AFLP in 1985-1997 yrs. The age of patients was 21-40 years, among them 16 – nulliparas, 9 – multiparas. Clinical and statistical analysis has shown that AFLP develops mainly at the gestational age of 28-30 weeks. Two phases in clinical manifestation has been detected: 1. Nonicteric phase with length till 8 weeks, characterized by weakness, headaches, dizzinesses, weight loss, pruritus, heartburn (with exception of gastrointestinal disorders). 2. Icteric phase, with severe clinical picture (duration - from 2-3 weeks to 1-2 days). Laboratory studies have shown a significant decrease of total serum protein, Hb and of platelet count, 2-10-fold increase of bilirubin and liver enzymes activity (AsAT, AlAT); hypocoagulation resulting in DIC. ECG has detected myocardial metabolic changes associated with right ventricle hypoxia and signs of its overload. The designed algorithm of early AFLP detection has promoted timely diagnosis and appropriate therapy. Only 2 women died. The rest are under thorough surveillance. The research is being continued.

GESTOSIS AND OBSTETRICAL BLEEDING AS A CAUSE OF MATERNAL MORTALITY

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Objective. *The aim of our investigation was the elaboration and introduction of the system of correlation conditions of threaten maternal mortality from Gestosis / G/ and Obstetrical bleeding / OB /.*

Methods. *We have done retrospective analysis the histories of labors complicated with OB and G, all which had mortal out come.*

Results. *In 61,2% – 64,0% of cases somatic pathology took place. Among those died from OB inhabitants of the countryside / 54,5% / predominated and in the cases of G city – dwellers prevailed / 62,0% /. The untimely diagnostic the early forms of G, lack of anamnesis data, neglecting of laboratory findings and late direction to the hospital were reveled during the observation in the conditions of out – patient department. Of all the cases / 33,5% / with OB had late admission to the hospital. Protracted conservative therapy, the late beginning of operation, irrational infusion and transfusion therapy, unadequative observation and treatment in puerperal period were reveled in the analyze of labors histories with OB and G. The cases when OB occurred after abdominal delivery prevailed / 35,6 % /.*

Conclusions. *The complex system correction of given conditions was introduced, the algorithms of high-risk groups observation were elaborated, department of anesthesiology were improved, infusion therapy methods and indications to the operative delivery were perfected.*

ANALYSIS OF PERINATAL MORTALITY RATE IN LUBLIN DISTRICT BETWEEN YEARS 1982 – 1997

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Objective: The purpose of this study was to analysis of the structure of perinatal deaths in Lublin district between years 1982 - 1997.

Material and methods: We evaluated all of perinatal deaths in the hospitals in Lublin district between years 1982-1997. Statistical analysis was performed. We need $p < 0,05$ for statistical significance.

Results: Amongst the fetuses who died before and during the course of labour those who dominated were ones with birth weight ranging from 1000g to 2499g.

The percentage of the fetuses in term dead prenatally was relatively high 30-40%. Most of the dead postnatally newborns' birth weight was 1000-2499g. Premature newborns' death represented 80% of all postnatal death cases. We observed significant decrease in perinatal mortality rate (increase in survival rate) of prematurely born infant with birth weight from 500 to 999g, and especially weighing from 1000 to 2499g between 1982-1997. We observed more than twice drop in infants' perinatal death rate in 1997 in the second group of infants.

Conclusions: These results show that basic influence on biological loss in our population has still premature delivery.

TREATMENT OF ENDOMETRIOSIS IN THE PRESENCE OF ULCER DISEASE OF THE STOMACH AND DUODENUM

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In case an endometriosis patient has concomitant ulcer disease of the stomach and duodenum, it is necessary to exclude oral administration of hormones. Ignoring this recommendation leads to ulcer disease exacerbation; if the stomach is affected and treatment lasts for long (years), some unpleasant oncology sequels may occur.

Thus, the patient should be treated with such parenteral drugs as Depo-Provera, OPK, Zeladex, , and so on. In the patients of 30 years of age and older rectal suppositories with Methyltestosterone 10 mg once a day beginning on the 5th day of the menstrual cycle for 10-15 days may be used. On the 17th, 19th, and 21st days of the cycle OPK 250 mg is injected I/M.

Besides, therapies aiming anti-oxidation and immunomodulation are indicated. Hyperbaric oxygenation, Ethymizole, and radon baths also have a positive impact on the treatment outcome.

Treatment for endometriosis at any age in the presence of ulcer disease may be initiated with Zeladex or Decapeptyl lucrine during 6 months.

Should ulcer disease (stomach ulcer) repeatedly relapse, a decision on further treatment for endometriosis may be reviewed in favor of the surgical intervention.

TREATMENT OF ENDOMETRIOSIS IN THE PRESENCE OF VARICOSE DISEASE

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Complicity of the situation is stipulated by the fact that the overwhelming majority of drugs used for endometriosis treatment cause a shift in the clotting system towards hypercoagulation. Releasing gonadotropines, first of all Zoladex and Decomeptyl-Depo, present an exception to the rule. That is why in order to get the rheologic and clotting blood properties normalized, it is expedient in a process of treating endometriosis to give Trental 0.1 2 to 3 times a day, antioxidants, and apply bandages with anticoagulation cremes. Hyrodoththerapy [treatment with leaches] vaginally is indicated for pelvic phlebitis. Besides, Detralex and Madecassor, angioprotectors toning the veins up may be given per os. Other components of this complex therapy (hormones, immunomodulators, antioxidants and so on) are administered as usual. Perspective of surgical treatment necessitates prevention of thromboembolic complications to be carried out through giving heparin, indirect anticoagulants, and early patient ambulation in the postoperative period.

PRENATAL DIAGNOSIS AND FETAL GENE THERAPY TODAY AND TOMORROW

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Availability of foetal tissues at any stage of human embryonic development, started with fertilized oocyte supplemented by tremendous progress in molecular and cytogenetical techniques resulted in almost ultimate and efficient solution of all major problems concerned with PD of inherited disorders (ID). The treatment of ID should be considered as a next logic step in this direction. The latter goal might be achieved either by cell (I) or by gene (II) therapies. The first approach is already at use for treatment of foetal anemia caused by Rh-conflict. It might be also applied to some other blood diseases with early manifestation (hemoglobinopathies) and even to liver cell diseases (PKU, Heamophilia A & B). Abundance of different stem cells in the foetal blood in conjunction with still insufficient immune response reaction of the foetus substantiate more experimental cell therapy studies. The report outlines results relevant to delivery of different expression gene constructions loaded with human or with some marker genes to the fetuses of mice -biological models of common human diseases- cystic fibrosis or Duchenne Muscular Dystrophy. Original gene vehicles such as synthetic oligopeptides or microspheres loaded with relevant expression gene constructions were tried after administration into mother or directly into the foetus (intramniotically). Efficient transplacental transfer of human genes incorporated into different vehicles was proven by FISH and PCR techniques after v/v, i/m or i/p administration.

THE AETIOLOGICAL ASPECTS OF ENDOCERVICITIS

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Objective: To evaluate cervical infection in patients with endocervicitis.

Methods: 44 woman with acute (1 group) endocervicitis and 89 with chronic endocervicitis (2 group) were studied. For detection of *Chlamidia trachomatis*, *Herpes simplex* type 2 and *Cytomegalovirus* the method of Dot-hybridization with biotin-labeled DNA probes was used. Endocervical samples were taken in each case for microbiologic study for identification of bacterial agents by the usual methods.

Results: The detected infectious agents are represented in the following table.

Infection agents	1 group (%)	2 group (%)
<i>Chlamidia trachomatis</i>	59,1	46,1
<i>Herpes simplex</i> type 2	56,8	56,2
<i>Cytomegalovirus</i>	40,9	50,6
Bacteria ($>10^4$ /ml.)	36,4	16,9
<i>Micoplasma</i> spp.	9,1	10,1
<i>Candida albicans</i>	18,1	19,1

Isolated infection such as *Chlamidia trachomatis* was found at 9,1% of the patients 1 group and 10% of the patients 2 group, HSV-2 – at 7,9% (2 group), CMV – at 4,5%(2 group). The diagnostic titers of bacterial agents such as *Staphilococcus aureus*, *Staphilococcus epidermidis*, *Enterococcus* spp., *Escherichia coli* were detected 2,2 times more frequently at the patients with acute endocervicitis – 36,4% (at 2 group – only 16,9%). Mixed infection was detected in 72,7% patients of 1 group and 78,7% - 2 group.

Conclusion: Endocervicitis are mostly associated with mixed infection (in 72,7% patients of 1 group and 78,7% - 2 group).

PARAMETERS CIRCULATION IN ARTERIA CEREBRI ANTERIOR AT NEWBORNS WITH PERINATALE PATHOLOGY

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With the purpose of definition of parameters cerebral circulation (CC) we used transcranial ultrasonic dopplerometria artery cerebra anterior (ACA) at 40 term infants in the age of 1-6 day (the scanner Aloka-650, transducer 5 MHz) at children with the complicated current of the perinatal period (basic group - 32 children with neurology diseases, hypotrophia, infants of diabetic mothers) and control group (8 healthy newborn).

Maximal value of systolic cerebral blood flow velocity in ACA at all newborn control group changed from 25,6 up to 51 cm/s, in too time at 22 (71 %) children of the basic group it was lower 25,6 cm/s ($P < 0,001$), and here have come 8 of 10 children of diabetic mothers. Minimal value of diastolic cerebral blood flow velocity in ACA also was authentically above at newborn control group (8,1 - 14,0 cm/s). The systolic-diastolic ratio (S/D). index of resistance (Rl) at children of the basic group had the greater disorder of meanings (in the control an index S/D has made 2.71 - 3.92. Rl - 0.63 - 0,74). At newborn with Rl > 0.75 it was marked more expressed neurology diseases with prevalence of an oppression of cerebral function, than at children with Rl $< 0,75$.

PROPHYLAXIS OF FETOPLACENTAL INSUFFICIENCY IN THE 1 TRIMESTER OF PREGNANCY

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It is known that permanent threatening abortion in the 1 trimester is the reason of early fetoplacental insufficiency and fetal intrauterine growth retardation.

Aim: *To evaluate the possibility of dydrohesterone use for prophylaxis of fetoplacental insufficiency in women with the history of habitual abortion.*

Methods: *Clinical, hormonal, histological, ultrasound and doppler examination, mathematical analysis.*

Object: *32 women in the 1 trimester of pregnancy, from the risk groups for miscarriage.*

Results: *Decreased concentrations of fetoplacental complex hormones were registered in 40,6% of women without signs of threatened abortion. In other cases symptoms of permanent threatened abortion were diagnosed. Markers of urogenital infection were revealed in 46,9%.*

Treatment of threatened abortion and hormonal disbalance correction with dydrohesterone were held according to standard scheme together with symptomatic therapy. Pregnancy progressed in 91% of cases. Normal hormonal status was shown in 77,7% of women and symptoms of threatened abortion disappeared in 90,6% of cases. Fetoplacental insufficiency was not diagnosed or was compensated in 90,7% of women.

Conclusion: *Use of dydrohesterone in complex therapy of threatened abortion in 1 trimester helps to end the threat of abortion, to normalize hormonal status and it is effective in the prophylaxis of primary fetoplacental insufficiency.*

STATE OF CENTRAL HEMODINAMIC AS RESULT OF RESPIRATORY DYSTRESS SYNDROM (RDS) IN PREMATURE INFANTS

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Objective. *To reveal a specialties of central hemodinamic in development respiratory disorders in premature infants.*

Methods. *30 newborns 29-36 week of gestation were examined. No clinical manifestation of respiratory insufficiency in 12 infants. RDS was occurred in 18 infants. Apgar score criteria was 5-6. Echocardiography were performed at the real time scanner "Alloka - 680". Blood pressure were measured by oscillometric method used by blood pressure monitor "EME" (England). PO_2 , Pco_2 partial pressure were measured by transcutan control system "Radiometr" (Denmark).*

Results. *Three types of hemocirculation were revealed: hyperkinetic, hypokinetic, normokinetic. Hyperkinetic type was dominated in 34-week gestation infants. Most evident changes were exposed in infants there had hypokinetic type. Persistent pulmonary hypertension was observed in first hours of life. Rapid increasing cardiovascular insufficiency are followed by this changes.*

Conclusions. *Results of investigation evident about early involvement cardiovascular system in pathological process and allowed to understand RDS pathogenesis in premature infants.*

PROINFLAMMATORY CYTOKINES ARE MARKERS OF FETAL GROWTH RETARDATION

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Objective: To investigate the immune interrelationships between mother and fetus in chronic placental failure which leads to intrauterine fetal growth retardation (ILJGR).

Methods: In order to study the immune mechanisms of IUGR pathogenesis, we examined the levels of proinflammatory cytokines such as interleukin-1-alpha (IL-1a), interleukin-1-beta (IL-1b), interleukin-8 (IL-8) and tumor necrosis alpha factor (TNF-a) in maternal blood and in amniotic fluid. Cytokines were tested by double-antibody enzyme immunoassay. Amniotic fluid was obtained by amniocentesis before cesarean section or induced labor.

Results: The study was performed on 10 pregnant with preeclampsia, on 10 women with preeclampsia combined TUGR and on 10 females with uncomplicated pregnancy (control group) in 28-38 weeks of gestation period. The blood levels of IL-1a, IL-8 and TNF-a in patients with preeclampsia were more elevated than in healthy pregnant women. In pregnant with IUGR the blood levels of IL-1b, IL-8 and TNF-a were elevated more considerably than in women with preeclampsia without IUGR. Fetal funic blood from mothers with IUGR was characterized by higher levels of inflammatory cytokines (especially TNF-a and IL-1b) than those in fetuses of other groups. Women with IUGR had the most elevated amniotic fluid levels of IL-1b, IL-8 and TNF-a than women with normal pregnancy and pregnant with preeclampsia. High levels of inflammatory cytokines led to the intensification of hypercoagulation, decreased levels of antithrombin III and protein C, plasminogen consumption, increased levels of Fibrin degradation products.

Conclusions: These results suggest that the levels of proinflammatory cytokines can serve as diagnostic criteria for IUGR. Cardinal signs of IUGR are elevated levels of IL-1a and TNF-a in maternal blood and IL-1b, IL-8 in amniotic fluid.

INTERLEUKIN-8 IS AN INDICATOR OF INTRAAMNIOTIC INFECTION

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Objective: The purpose of this study was to examine the relationship between asymptomatic intrauterine infection and levels of proinflammatory cytokines in amniotic fluid, maternal and fetal blood.

Methods: Amniotic fluid of 23 pregnant with high risk of intrauterine infection was received by amniocentesis before amniotomy or cesarean section. Anhydrous period lasted from 1 till 6 hours. All patients had no sexually transmitted diseases and pathogenic microorganisms in cervical/vaginal culture. Cesarean sections were performed in 8 cases for the usual obstetric indication. 15 women delivered per vias naturales. Proinflammatory cytokines such as interleukin-1-alpha (IL-1a), interleukin-1-beta (IL-1b), interleukin-8 (IL-8) and tumor necrosis alpha factor (TNF-a) were tested by double-antibody enzyme immunoassay.

Results: All patients were divided in to two groups according to the results of placenta's histology examination. Group 1 was composed of women (n=12) without histologic responses of intraamniotic infection. Group 2 comprised (n=11) women with histologic evidence of inflammation (parietal deciduitis or choriodeciduitis, funiculitis). In these pregnant amniotic fluid levels of all three cytokines were elevated. In maternal blood elevated levels of IL-8 (253 ± 12 pg/ml, $p < 0,001$) and TNF-a (245 ± 11 Pg/ml, $P < 0,001$) were identified. Fetal funic blood from mothers of 1-st group was characterized by higher levels of TNF-a (306 ± 24 pg/ml, $p < 0,001$) and IL-1b (48 ± 4 pg/ml, $p < 0,001$). Only amniotic fluid level of IL-8 (786 ± 81 pg/ml, $p < 0,001$) was directly correlated with the presence of fetal inflammatory responses and the absolute neutrophil count of funic blood.

Conclusions: Interleukin-8 is a cytokine produced by human decidua in response to bacterial products. High levels of interleukin-8 in amniotic fluid can be regarded as an indicator of intraamniotic infection.

HISTOCOMPATIBILITY ANTIGENS IN PRIMARY CHRONIC PLACENTAL FAILURE

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Objective: To study compatibility of married couples according to the HLA antigen system in normal and complicated by primary chronic placental failure pregnancy.

Methods: A clinical and immunologic study was carried out in 40 couples with primary chronic placental failure and 30 couples with normal pregnancy. The heterogeneity degree in married couples was studied according to histocompatibility antigen of A and B locuses. HLA antigens were tested by standard lymphocytotoxic Terasaki test in Dausset modification. Chronic placental failure diagnosis was based on the results of ultrasound fetometry and placentometry, cardiotocography, dopplerography of uteroplacental blood flow.

Results: A tendency to enlarge the wife and husband's compatibility as regards leukocytic antigens of A and B locuses in primary chronic placental failure was determined. In those couples that are compatible by 3 HLA antigens of A and B loci, chronic placental failure symptoms appeared earlier than in cases of compatibility by 2 HLA antigen. In 26 cases of compatible couples pregnancy tends to end in spontaneous abortion or preterm labor. In 13 cases pregnancy was complicated by preeclampsia, severe gestation anemia. The heterogeneity degree in married couples correlated with some immune and hemostatic parameters of pregnant women. In those couples that are compatible by 2 or 3 HLA antigens pregnant cellular and humoral immunity was more depressed, the level of acute phase reactants was more increased and the concentrations of acute phase contrreactants was more decreased. Only 6 patients with normal pregnancy were compatible by I HLA antigens of A or B loci with their husbands.

Conclusions: The percentage of compatible couples was higher in the primary chronic placental failure group, as compared to normal pregnancy. Probably, the complications of pregnancy were connected with specific HLA-determinations which mainly control the power of immune reactions.

ELEVATED LEVEL OF PROINFLAMMATORY CYTOKINES IS AN EARLY SYMPTOM OF ENDOMETRITIS AFTER PARTUS CAESARIUS

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Objective: Postoperative endometritis in puerperium are a grave risk factor to mother's invalidization and mortality. Preventive application of antibiotics leads to asymptomatic onset of the disease and delay of the full value complexive therapy.

Methods: The study was performed on blood of 18 puerperas with a high risk of postoperative endometritis. Lymphocyte subpopulations were determined by indirect surface immunofluorescence cy-tokines (IL-1-alpha, IL-1-beta, IL-8, TNF-alpha) were tested by double-antibody enzyme immunoassay, hemostatic condition was examined by coagulation tests on 1-st, 3-rd, 5-th and 7-th days of puerperium.

Results: It was observed that the levels of inflammatory cytokines of women on the 1-st day after partus caesarius were elevated. In patients with an uncomplicated postoperative period (1st group) the concentration of inflammatory cytokines decreased and normalized from 3-rd till 7-th days. Symptoms of endometritis appeared in cases when the levels of inflammatory cytokines increased from 3-rd till 7-th days after abdominal delivery (2d group). Contents of IL-1-alpha and TNF-alpha increased more considerably than the levels of IL-1-beta and IL-8. Concentrations of inflammatory cytokines correlated with immune and hemostasis parameters. In females of the 2-nd group hypercoagulation was intensified, levels of antithrombin III and protein C were decreased, fibrin degradation products were noted, the number of CD3+, CD22+ lymphocytes was decreased, the ratio CD4+/CD8+ was reduced neutrophil phagocytic activity was intensified.

Conclusion: Elevated levels of inflammatory cytokines in the blood of puerperas from 3-rd till 5-th days past partus caesarius can be regarded as a prognostic sign of postoperative endometritis.

PATHOGENETIC ASPECTS OF HORMONAL THERAPY IN EARLY CLIMACTERIC DISORDERS

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The regularities of large pulses of LH and FSH in serum of patients with the typical climacteric syndrome (CS) in pre- and early postmenopause, with postovarioectomic syndrome and women with the physiological menopause studied in the speaker of examination and treatments. The beginning of these pulses together with increasing basal level of both gonadotropins is already found out in normally cycling premenopausal women. The frequency and amplitude of hormonal fluctuation was higher in pathological menopause. Hormonal factors of the patients with postovarioectomic syndrome were greatly drawn, near to values of pathological postmenopause, reflecting deeper disorders in the system of regulation on the background of distant gonads. The substantial part of prominent LH and FSH pulses was clinically accompanied with typical hot flashes. The adequate HRT by estradiol lead to disappearance these pulses of hormones in serum and hot flashes in women. The dynamics of these changes had dosedependent character. The additional usage of gestogen potentiated the effect of estrogen. The results of research show that the fluctuating model of gonadotropins secretion changes is typical for early climacteric disorders. From this point of view the climacteric period of woman should consider as a private event of anovulation of ovarian genesis. Intensity and length of given stage correlated with clinical manifestations of early climacteric disorders as age, so and surgical genesis. Though there changes are only reflects the degree of neurohypothalamic disorders, they closely connected with the deficit of estrogens. According to this, pathogenetic HRT of typical CS needs short course of large estrogen doses combined with gestogen with following gradual diminution down to supporting doses for prophylaxis of later climacteric disorders. The favorable therapeutic effect of estrogens is based on the raising E_2 in serum before the level of follicular phase of menstrual cycle. The following reduction of gonadotropins level and cessation their fluctuating pulses reflects a normalization of functioning of the high neurohypothalamic centres. Its velocity is defined by the source dose of estrogens. Connection of gestogens promotes greater reducing of the gonadotropins level, potentiated the effect of estrogen.

HYSTERECTOMY : REALITY & PERSPECTIVES

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Purpose: to improve immediate and distant results of surgical treatment in women with myoma of uterus combined with genital endometriosis and/or endometrial hyperplasia.

Methods: statistical (on retro and prospective material), paraclinical criteria, functional (ultrasound research, doplerography, electroencephalography), endoscopic (hysteroscopy, colposcopy, laparoscopy), hormonal (follicle-stimulating hormone, luteotropic hormone, prolactin, estrogens), histomorphological and immunological methods.

Results: 1. Rational usage of described methods on the stage of investigation allowed to raise the level of pre-surgical diagnosis of uterine myoma combined with genital endometriosis and endometrial hyperplasia. 2. Methods of impartial monitoring of the patient during early post-surgical period and on the stage of rehabilitation (hospital - out-patient service - physiobalneosanatorium - resort) were instilled into practice. 3. We also worked out criteria and high risk groups of patients in matters of oncopathology and planned the ways of reducing the number of immediate and distant negative results of surgical treatment.

Conclusions: Our work allowed to improve the quality of diagnostics in patients with combined uterine hyperplasia and quality of treatment and rehabilitation in these patients.

HIGH FREQUENCY OSCILLATORY VENTILATION IN RESPIRATORY TREATMENT OF NEONATES WITH SEVERE RESPIRATORY DISTRESS-SYNDROME

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The respiratory distress syndrome most commonly defines the severity of condition in neonates, especially in prematures. In this situation the conventional ventilation may have low efficacy and can be followed by enough severe complications. As the alternative to conventional ventilation we used high-frequency oscillatory ventilation provided by Sensor-Medics 3100A ventilator.

Basic indications to HFOV were severe RDS, massive meconium aspiration syndrome (MAS), congenital malformations complicated by increased elevated pulmonary vascular pressure and pulmonary shunting (congenital diaphragmal hernia). We used HFOV in 50 neonates, 75% of them developed severe RDS and had the birth weight less than 2 kg.

We noticed definite rapid positive changes in 70% of patients receiving HFOV combined with surfactant replacement therapy (Exosurf). The criteria of efficacy were changes in arterial blood gases, x-ray pictures, improvement of hemodynamics.

We also noticed significantly less such severe complications as intestinal emphysema, pneumothorax and bronchopulmonary dysplasia. We also get the possibility to rapid decrease oxygen concentration down to 21 %. The amount of severe neurological complications (such as intraventricular hemorrhages, periventricular leucomalacia, and brain edema) also decreased when the severe RDS resolved rapidly.

The obtained data give us the possibility to consider the HFOV as a prospective advanced therapy of neonatal RDS.

COLORED AND PULSED DOPPLER SCANNING IN DIAGNOSING OF BENIGN AND MALIGNANT OVARIAN TUMORS

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Objective: *We report our experience to determine value of colored and pulsed Doppler sonography in diagnosing between benign and malignant ovarian tumors.*

Methods: *64 patients with ovarian tumors were investigated by using of transabdominal and transvaginal sonography scanning with colored and impulse Doppler. Average age was years ranging from 35 to 65 years. The middle size of tumor was from 7 to 12 sm. During investigation intramural neovascularization zones were found out. Indices of blood supplying resistance (RI - resistance index, PI - pulsatility index in ovarian, external and internal iliac arteriae), presence or absence of protodiastolic excision, minimal and maximal systolic speed were analyzed. All patients were operated by laparoscopy or laparotomy with further morphological investigation.*

Results: *Neovascularization zones were detected in 98% of malignant tumors and in 1.5% of benign tumors. Protodiastolic excision was observed in 89% of benign tumors. There were no cases of ones among malignant tumors. The middle range of RI was 0.46 ± 0.2 in malignant and 0.69 ± 0.1 - in benign tumors. Sensitivity and specify were 86.2% u 86.7%, respectively. Correspondingly the middle ranges of PI were 1.08 ± 0.06 u 0.5 ± 0.12 , with sensitivity 89.2% and specificity 90.4% The summary of all blood supplying speeds has the best prognostic result with sensitivity 99% and specificity 85%.*

Conclusions: *The using of colored and impulse Doppler sonography provides to diagnosed of benign ovarian tumors during screening procedures.*

USING OF THE PROTEINS OF HUMAN REPRODUCTIVE SYSTEM IN DIAGNOSTIC OF GENERATIVE HEALTH'S DISORDERS IN COUPLES WITH PERINATAL MORTALITY OF CHILD

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Objective: to study the concentration of the specific (SAMG-2 - specific alpha-microglobulin-2) and non-specific (SAL-2 - soluble antigens of leucocytes-2) proteins in menstrual blood and sperm in parents with perinatal losses in order to estimate the state of generative health.

Methods: clinical, immunodiffusion analysis.

Results: the decrease of secretorial function of endometrium was determined in 56,1% of women with perinatal losses according to the level of SAMG-2 in menstrual blood. Chronic endometritis was founded in 88,2% of women according the level of SAL-2. The decrease of sperm's fertility was determined in 49,3% of men according to the level of SAMG-2 in sperm. Chronic prostatitis was founded in 51,7% of men using the examination of SAL-2 level.

Conclusions: the examination of concentration of SAMG-2 and SAL-2 in menstrual blood and sperm in parents with perinatal mortality of child is the high-informative method of diagnostic of reproductive health disorders.

IMMUNOLOGIC RESISTANCE SYNDROME

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A comparative study of the immune status of the inhabitants of the plain with the maritime climate being changed to the continental one (the Kaliningrad, Alma-Ata regions) and the natives of highlands (Zailiyskij Alatau and the Pamirs) has been undertaken.

The indices of the immune status for the Kaliningrad and Leningrad region inhabitants were found to be the following: SD3 content equals $45,3 \pm 1,6\%$, SD4 - $20,2 \pm 1,2\%$, SD8 $\pm 14,7 \pm 0,9\%$, SD16 $\pm 9,1\%$, SD4/SD8 relationship makes up $1,4 \pm 0,13$. The relevant values for the foothills and highlands inhabitants showed more considerable fluctuations due to the climatic discomfort.

Factors of non-specific immunologic reactivity were estimated: the monocyte content being $8,07 \pm 0,6\%$, the phagocytic index of monocytes - $44,3 \pm 1,9\%$, a phagocytic number - $2,2 \pm 0,1\%$, an integral index - $1,004 \pm 0,053$.

NST-test of monocytes is defined by the number of diaphorase-positive cells - $9,07 \pm 0,08\%$, the average cytochemical coefficient of reaction - $0,123 \pm 0,01$, the aggregate index of luminescence by lysos in the monocyte cytoplasm - $295,3 \pm 8,1$, and the monocytes ability of adhesion and splitting comprising respectively $56,2 \pm 1,4$ and $35,07 \pm 0,8\%$. The expression level of receptors for Fe fragment of immunoglobulin and C3-fraction of the complement on the monocyte membrane comprised respectively $36,1 \pm 1,07$ and $45,4 \pm 1,01\%$. The phagocytic activity of neutrophils was determined with the help of the following values: a phagocytic index - $68,05 \pm 1,8\%$, a phagocytic number - $4,6 \pm 0,2\%$, an integral phagocytic index - $3,15 \pm 0,18\%$; NST-test of neutrophils: the number of diaphorase-positive cells - $80,55 \pm 1,55\%$, the average cytochemical coefficient of reaction - $0,949 \pm 0,038$.

The results received reveal that the majority of the people examined are characterised by the disfunction of the fermental systems of the monocytic and macrophagal cells and the development of the oxygen-dependent factors of the microbicidity of the phagocytic system. This is certain to be linked with a wide spreading of infections based on the malfunctioning of the mechanism of the bactericidal action.

The whole complex of typical malfunctions of the factors of the organism's non-specific protection and reduced effectiveness of the phagocytic system's functions are suggested by us to be designated as a transitional syndrome of regional immunal hyporesistance. It reflects polyetiological malfunctioning of the organism's protection systems and reduction of the reserve capabilities of the phagocytic part of the immunitas.

METOTREXATE IN POSTOPERATIVE TREATMENT IIN THE PATIENTS AFTER LAPAROSCOPIC TUBOTOMY

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Objective: *The aim of the study was to assess the efficiency of METOTREXATE in postoprative trientment in the patients after laparoscopic tubotomy.*

Methods: *Follow up of 66 patients, aged from 17 - 37, after laparoscopic tubotomy for progressive tubal pregnancy was done. The size of ovum was located in the distal part of the tube in 46 cases, in proximal - in 20. The size of ovum did. not exceed 4 cm in all cases. During of laparoscopy a longitudinal incision was made over the area of chorion localization, aquadissection was performd, the incision was left open. Transvaginal echography was done every second day in combination with Color Doppler (CD) in 66 patients followed up in postoperative period. Chorionic Gonadotropin (CG) concentration was evaluated.*

Results: *57 patients had normal regression of CG level, no pathology of the operated, lube was found by echography. Enlargement of the operated uterine tube calibre and color signals of trophoblastic blood flow in the site of tubotomy was found in 9 patients. CG indexes in blood remained stable or slightly decreased. Those patients were given metotrexate in the dose of 40 mg intramuscular once per day (6 out of 9 got 80 mg, 3 - 120 mg) under dynamic US-CD-CG-control every second day. All the patients which got metotrexate were noted to have a positive effect that allowed to avoid the removal of the uterine tube after tubotomy. There were no side effects in the use of cytostatic. Retrospective analysis of fertile function revealed the fact that during 4-5 years pregnancy occurred in all patients: uterine pregnancy in 8 cases, repeated ectopic pregnancy in one case (with the only uterine tube after tubotomy).*

Conclusions: *Thus the use of metotrexate allows to avoid the removal of the uterine tube after laparoscopic tubotomy in the patients with persistent tubal pregnancy.*

HISTOLOGICAL INVESTIGATION OF THE FETAL LIVER AFTER PROPYPHENAZONE ADMINISTRATION

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Objective: *Propyphenazone one of the pirazon derivatives is widely used analgesic and antipyretic medicine. The purpose of this study was to evaluate propyphenazone effect on fetal liver after administered to maternal animal model.*

Methods: *The experiment was conducted on Wistar breed rats. Propyphenazone was administered, in Tween 80 solution, using the stomach tube on days 8 to 14 of pregnancy at doses of 2.1 (P0), 21.0 (P1), 210.0 mg/kg body weight (P2). Two control groups were done: T - receiving Tween 80, C - untreated control. The females were sacrificed on day 21 of gestation and the fetuses were delivered by cesarean section. The fetuses were sectioned in-situ and the fetal livers were taken for histological examination. The slides were examined using light microscopy after four stains: hematoxylin and eosin, silver Gomorii, van Giesson and histochemical by periodic acid-Schiff (paS).*

Results: *There were not internal and external macroscopic malformations. There were a adaptive changes and ecchymosis especially in group P1. In the other groups observation changes were not so often.*

Conclusion: *Those results suggest that propyphenazone may provide adaptive changes in fetal liver after short time application during pregnancy.*

COMPARATIVE STUDY OF PROPYPHENAZONE AND PARACETAMOL ON FETAL DEVELOPMENT

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Objective: Paracetamol and propyphenazone are the active ingredients in over the counter oral antipyretic and analgesic drugs. The effects of paracetamol and propyphenazone, alone and in combination have been assessed in experimental animal model.

Methods: The tested substances were treated using stomach tube, in Tween 80 solution, one time per day, on day 8 to 14 of pregnancy in three doses: P0 – 3.5 mg/kg body weight, P1 – 35.0 mg/kg b.w., P2 – 350.0 mg/kg b.w. for paracetamol; R0 – 2.1 mg/kg b.w., R1 – 21.0 mg/kg b.w., R2 – 210.0 mg/kg b.w. for propyphenazone. There were three groups which received the combination of the drugs in constant proportion 5:3: P0R0, P1R1, P2R2. The two control groups were done: T – receiving Tween 80 solution, C – untreated control. The dames were sacrificed on day 21 of gestation and the number of implants, resorptions, and the live fetuses were counted. The weight of fetuses and placentas, the lengths of fetuses and their tails were checked. The fetuses were fixed either in Boin's fluid for study of viscera organs by Wilson's razor bland technique or in alcohol for study of the skeleton by alizarin red S staining. The Student's t-test and Mann-Whitney's test were used in statistical verification.

Results: There was a statistical ($p < 0.05$) difference in body weight in P1R1, body length in P2, R0, R1, P1R1, tail length in P2R2, placenta weight in P2R2 compared to control groups without any visceral and external macroscopic malformation.

Conclusion: The combination of paracetamol and propyphenazone provided embryotoxic effect as a paracetamol alone in the highest doses.

VITAMINIC AND ERYTHROPOIETINIC BACKGROUND OF PREGNANCY ANEMIA

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Objective: to make a comparison of vitamins (VIT) and erythropoietin (EPO) concentrations between pregnant with and without anemia. 18 anemic pregnant were included to the main group. The control group consisted of 20 pregnant without anemia. The serum immunoreactive EPO was measured using the ProCon EPO 24 set (St.- Petersburg, Russia). Serum levels of VIT: retinol (A); tocopherol (E); ascorbic acid (C); riboflavin (B_2); pyridoxin (B_6); α carotin (α Car.); S carotinoids (S Car.) were measured.

Results. The main group differed from the control with significantly lower levels of hemoglobin (Hb) and serum ferrum (Fe). ($p < 0.01$). It revealed that the EPO activity in anemic pregnant was significantly lower ($p < 0.05$) than in control group: $28,27 \pm 3,6$ and $40,87 \pm 3,8$ mU/ml correspondingly. The concentrations of VIT A, Car., S Car., B_2 , B_6 were significantly lower in the main group in comparison with the control: VIT A – $33,1 \pm 2,2$ and $51,3 \pm 2,9$ μ g/dl ($p < 0,001$); B_2 – $1,57 \pm 0,59$ and $4,11 \pm 0,83$ ng/ml ($p < 0,01$); B_6 – $3,77 \pm 0,42$ and $5,56 \pm 0,37$ μ g/ml ($p < 0,05$) correspondingly. A significant difference in levels of VIT E and C between two groups was lacking. ($p > 0,05$).

Conclusions. Thus, decreased serum concentrations of VIT :A, Car., S Car., B_2 , B_6 and Fe, indicate on metabolic changes in organism of anemic pregnant in comparison with control. Such changes are accompanied by the inhibition of erythropoiesis. This inhibition manifests itself in decreased Hb level and serum EPO activity.

ANEMIA IN PREGNANTS WITH RECURRENT MISCARRIAGE

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Objective: to make a comparison of pregnancy course and terminations between pregnant with and without anemia. Level of hemoglobin lower than 110 g/l was a criterion of anemia. Retrospective analysis of archives files of 152 pregnant with recurrent miscarriage included character of clinic & somatic status, menstrual function, reproductive history, pregnancy course & termination, state of newborns. 80 anemic pregnant treated with iron & vitamins formed the main group. The control group consisted of 72 pregnant without anemia.

Results. The main group differed from the control with age ($p < 0,05$) : $32,3 \pm 0,6$ and $30,5 \pm 0,6$ years; number of pregnancies ($p < 0,05$): $5,3 \pm 0,2$ and $4,6 \pm 0,2$; menstrual days ($p < 0,01$): $5,3 \pm 0,2$ and $4,7 \pm 0,1$ correspondingly. It revealed that anemic pregnant twice more often had cardiovascular diseases, twice rare- hyperandrogenia. Placental pathology (10 & 4,4%), bleeding (9,6 & 0%), manual examination of postnatal uterus (15 & 3,7%) and premature labors twice more frequent were observed in the main group than in the control one. Apgar score was significantly lower ($p < 0,01$) in newborns from the anemic mothers: $7,0 \pm 0,2$ - $8,1 \pm 0,1$ and $7,6 \pm 0,1$ - $8,6 \pm 0,1$).

Conclusions: Anemia in spite of its treatment has influence on the pregnancy course and its termination. Probably, it is necessary to search new approaches for examination and treatment of anemic pregnant.

N-3 POLYUNSATURATED FATTY ACIDS IN HIGH RISK PREGNANCY AND LIPID SPECTRUM CHANGES

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Objective: to study the changes in lipid levels in high-risk pregnant supplemented with n-3 polyunsaturated fatty acids (PUFA).

Design: Prospective, randomised, placebo-controlled trial. Picasol (2.7 g of n-3 PUFA/daily, N=31 (Denmark)) or placebo (olive oil, N=29) were administrated during II-III trimesters of pregnancy. Before administration of n-3 PUFA/placebo and in the end of III trimester serum concentration of the following parameters of lipid spectrum: total triglycerids, total cholesterol, cholesterol of high (HDL), low (LDL) and very low (VLDL) density lipoproteins had been measured. Clinical part of the study was partially performed in the frameworks of the Fish-oil Trial in Pregnancy (FOTIP).

Results: There were no significant differences in lipids level between groups in baseline measurement. In the end of III trimester we found significant differences between two groups in triglycerids and VLDL-cholesterol concentrations ($1.7 \pm 0,4$ mmol/L and 0.8 ± 0.2 mmol/L in Picasol group vs 2.4 ± 0.5 mmol/L and 1.1 ± 0.2 mmol/L in placebo group, respectively). We did not find significant differences in blood pressure indices and hypertensive disorders incidence between groups. In the same time, frequency of signs of placental insufficiency in placebo group was significantly higher, than in Picasol group.

Conclusions: We suggest that observed changes in triglycerids and VLDL-cholesterol concentrations in prophylactic administration of n-3 PUFA can be conditioned by preventive effect on endothelial dysfunction and by possible changes in expression of angiogenic growth factors in placental tissues. Further investigations of placental growth factors will allow to evaluate their role in the genesis of endothelial dysfunction and possible mechanisms of its correction.

CENTRAL AND PERIPHERAL HEMODYNAMICS AT PREGNANT WOMEN WITH IDD

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Objective: To study the central and peripheral hemodynamics at patients with insulin-dependent diabetes (IDD) at III trimester of pregnancy.

Method: Central and peripheral hemodynamics was tested by impedance plethysmographic method of rheography by Cubichek at 52 patients with IDD and microvascular complications (37 pregnant and 15 nonpregnant women) and 100 healthy women (40 pregnant and 60 nonpregnant).

Results: Women with normal pregnancy have follow parameters of heart works - stroke volume (SV) and cardiac output (CO) - were higher (4%; 9%), than SV and CO of healthy nonpregnant women ($p < 0,05$). Vascular resistance (VR) and blood pressure (BP) in pregnant were lower (8%; 21%) ($p < 0,001$). But bloodstream of lower extremities in pregnant women (rheographic index (RI) and intensity of bloodstream of lower extremities (DV100) was decies (on 20%; 25 %), and data of reflecting tonus and vascular resistance on the contrary were increase ($p < 0,05$). The hemodynamics status in pregnant with IDD was worse than in healthy pregnant: SV and CO were lower (on 17%; 33,5%) but VR and BP were higher (on 29,5; 2,5%), than corresponding data of nonpregnant women with IDD ($p < 0,001$). Bloodstream of lower extremities in pregnant women with diabetes, rats on level of nonpregnant women despite of decreasing bloodstream big vassals and of increasing their tonus. It reasons of decreasing functional reserves middle vassals and capillaries at IDD.

Conclusion: Deterioration of data central and peripheral hemodynamics indicate disturbance adaptation to pregnancy (in III trimester) in women with IDD in comparison with hemodynamics change in healthy pregnant women.

CONDITION OF PLATELET PART OF HEMOSTASIS IN DIABETIC MOTHERS AND THEIR NEONATES

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Objective: To evaluate clinical condition and platelet hemostasis in diabetic mothers and their neonates.

Methods: Aggregation of platelets in whole blood were assessed in women with I type diabetes mellitus ($n=13$), II type diabetes mellitus ($n=2$) and gestational diabetes ($n=1$) and their neonates in comparison with their clinical condition.

Results: Platelet aggregation in whole blood depends on severity of diabetes and its compensation during pregnancy. It decreases in severe decompensated I type diabetes. In neonates of such mothers aggregation intensity is decreased in 3 times. In the case of compensated diabetes, aggregation activity is normal. In neonates with diabetic fetopathy amplitude of aggregation is 2,5-fold decreased, in comparison with healthy neonates.

Conclusion: Diabetes mellitus worsens postnatal adaptation of neonates and causes disturbances of platelet aggregation.

THE POSSIBILITIES OF IMPROVEMENT OF POST-PARTUM CONTRACEPTION

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Objective: Our purpose was to improve the system of post-partum contraception in agricultural regions.

Methods: Individual work on choice of a post-partum contraceptive method had been conducted during the pregnancy and after delivery among 250 women, residents of typical agricultural region of Central Russia.

Results: After delivery 7,5% of patients used surgical sterilization, 20,8% - intrauterine devices (IUD); 2,5% - hormone contraceptives, 54% - other contraceptive methods and 9,2% of parturient reject any contraceptives.

Surgical sterilization was carried out on 1-4 days after vaginal delivery via mini laparotomy under intravenous anesthesia without any immediate and remote complications. Insertion of IUD's was performed on 5-7 days after delivery in absence of clinical, bacteriological, ultrasound and histological (in placenta) features of inflammatory pelvic diseases. Medical complications during 1 year after inserting IUD were registered in 3,6% of cases (2,4% - inflammatory pelvic processes; 1,2% - menometrorragia). Progestagens (pills and injectables) were used as hormone contraceptives. Patients began its use in 1 month after delivery. The related medical complications were metrorragia with the rate 2,9%. Developed system of post-partum contraception resulted in 4,5% reducing of frequency of unplanned pregnancy during the 1st year after delivery.

Conclusion: The developed system of post-partum contraception permits to reduce the frequency of unplanned pregnancy during the 1st year after delivery. However, the significant quantity of women, residents of agricultural regions are not ready yet to use modern contraceptive technologies (especially sterilization and hormones) in post-partum period and adopted other contraceptive measures or use no contraception at all, what led to high level of artificial abortions.

EFFECT OF INTRAOPERATIONAL REINFUSION OF BLOOD ON LACTATIONAL FUNCTION OF PARTURIENTS AFTER OPERATION OF CESAREAN SECTION

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Objective: To study the effect of intraoperational reinfusion on the onset and duration of lactation in parturient after an operation of cesarean section.

Methods: The main group included 15 patients who underwent intraoperational reinfusion of blood. Blood loss was 1109.0 +/- 129.9 ml. The controls consisted of 10 patients after cesarean section, blood loss of 700.0 +/- 106.0 ml, which was filled up with physiological, and plasma substitutional solutions of 880.0 +/- 250.0 ml. The methods of determination the quantity of milk and prolactin per day were used for the assessment of lactational function of parturient of both groups in addition to the routine ones.

Results: Lactation of parturient after abdominal delivery is characterized by late and prolonged onset. In the use of plasma substitutional preparations we noted a decrease of general protein by 20%, meanwhile after blood reinfusion it decreased by 10%. Anemia was found in 72% and 15%, respectively. There were no reliable differences in prolactin basal levels. Hypogalactia was detected in comparison it was 527 +/- 44 ml. The duration of breast-feeding was 1.3 +/- 0.5 months, in the group after intraoperational reinfusion it was 4.7 +/- 1.2 months.

Conclusion: Thus, we revealed a positive effect of intraoperational blood reinfusion in the quantity of breast milk and duration of lactation.

PERINATAL ASPECTS OF CESAREAN SECTION

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Objective: To evaluate influence of cesarean section on perinatal outcome.

Methods: 112 pregnant were included in the study. 85 among them were delivered by cesarean section and 27 - by vaginal labor. Ultrasound examination, Doppler and cardiotocographia of fetus, hemostasiologic analyses were fulfilled in both groups of patients. Newborns' condition were statistically analyzed soon after birth and in early neonatal period.

Results: During last decade strong correlation is seen between cesarean section rate and perinatal mortality. So, an increase of abdominal delivery rate in the Center from 10% in 1976 to 40,3% in 1996 allowed to decrease perinatal mortality from 23 to 8. Stillborn index decreased from 7,1 to 4, and percent of intranatal death decreased practically in two times. Especially, the decrease of stillborn at term should be stressed, index that decreased from 1,7 in 1986 to 0,5 in 1996, more then in 3 times, but among preterm babies - from 72,7 to 59,0. Early neonatal mortality decreased in 2,5 times (from 10,8 to 4,0), and among term newborns decreased from 1,3 to 1,0, but in preterm ones - from 100,4 to 48,6.

Conclusions: Cesarean section carries the intranatal risk factor for the fetus and newborn. Early neonatal period is more favorable in newborns delivered by cesarean section during labor. In the causative factors of intranatal death intracranial labor trauma is absent.

EFFECT OF INTRAOPERATIONAL REINFUSION OF BLOOD ON LACTATIONAL FUNCTION OF PARTURIENTS AFTER AN OPERATION OF CESAREAN SECTION

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Results: Lactation of parturients after abdominal delivery is characterized by late and prolonged onset. In the use of plasma substitutional preparations we noted a decrease of general protein by 20%, meanwhile after blood reinfusion it decreased by 10%. Anemia was found in 72% and 15%, respectively. There were no reliable differences in prolactin basal levels. Hypogalactia was detected in 78% of the controls. Mean daily milk quantity (7days) in that group was 250 ± 40 ml, in the group of comparison it was 527 ± 44 ml. The duration of breast feeding was 1.3 ± 0.5 months, in the group after intraoperational reinfusion it was 4.7 ± 1.2 months.

Conclusions: Thus, we revealed a positive effect of intraoperational blood reinfusion on the quantity of breast milk and duration of lactation.

ROLE OF CLINICALLY CONTRACTED PELVIS IN THE STRUCTURE OF INDICATIONS FOR CAESAREAN SECTION

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Pregnant women with the contracted pelvis belong to the «high risk» group of perinatal pathology. Anatomically and clinically contracted pelvis is one of the frequent indications for cesarean section.

With an eye to determinate the role of clinically contracted pelvis in the structure of indications for caesarian section, annual reports of the Unit of labor management in women with high risk of the Scientific Center for obstetrics, gynecology and perinatology of the Russian academy of medical sciences were analyzed for a period 1951 - 1998. It was showed that in 50s in the structure of indications for cesarean section the clinically contracted pelvis occupied the 1st place - 38,5%. In 60s a number of cesarean section, performed in the connection with clinically contracted pelvis decreased to 13,9%, in 70-e - to 8,8%. This is concerned to the improvement of diagnostics of contracted pelvis and refusal of «test» contracted pelvis delivery by obstetrcians. In after years, due to penetration to the clinic of labor outcome prediction methods based on the digital scanning x-ray unit, the frequency of cesarean section for clinically contracted pelvis continued to decrease, and in 80s was 4,3%, in 90s - 2,1%. Therefore, improvement of contracted pelvis diagnostics, penetration of outcome of labor prediction methods and rational labor management in the patients with above pathology allow to reduce a number of cesarean sections, performed for clinically contracted pelvis.

EXPEDIENCY OF PROPHYLACTIC USE OF FROZEN PLASMA IN PREGNANT WITH DISADAPTATION OF HEMOSTASE SYSTEM DURING CAESAREAN SECTION

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Objective: *To evaluate necessity of frozen plasma use for prophylaxy of bleeding in patients with disadaptation of hemostase system during cesarean section.*

Methods: *I group consisted of 21 pregnant with disadaptation of hemostase system without plasmotransfusion and the II one - with prophylactic use of plasma during cesarean section. All patients were matched by age, indications for abdominal delivery. Volume of bloodloss was measured by protein levels in serum, Nelson's formula and it was approximately equal to $923,9 \pm 83,1$ ml. Severe bleeding were absent in both groups.*

Results: *On the 1-st postoperative day an increase of hemostatic blood potential was noted in both groups (by 3,2 times and 3,5 times in I and II group, accordingly). On the III-V postoperative day hemostatic blood potential slowly decreased and returned to normal values on the VIIth postoperative day.*

Conclusion: *prophylactic use of frozen plasma in pregnant with disadaptation of hemostase system during cesarean section is not necessary.*

HORMONAL ANALYSIS OF THE MENSTRUAL CYCLE AMONG INFERTILE WOMEN WITH OVARIAN ENDOMETRIOSIS

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Aim: The main aim of the study was hormonal analysis of the menstrual cycle among infertile women with endometriosis.

Method: 60 infertile women with ovarian endometriosis (single implants and endometriomas) were analyzed. We evaluated serum levels of 17- β Estradiol and Progesteron measured in 21 day of the menstrual cycle. Clinical stage of endometriosis were estimated based on American Fertility Society Classification (AFS).

Results: 1. We observed that significantly more patients presented advanced endometriosis - stage III and IV (according to AFS), respectively 15 and 27 women. Minimal and mild endometriosis were diagnosed in 18 women - stage I and stage II, respectively 11 and 7 patients. 2. Mean level of 17- β Estradiol among all patients was higher than normal ($257,6 \pm 124,0$ pg/ml) but women with more advanced endometriosis (stage III and IV) presented statistically higher level of this hormone. 3. The mean level of Progesterone was low ($3,26 \pm 1,94$ ng/ml). We did not observed any difference in serum concentration of this hormone between compared groups.

Conclusion: The mean serum level of 17- β Estradiol was significantly higher among patient with more advanced endometriosis.

THE APPLICATION OF ARABIN PESSAR IN THE TREATMENT AND PROPHYLACTIC OF INCOMPETENT OS

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Isthmocervical insufficiency is one of the most important problems in modern perinatology because in many patients it leads to abortion or premature labor.

Objective: Recently many surgical procedures like cerclages of different types were introduced into treatment and prophylactic of incompetent os. Arabin pessar seems to be the alternate nonsurgical method. Study design: The aim of our researches is to judge the effects of Arabin pessar insertion in treatment of isthmocervical insufficiency. The method has been applying in our Department since September 1998. The studied material involved 20 patients, mostly multipara, with indications for cordage. Two of patients were carrying twins. Pessars were inserted in the 2nd trimester of pregnancy and evacuated 2 weeks before estimated term of delivery. Pessars were inserted only if vaginal biocenosis estimated on the base of smear and bacteriological culture were correct. Indications for pessar insertion were judged on the base of interview, internal examination and transvaginal USG where we put special attention to the cervix length and width, length and width of cervix canal and also to the internal os shape and dilatation (tunnelling). USG parameters were estimated at rest, at cough trial and during slight pressure on the uterine fundus.

Results: At the present time some of patients from the studied group delivered at term healthy newborns with no signs of infection. The course of pregnancy in other patients seems to be uncomplicated. In 1 woman we had to evacuate pessar in 33 week of pregnancy due to reoccurring contractions which did not respond to tocolysis.

Conclusion: Arabin pessar insertion seems to be effective method in treatment and prophylactic of isthmocervical insufficiency. The method is relatively less invasive, cheap and can be applied in out patient clinic. There is no need of hospitalization under condition of frequent medical control with the special attention put on symptoms of vaginal infections.

CHARACTERIZATION OF UTERINE PAPILLARY SEROUS CARCINOMA: CLINICAL AND MORPHOLOGICAL ASPECTS

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Objective: Endometrial cancer are shown is nonequallical by histotypical structure, differentiated adenocarcinoma were observed in most of ones. The aim of our data was to investigate one of the rarest form of endometrial cancer such as uterine papillary serous carcinoma (UPSC).

Methods: 163 women with endometrial cancer were investigated and treated by surgery, X-ray and polychemotherapy in City Cancer Hospital at 1997.

Results: UPSC was detected in 19 (11,7%) cases, from whom 6 patients were obese, 3 – with diabetes mellitus and 4 – with arterial hypertension, 4 were myoma of uteri and 5 patients were sterility. Metastases in iliac lymphonodes were found in 2 cases, in ovary - in 1 case and in gastrocolic omentum – in 1 case, respectively. Morphological structure of UPSC is similar of ovarian serous cystadenocarcinoma. Majority of features were revealed deep invasion more than 1 cm and there are psammous bodies in 5 (26,3%) cases.

Conclusion: UPSC is a highly aggressive type of endometrial cancer. Concerning results of our investigations we may noted that plan of complex treatment of UPSC must include not only surgical and X-ray therapy but chemotherapy as well.

PERMEABILITY OF ERYTHROCYTE MEMBRANES AND SORPTION ABILITIES OF ERYTHROCYTES IN NEONATES, BORN IN ASPHYXIA

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Objective: To study features of a permeability of erythrocyte membranes and sorption ability of erythrocytes in neonates, born in asphyxia.

Methods: 13 mature neonates, born in asphyxia, were investigated during the first 4-12 hours of life. A group of comparison consisted of 12 healthy mature neonates. Permeability of erythrocyte membranes (PEM) was assessed by means of estimation of percent of hemolyzed erythrocytes in 7 solutions with different ureal dilution (V.N. Kolmakov, 1982). Sorption ability (SAE) was investigated by the method of adsorption of methylen blue by erythrocytes (A.A. Togaybayev, 1988).

Results: PEM in healthy mature neonates – $10.97 \pm 2.6\%$, SAE – $54.3 \pm 2.8\%$. Three types of PEM in neonates, born in asphyxia were revealed. First – normal values of PEM ($13.2 \pm 1.2\%$, $p > 0.05$) in mild degree of disturbance of a cerebral circulation. Second – high parameters of PEM ($32.5 \pm 6.7\%$, $p = 0.02$) in moderate degree of disturbance of cerebral circulation. Third – normal parameters of PEM ($13.5 \pm 2.5\%$, $p > 0.05$) at serious disturbance of cerebral circulation. The third variant could be seen in combination of chronic and acute hypoxia and characterized with steady perinatal pathology of CNS. SAE in neonates, born in asphyxia – $46.9 \pm 3.1\%$, $p > 0.05$.

Conclusion: Assessment of PEM in neonates, born in asphyxia is a diagnostic criterion of seriousness of intrauterine fetal distress.

REVEALING COMBINED PATHOLOGY OF GENITALS, MAMMARY AND THYROID GLANDS WITH SONOGRAPHIC SCREENING

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Objective. To study revelation rate of a combined pathology of genitals, thyroid and mammary glands among the conditionally healthy women with sonographic screening.

Methods. Sonographic screening of 1674 women aged 17 - 81 was performed. The mean age was 39 years. The examination was made with MEDISON SA-1500/SA-4800 using 3,5 and 7,5 MHz transducers and 6,5 MHz transvaginal transducer.

Results. The pathology was revealed in 968 women that have made 57,8% from number surveyed. Among them, the combined pathology was found out much more often than isolated. So, from 776 revealed cases of gynecologic pathology, isolated pathology was only in 263 (33,9%), from 353 pathologic findings in mammary glands – in 91 (25,4%), from 397 cases of thyroid gland pathology – in 141 (37,3%). In total, from 1526 pathological conditions only 495 had no combinations with other pathologies, that has made 32,4%. Another 1031 were diagnosed in 473 patients. Most frequent components of combinations were endometriosis (88,4%), endometrial hyperplasia (89,7%), sclerocystic degeneration of ovaries (85,7%), lactocele (90,3%), mammary fibrocystic disease (73,2%), and thyroiditis (80,0%).

Conclusions. Performing a sonographic screening it is necessary to carry out a complex examination, and when one disease is revealed it is advisable to seek an associated pathology for the adequate determination of the further treatment tactics.

MECHANISM OF FERTILIZATION AFTER INTRACYTOPLASMIC SPERM INJECTION

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Recently a substantial progress in understanding of the mechanism of fertilization during ICSI has been made. The following sequence of events leading to the zygote formation has been identified.

Immobilization of the spermatozoon with a needle induces damage of the sperm plasma membrane so that the sperm nucleus decondensing factor (SNDF) of the oocyte can reach and decondense the sperm nucleus. However, polyvinylpyrrolidone (PVP), which is present in the drop with the sperm, stabilizes the sperm plasma membrane or changes the chemical properties of other molecules in its vicinity thereby preventing sperm and egg interaction. As the PVP becomes diluted following sperm placement into ooplasm, SNDF access the sperm chromatin inducing initial, activation independent, sperm nucleus swelling that ruptures the sperm plasma membrane. This enables a sperm-associated oocyte activating factor (SAOAF), which remains non-identified, to leave spermatozoon and to induce oocyte activation through mobilization of intracellular calcium for oscillations. SAOAF release take place within 30 minutes after injection. Between 2 and 3 hrs after injection resumption of meiosis can be observed at cytogenetic level as an early anaphase of the second meiotic division. Two to three hours later the late anaphase stage is reached, and sperm and oocyte chromosome become indistinguishable from each other. A second polar body is being extruded at this time. Shortly after the male and female chromatin undergo further decondensation to develop into a male and female pronucleus.

Investigation of mechanism of fertilization after ICSI has also contributed to understanding the mechanism of fertilization in general.

MOTHER'S MORTALITY FROM GESTOSIS IN THE TERRITORY OF KRASNOYARSK REGION FOR 10 YEARS (1989-1999)

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Purpose: To carry out an expertize of prior medical documents died from gestosis to reveal modern clinical aspect of gestosis.

Methods: Retrospective research.

Materials: An analyse of 78 cases of mother's mortality has been presevered for 10 years in Krasnoyarsk territory.

Results: Gestosis prevail in the structure of mother's mortality in this region – 28,2%. For last 5 years the rate of gestosis has been diagnosed at 43,3% dead women in labor, preexlampsia – 35,4%. In 85,4% of cases dead women were delivered by ceserean section at 28-36 weers of gestation. Partial placentae outlayer of normally located placenta and disseminated intravascular coagulation syndrom were found at 32% of sick. Belated delivery and organising deficit serve a negative thing.

Conclusions: The use of algorithm to treat late gestosis and timely delivery could reduce mother's mortality in the region.

MOTHERS MORTALITY IN THE TERRITORY OF KRASNOYARSK REGION FOR THE PERIOD OF 1986-1998

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Purpose: To hold an expert analyse of mother's mortality for last 10 years and to define the way to reduce it.

Methods: Clinico-statistics analyse of 253 medical cards.

Results: The rate of mother's mortality in the region is two times more Russian's rate. Late gestosis (83-32,8%) predominate in the structure of mother's mortality, then sepsis comes (45-18,8%), extragenital pathology (32-12,6%) and obstetrics bleeding (26-11,4%). The number of death from gestosis and sepsis increased twice, bleeding death reduced in 20%. Clinical analyse of medical cards died from gestosis points to its mutual character and apathetic symptoms but a real gestosis heaviness was not assessed, then came a long-term treatment and more than often a wrong choice of period and methods of outcome. Haft of sick patients were not recommended to pregnancy 80% of mortality were patients suffered from sepsis after criminal interference. Their death was inevitable, patients were delivered to hospitals in an extremely grave condition – in a stage of infection spreading or in a phase of bacteria shock to reduce, mother's mortality.

Conclusions: Early diagnostic is necessary to reveal and to treat women with extragenital pathology. Besides one should perfect assistance in family planning: scrinning programm outcome to reveal pregnancy complications and to correct them timely

NON-MEDICAMENTAL TREATMENT OF INFLAMMATORY COMPLICATIONS CAUSED BY INTRAUTERINE DEVICE

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Objective: Intrauterine device (IUD) is the most popular method of female contraception. The aim of this study is the quest of new treatment modality, contrary to routine antibacterial method.

Methods: We treated 11 women of 26 to 47 years of age having nonacute endometritis with IUD. After removal of IUD and endometrium by curettage plasmapheresis (PA) was carried out twice and then followed by endovascular laser blood irradiation (ELBI) N7-10.

Results: The recovery begins rapidly with normalization of general and gynaecological status, body temperature, menstrual function, elimination of pelvic pain. Recurrency of the disease was not observed during 1-1,5 years.

Conclusions: Positive results of PA and ELBI methods in treatment of pelvic inflammatory complications and absence of contraindications and side-effects typical for antibacterial therapy proved to be attractive.

METHODS OF LIMITATION OF REPRODUCTIVE FUNCTION IN MODERN CONDITIONS IN RUSSIA

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Objective: Today the most important demand for the family planning methods is their accessibility, safety, harmlessness and guaranty of reproductive function restoration in necessary time.

Methods: In 1998 we conducted 90 women who had contraceptive experience during 10 years and more. Data were counted with Statistic SPA-Analitic Program.

Results: The investigation confirmed that the most popular family planning methods are well-known among Russian women and are in retail sale. Our respondents have adequate individual evaluation of modern contraception methods. The most using methods of contraception among respondents are barrier methods and intrauterine devices. Most of respondents correctly evaluates negative consequences of abortions but 73% of respondents are morally ready to do abortion. In real life 87% of respondents had at least 1 abortion in spite of its negative consequences, 90% of them said about post-abortion's psycho-emotional shock.

Conclusions: To our mind for the decreasing of large scales of artificial abortions it's necessary first of all: to change individual psychological attitudes to abortions in interrelation with society mentality changing.

PREGNANCY AND NEPHROGENIC HYPERTENSION SYNDROME

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Objective: *The necessity to study nephrogenic in pregnancy is mandated by a continuing increase of number of patients affected by that disorder.*

Methods: *153 pregnant women with chronic pyelonephritis were examined. Methods of examination were: generally accepted clinical methods, biochemical, echographia, radioisotopic, cardiotocographia, dopplerometria.*

Results: *Hypertensive syndrome was found out in 32 (20,9 %) patients: 30 with parenchymatous form & 2 - with vasorenal form. The abortion for medical duration in the Ist trimester of pregnancy was done in 2 patients with vasorenal hypertension (arterial pressure 180/120 - 240/150 mm Hg) & in the IIRD trimester in 6 patients with parenchymatous hypertension of pregnancy tie to high hypertension & the progression of chronic renal insufficiency. Another 24 pregnant women continued 32-38 weeks with different degree of gravity & complications: with negatively influence on the condition of fetal (retardation 62,5 %, hypoxia 58,3 %) & women (the violation of nitric excretory function 83,3 %, the increase of chronic renal insufficiency 12,5 %). Perinatal mortality was 4,2 %.*

Conclusion: *The prolongation of pregnancy with nephrogenic hypertension must be decided individual.*

MODERN MANAGEMENT OF PREMATURE LABOR

R.U. Erkkola

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Objective: *Preterm labor is the leading cause of perinatal mortality and morbidity in the developed world. The purpose of this report is to analyze the current knowledge to prevent the preterm delivery and its practical management.*

Methods: *Report is based on literature, and on research reports from Finland.*

Results: *In Finland, the births before 37 completed weeks account for 5.4% of all births, and babies with a birth weight below 2500 g 4.4% and below 1500 g about 1.0% of all newborns. The main predictive factors of preterm birth are multiple pregnancy, previous preterm birth, and second trimester bleeding. Clinically, the most promising methods for prediction may be vaginal ultrasound and presence of fibronectine in cervical secretions. Home monitoring of uterine contractions may not be worthwhile. Cervico-vaginal infection may play substantial role in the development of pre-term labor with or without pre-labor rupture of membranes. The role of antibiotics in the management is intensively researched. Tocolysis has been attempted with ethanol, beta-agonists, magnesium, prostaglandin synthetase inhibitors, calcium channel blockers, glyceryl trinitrate, oxytocin antagonist, and inhibitors of inducible form of cyclooxygenase. So far, no real progress has been achieved in the prevention of preterm delivery. Instead, remarkable advances have been achieved in the care of very low birth weight and low birth weight babies.*

Conclusion: *Therefore the main goals are: to postpone the delivery in order to transfer the mother to a center with neonatal intensive care unit, to gain time for corticosteroid treatment, and to minimize the neonatal consequences of preterm labor.*

HOW MANY CESAREANS ARE JUSTIFIED?

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Objective: Rising rates of cesarean sections (C.S.) in many countries have been of a wide concern. The objective of this report is to analyze the current knowledge about the advantages and disadvantages of abdominal delivery.

Study design: Report is based on recent literature, preferably on meta-analyses of prospective trials. It is also based on some own data from Finland.

Results: In Sweden, 1 maternal death/105 vaginal deliveries occur, while at acute C.S. the risk is 11-fold. In Cape Town, the risk of maternal death associated to C.S. is 5-fold, when primarily critically ill mothers are excluded. Further, the morbidity of the mother is greatly increased: hemorrhages, infections, deep vein thromboses, and urinary tract injuries are early complications. Late complications include bladder and bowel adhesions, ventral hernia, uterine rupture in next pregnancy, placenta accreta, and high risk for another C.S.

Maternal illness may be an indication for C.S. Previous uterine scar is felt indicated for C.S. in many centers across the world. Further, the maternal anxiety or fear is increasingly rising as an indication.

Concerning the newborn, elective C.S. may increase the risk of respiratory distress syndrome 7-fold, and the risk of meconium aspiration many-fold. It has been claimed, that by increasing C.S. rate, the perinatal mortality will decrease, yet there are centers that are able to show, that perinatal mortality does not decrease once the C.S. rate is around 6 to 10%. The main fetal indications for C.S. are dystocia, fetal distress and breech presentation. There has been recommendations to deliver all fetuses with estimated weight <2500 g or >4000 g, but this alone would lead to about 20% C.S. rate. In a recent meta-analysis on elective versus selective C.S. in pregnancies <37 weeks the data was too small to conclude whether the benefit for the newborn outweighs the maternal morbidity. Likewise, expectant management in postdate pregnancies is found to decrease the C.S. rate without fetal risks.

Conclusions: Evidence based medicine does not support C.S. rates higher than 10-15%

MAGNETIC RESONANCE IMAGING IN PROFOUND DIAGNOSING OF THE CANCER OF UTERINE CERVIX

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Objective: The aim of the study was to determine the diagnostic value of MRI in cervical cancer patients.

Materials and methods: Magnetic resonance tomography was carried out in 52 patients with cervical cancer. MRI was performed at 1,5 T using the following sequences: T1- weighted and T2- weighted TSE. The diagnoses were confirmed by histological examination of tumor specimens in all cases.

Results: The signals from all tumors were of high intensity at T2W1 even in small tumors. The depth of invasion was estimated on the depth of germinal layer of the cervix. In 5 observations it was considered as deep, that correlated with histological examinations. The invasion of adjacent organs was revealed at presence of obliteration of a signal of high intensity from the fat between tumor and bladder or rectum at T1 W1 in two patients. Histologically confirmed involvement of lymph nodes was revealed in 6 patients.

Conclusion: Magnetic resonance tomography helps to specify the degree of dissemination of pathologic process, the stage of the disease and to choose the treatment modalities.

THE ROLE OF CHLAMYDIAL INFECTION IN PERINATAL PATHOLOGY

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Objective: To evaluate the frequency, the peculiarities of the course of early neonatal period and the results of the treatment newborn infants infected with *Chlamydia trachomatis*.

Methods: 246 newborn infants were examined. The isolation of *Chlamydia trachomatis* in swabs from the conjunctiva, pharynx, vulva of the neonates verified diagnosis of chlamydial infection. Polymerase-chain reaction as well as a cultural method was used. Antichlamydial antibodies in the blood of mothers and infants were assessed with immunofluorescent method.

Results: It was shown that newborns with chlamydial infection are formed 32 % among the newborns with perinatal pathology. The following clinical forms of the intrauterine chlamydial infection were determined: 1) generalized infection with heavy affection of the CNS, lungs, heart, gastrointestinal tract, liver and other organs; 2) meningoencephalitis; 3) intrauterine pneumonia; 4) respiratory distress syndrome (in premature infants); 5) gastroenteropathy; 6) conjunctivitis. We have made a comparative estimation of efficiency of azythromycin and erythromycin in treatment of chlamydial infection in newborn infants.

Conclusion: The results show not only high clinical effectiveness of azythromycin, lack of adverse reactions, but also about its safety.

SPONTANEOUS ABORTUS CAUSED BY ACTIVATION OF CYTOMEGALOVIRAL INFECTION: THERAPEUTIC APPROACHES AND ISSUES

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Objective. Immunotherapy of spontaneous abortions in women with long-term reactivation of cytomegalovirus infection - CMVI (positive serum anti-CMV IgM in repeated ELISA during more than one year).

Methods. 62 women (aged 20-38 years) with anamnesis of spontaneous abortions (at least two) associated with CMVI reactivation had lymphopenia, increasing of big granulocytes count and circulating immune complexes concentrations, reducing of B-cell, T-cell (mainly because of Ts-subpopulation) amounts and phagocytosis activity in comparison with 646 healthy subjects ($p < 0.010$). Patients, in dependence of clinical features, were treated by different combinations of immunomodulators (T-activin, thymogen, vilosen, sodium nucleonatis), enterosorbents and stimulating procedures (vitamins) for 6-12 months. The criteria for pregnancy planning were: 1. obvious tendency to immune parameters normalization; 2. anti-CMV IgM elimination from patient's serum.

Results. 60 women became pregnant and 3 of them had spontaneous abortions again. Other 57 women had significantly reduced incidences of gestational complications such as threatened abortions ($p = 0.001$), fetal hypoxia ($p < 0.001$) and gestosis ($p < 0.001$) in comparison with untreated women. There were no cases of intrauterine complications, antenatal death and inborn abnormalities. All of 57 women delivered alive babies on 38-40 weeks of gestation with Apgar scores 8-9.

Conclusion. Described approaches of investigation and therapy were enough to correct disturbances in reproductive function (95% of cases) associated with cytomegaloviral infection reactivation.

THE CLINICAL EARLY OUTCOMES OF TREATMENT OF PREMATURE BABIES

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The development of technology to care of very low birth-weight infants is the cause of survival of these patients. In intensive care the mortality of premature infants unit with birth weight <1000 was decreased from 64% to 40% and with birth weight 1001-1500 g was decreased from 40% to 27%. But it is known, that decrease of mortality in some group of this patients creates other serious problem - the quality of future life. The purpose of this study was to determine how low grade of prematurity would influence on rate intraventricular haemorrhage (IVH), retinopathy of premature (ROP) and bronchopulmonary dysplasia (BPD). In this study were including 120 survival patients of intensive care unit with birth weights <1500 g, who were treated in 1998 year. The most serious clinical problems were ICG, BPD and ROP. Diagnosis of ICG was based on the dates of head ultrasound scan. Findings described according to Papile's grading criteria. Diagnosis of BPD was performed according with criteria described by Northway. Diagnosis of ROP was based on dates of indirect ophthalmoscopy examination. Grades of ROP were defined according to international classification. The patients were allocated in two groups: group A (n=32) with birth weight <1000 g (mean 867 g; range 620-1000), gestation age <28 weeks (mean 25,4; range 22-28) and group B (n=88) with birth weight 1001-1500 g (mean 1229; range 1030-1500), gestation age 29-32 weeks (mean 29; range 28-32). Hypotheses of difference for nominal data were tested with the χ^2 test. There were statistically significant between patients of group A and B in the incidence of BPD, severe ICG and ROP. In group A 8 patients (25%) had ICG 3-4 grades and 4 patients (4%) of group B had ICG 3-4 grade ($p<0,05$). ICG 2 grade had 3 patients (9%) and 10 patients (11%) in groups A and B respectively. Group A contain of: 8 patients (25%) with ICG 1 grades and group B - 26 patients (29%). In group A 7 babies (21%) suffered from BPD 2-3 and nobody in group B. There were 7 cases (21%) of the severe ROP (3-4 grade) in group A only. These results suggest that a low gestational age associated with high incidence of severe perinatal injury central nervous and respiratory systems. Further development technology of care of premature newborn babies should reduce the incidence of cerebral and lung lesions and thus guarantee a better quality of survival.

CARDIOINTERVALOGRAM IN HEALTHY FULL-TERM NEWBORN BABIES AT THE FIRST 24 HOURS OF LIFE

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Objective. To reveal a specialties of cardiointervalogram (CIG) in healthy full-term newborn babies at the first 24 hours of life.

Methods. 31 healthy full-term newborn babies were studied (mean birth weight $3,558 \pm 420,6$ gr, mean body height $50,5 \pm 1,7$ cm). Within the first 24 hours of life a continuous recording of cardiointervalogram was being carried out. On processing the readings 3 types of CIG were determined (Types I, II, III). They were different not only visually but could also be differentiated according to 3 main indices: variation range (DX), amplitude of mode (Amo) and coefficient of monotony (Cf.mon).

Results. It has been established that all three types of CIG are recorded in healthy full-term newborn babies within the first 24 hours of life. There are no quality differences in the characteristics of the types of CIG depending on the time passed from the moment of birth to the beginning of the recording. However within the first two hours of life the presentation of 3 types of CIG is markedly changing: by the end of the second hour of life Type III of CIG is dominating, its duration increasing from 5,2 % to 65,0 % ($p<0,01$). In the following 6 - 24 hours of life the proportions achieved by the end of the second hour remain unchanged.

Conclusions. The data obtained could be used as the criteria of the normality in assessing the severity of cardiovascular and central nervous system defects in the newborn babies with perinatal pathology.

NEOADJUVANT INTRAARTERIAL. CHEMOTHERAPY WITH CISPLATIN FOR TREATMENT OF ADVANCED CERVICAL CANCER

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Objective: *Patients with primarily inoperable, advanced cervical cancer should be brought into an operable stage. Selective angiography and preoperative application of cisplatin into both artery uterine is a therapeutic option with low risks and sideeffects. By this intraarterial application a significant higher intratumoral cisplatin concentration can be reached in comparison to systemic application of cisplatin.*

Method: *40 patients suffering from inoperable primary cancers (37 squamous epithel carcinoma, 3 adenocarcinoma) underwent preoperative intraarterial cisplatin infusion 2-3 times into both artery uterine with a dose up to 25 to 50 mg of cisplatin on each side. The representation of the pelvic vessels has been done angiographically both artery uterine have been selected and up to 25 to 50 mg of cisplatin was injected with a perfusor on each side. Due to the known radiosensibilisation caused by cisplatin. 14 patients have been treated additionally with a preoperative intracavitary irradiation 2-3 times (6 Gy each) due to bleeding on the time of clinical admission of the patients.*

Results: *The 40 patients were 27-77 years old. At the time of diagnosis the clinical stage according to the International Federation of Gynecology and Obstetrics (FIGO) classification included 18 x FIGO II, 18 x FIGO III and 4 x FIGO IV. 32 patients (80%) had a complete or partial response: on 27 patients (67.5%) a Wertheim Operation could be performed. 8 patients showed stable disease or progressive disease, especially the two adenocarcinoma were nonresponder. Serious sideeffects of the therapy did not occur.*

Conclusion: *Regional cisplatin therapy by selective angiography of both artery uterine in combination with preoperative intracavitary irradiation is recommended at advanced cervical cancer to reach an operable state of primarily nonoperable patients. The rate of response was 80%. Toxic sideeffects could not be found.*

HISTOLOGY INVESTIGATION OF PLACENTA IN DIFFERENT TYPES OF RETARDATION REFLECTOR-TONIC REACTION IN NEWBORNS

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Objective: *to specify influence of placental pathology on following CNS function retardation in newborns.*

Methods: *162 histology investigations of placentas in newborns with different types of retardation of reflector-tonic reactions formation were examined. There are 40 investigations in newborns with dissociate retardation, 92 in newborns with regular retardation, 30 investigations with accordance reflector-tonic reaction of gestational age.*

Results: *in newborns with dissociate retardation was revealed significant alterations: in 87% of cases placental structure did not correlate to gestation age. Pathological immaturity of placenta was revealed in all cases. Structural disorders of shaggy chorion were revealed in 55%. Extent involutive-dystrophic changes were showed in 95%. Increasing of shaggy chorion fibrosis were revealed in 45% with higher content of fibrinoid in subchorionic compartment. Expressed circulatory disturbances were showed in 50% of cases. Inflammatory changes of placenta and extraplacental membranes were revealed in 95% cases. Placental insufficiency were revealed in all cases. Mentioned changes were revealed unconstantly and were much less noted in newborns with regular retardation and accordance reflector-tonic reactions of gestational age.*

Conclusions: *results of our investigation showed, that coarse extent changes of placenta occur in the cases of reflector-tonic reaction dissociated retardation. Functional disturbances of mother-placenta-fetus complex are followed by these changes.*

IMMUNOCHISTOCHEMICAL ALTERATIONS IN PLACENTA AT GESTOSIS.

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Objectives: The goal of the present work was to analyze the role of immune complexes and NO-synthase activity of placenta in pathogenesis of gestosis.

Methods: 43 woman whose pregnancies were complicated with gestosis (main group) and 22 woman with physiological pregnancy (control group) were observed. The main group include 28 pregnant woman with nephropathy of I stage and 15 - with nephropathy of II-III stages. Composition and localization of fixed immune complexes were detected in placenta by immunofluorescent methods using monoclonal antisera to A,M,G immunoglobulins and C3 complement fraction. NADPH-diaphorase (NO - synthase) activity of syncytiotrophoblast were detected by histochemical method. Also excretion of nitrites, nitrates and products of protein proteolysis of pregnant women in urine were analyzed.

Results. Immune complexes with A,G and predominantly M immunoglobuline classes were found in placenta from the main group. NADPH-diaphorase activity of impaired zones of syncytiotrophoblast and vessel endothelium was decreased. The expression of immunohistochemical alterations were correlated with degree of gestosis and urine excretion of nitrites and oligopeptides.

Conclusions: The results obtained have been demonstrated the key role of pathological immune complexes and NO-generated systems in formation of placental deficiency in pregnancy complicated by gestosis.

THE POSSIBILITY OF PLACENTAL INSUFFICIENCY PROGNOSTICATION IN THE FIRST TRIMESTER

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Objective: prognostication of the development of placental insufficiency in the first trimester of pregnancy.

Methods: there were 317 pregnant women examined in the first, second and third trimesters.

The method used: ultrasound investigation with the measurement of miometry hypertonus, biometry of embryo, amnion and chorion, location of the fertilized egg; dopplerometry of uterine arteries; definition of the b-HGG level investigation of the cervical canal contents for pathogen flora.

Results: as a result of the examination 2 groups were singled out. With the first group, having a high chance of placental insufficiency, the following indexes were registered: the size of hypertonus in the area of chorion exceeded 1 sm, the fertilized egg was located in the middle and lower parts of uterus, the index of resistance was $0,991 \pm 0,085$; the level of b-HGG was 2 MoM; the content of colony forming units (CFU) in the cervical canal was 10^{12} and more.

The second group had a lower risk of placental insufficiency development. No hypertonus at the place of chorion attachment, fertilized egg was located in the upper parts of uterus; the index of resistance was $0,818 \pm 0,71$; the level of b-HGG was 0,5-1 MoM; growth of 10^{5-6} CFU was registered in the contents of the cervical canal.

In the second and third trimesters the development of placental insufficiency was diagnosed in 60% cases with the first group, and 14% - with the second.

Conclusion: complex examination in the first trimester makes it possible to prognosticate the development of placental insufficiency and promote the diminution of perinatal incidence and death rate.

DIAGNOSTIC SYMPTOMS OF ENDOTOXICOSIS DURING PREGNANCY AS A PROGNOSTIC OF SEPSIS

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Objective: *The work was aimed at the elaboration of the diagnostic criteria of endotoxiosis during pregnancy, previous to the development of postnatal sepsis.*

Methods: *general clinical examination, ultrasound investigation, dopplerometry, bacteriologic, immunologic and haemostasiologic examination.*

Results: *the diagnostic criteria of the developing endotoxiosis are the combination of the following symptoms:*

Presence of the one or more inflammatory nidi, even at the stage of remission.

A high degree of vaginal bacterization or bacteriuria.

Appearance and increase of proteins of acute phase of inflammation and placental microglobulin over 30 ng/ml.

Anemia, hypoproteinemia, lymphopenia, leucocytosis with a shift to the left.

Deviation in hemostasiograms.

Reduction of general and local hemodynamic reserves.

Indications of fetal infection.

Increase of middle molecules.

Signs of atypical and constant threat of abortion.

Conclusions: *effectlessness of the complex of efferent detoxicational measures indicates the necessity of pregnancy termination. Prolongation of pregnancy without detoxication or the effect results in serious septic complications in 75-80%.*

THE EARLY DIAGNOSTICS OF OBSTETRIC SEPSIS

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Objective: *the research aimed at the working out the syndrome diagnostics of the progress of pregnancy endotoxemia into sepsis.*

Methods: *there were examined 86 women, presumably having sepsis during delivery and in the first hours and days of postnatal stage. There were applied clinical, immunologic, hemostasiological, dopplerometrical, ultrasonic, bacteriologic, biochemical, electrocardiographical methods of investigation.*

Results: *there were identified different variations of the transition to the septic state, characterized by the combination of laboratory, ultrasonic and bacteriologic criteria. The most frequent and predictably dangerous diseases were the following variants: the 1 variant - punctopenia and anemia, extension of all coagulation tests with an appearance of products of fibrin degradation, the increase in urea, creatinine, direct bilirubine, transaminase levels, the increase in R-protein, homoreactants level, IgG decrease; the 2 variant - hyper leucocytoses with a regenerative deviation of neutrophils till leucomoides reaction, anemia with a great number of reticulocytes, the increase in nonconjugated blood bilirubine, a tendency to hypercoagulation and hyperaggregation of trombocytes, the high level of IgM and the intensive rise of vagina pathogen flora.*

Conclusions: *individual treatment foresees the immunity stimulating therapy in the first variants, the urgent detoxemia treatment is needed in the second variant. The ultrasonic signs identification of a shock uterus with manifested miometritis in absence of full clinical symptomatic with no effect of detoxemia treatment in 12 - 24 hours needs drastic operative treatment.*

SOME WAYS OF IMPROVEMENT OF PATHOLOGICAL UTERINE BLEEDING CAUSES DIAGNOSTICS IN WOMEN OF REPRODUCTIVE AGE

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Objective: *improvement of pathological bleeding causes diagnostics (PBS) in women of the Reproductive age.*

Methods: *hystero- scopic, histologic, citologic, bacteriologic, the investigation of hemostasiograms. 106 women of Reproductive age with clinical manifestation of PBC have been investigated.*

Results: *The use of the diagnostics complex in 86,7% of women permitted to reveal the organic cause of PBC whereas these patients have been treated for dysfunctional uterine bleedings during 2-3 years. The group of the revealed diseases included: endometrium polyps-32,6%; internal endometriosis-29,3%; chronic ensometritis-27,1%; focus endometrium hypoplasia-7,6%; submucous uterine myomas-3,2%. Complex diagnostic technique has allowed to reveal the combination of internal endometriosis and focus endometrium hyperplasia, in 21%cases in half of the cases chronic endometritis was followed by endometrium interpretation difficult in 19,4% of cases. The use of cytologic method improves the diagnostic possibilities in case of atrophy and hypoplasia. The presence of pathogenic and pseudopathogenic microorganisms has been revealed in 21,4% of the patients and virus infection in 7,4% of women.*

Conclusion: *The suggested complex method of PBC causes diagnostics allows to improve the exactness of diagnostics and the quality of management in 2,5 times.*

STRONG PREFERENCE FOR "GENETIC SONOGRAPHY" AS NON-INVASIVE OPTION OF PRENATAL DIAGNOSIS IN PATIENTS WITH PREGNANCIES FOLLOWING INTRACYTOPLASMIC SPERM INJECTION

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Objective: *The option of prenatal diagnosis with nuchal translucency measurement at 10-14 weeks of gestation and second trimester targeted ultrasound including fetal echocardiography (genetic sonography») is reported in patients after intracytoplasmic sperm injection (ICSI).*

Methods: *From January 1995 to December 1998 153 consecutive patents, who had become pregnant after ICSI, were studied. They attended our unit for first and second trimester sonography.*

Results: *67.8% primigravid and 80.9% nulliparous women with a mean age of 32.3 years (+4,1) and 29.6% > 35 years of age were include. Multiple pregnancy rate was 19.7%, 189 fetuses were screened in total. Due to the introduction of genetic sonography» in 1995, the rate of invasive prenatal diagnosis decreased from 74% in 1995, to 48%, 36% and 19% in 1996, 1997 and 1998, respectively. Two inherited numerical and structural chromosomal anomalies in clinically healthy children at birth (1.0%) and four major malformations in all lifeborn children and late abortions (2.1%) were recorded.*

Conclusion: *The results demonstrate that especially in women of advanced reproductive age with a long history of infertility a detailed „ genetic sonography» may be a reasonable and highly accepted alternative to avoid even the relatively low risks associated with invasive screening procedures.*

HUMEROSPINOUS DISTANCE IS NOT OF USE TO PREDICT SHOULDER DYSTOCIA

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Objective: To evaluate if the humeropspinous distance as an indicator of shoulder width could be used to predict shoulder dystocia at term,

Methods: A prospective cross-sectional study of a stratified reference group of 32 healthy women with singleton pregnancies at 39, 40, 41 and 42 weeks by ultrasound was done. Measurement of humeropspinous distance was from the cervicothoracic vertebral level at the convergence of the spinous process to the medial border of the humeral head. A group of 40 women with risk factors for developing shoulder dystocia In labor were tested against the reference range.

Results: The references group was similar to the general population at term, while the test group women were significantly heavier, had larger babies in the previous and present pregnancies and larger symphysis-fundal measurements, but the mean humeropspinous distance was identical in both groups with a similar standard deviation. The only case of shoulder dystocia occurred in the reference group. In 13 other cases the same or greater humeropspinous distance was measured. The correlation between birthweight and humeropspinous distance was low ($r^2=0.0049$) and the correlation with maternal body mass was even lower ($r^2=0.005$). The measurement was easy to carry out, but movement of the fetal arm across the fetal chest (pro- and retraction, circumduction) could considerably influence measurement.

Conclusion: The humeropspinous distance can be measured at term, but has inherent potential for error due to shoulder girdle movement and the measurement has no predictive value for shoulder dystocia.

HYPERTENSION IN PREGNANCY: A DANGER FOR NOW AND LATER

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Objective. Hypertension in pregnancy presents as a syndrome with several phenotypic forms which variously affect a variety of organs, such as the vascular endothelium, blood pressure control, the coagulation system, renal glomeruli and the placenta. Through a number of studies it has been documented that there is a common familial form. Several genetic defects have been associated with expression of the disease in these families. The syndrome may cause or be part of a pathophysiological mechanism that leads to an increased chance of cardiovascular disease in later life.

Method. A review will be given of published studies on familial hypertension in pregnancy, on inheritance mechanisms and on the current knowledge on genetic aberrations as well as on links to later cardiovascular complications in women.

Results. There is a definitive familial tendency. The likely inheritance mode is multifactorial and/or through a major gene defect with an approximately 30% penetration. This evokes increased susceptibility to the disease. Seemingly sporadic cases may have a familial origin as inheritance can occur through sons as well as daughters and may thus skip generations. Gene aberrations linked to or associated with the disease include the genes encoding for angiotensinogen (perhaps different significance for eclampsia and preeclampsia), endothelial nitric oxide synthase and genes on chromosomes 2,4 and 9. as well as some specific rare familial forms with other genetic links. There is a raised risk ratio for cardiovascular disease in later life, particularly coronary artery disease.

Conclusions: Hypertension in pregnancy is a multisystem syndrome which often occurs in families, has a couple of likely inheritance modes, has been linked to genetic aberrations and some of the phenotypes will be related to a raised risk of cardiovascular illness or death in later life.

THE ST. VINCENT TARGETS FOR DIABETES AND PREGNANCY CAN BE MET

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Objective. To assess if the criteria for perinatal mortality and outcome in diabetic pregnancy had been met in a small and well developed island society, Iceland. The aim of the St.Vincent declaration of WHO is that the same pregnancy outcome for diabetic and non-diabetic women should be achieved.

Methods: A 15 year audit of all women >16 weeks gestation with a preexisting or gestational diabetic state in a small but complete national population. The population of Iceland numbers 272.000 and nearly all women are cared for through one clinic, with telemedicine facilities to help monitor the pregnancies in association with local general practitioners and midwives.

Results: In 1981-1995 -there were 64988 babies delivered in the country. women diagnosed with niddm, iddm, and igt were 108 and had a total of 144 babies in 143 deliveries. there were two intrauterine deaths due to iugr in 1981 and 1983. one baby died aged 9 days from left ventricular hypoplasia in 1981. counting this baby the perinatal mortality was 21/1000. one mother died in 1987 at 34 weeks from sepsis secondary to paralysis after severe hypoglycemia. the baby survived and as well, but has learning difficulties. seven cardiac anomalies (4.9%) and 3 cardiomyopathies were diagnosed, with one death (in 1983) but others treated successfully. one anencephaly and 19 weeks was detected by ultrasound and the fetus aborted. no other serious maternal or fetal morbidity occurred. there were 61 deliveries to women with White Class A (43%). Of those wholly insulin-dependent 29 were Class B (35%), 20 Class C (24%), 13 Class D (22%), 1 Class E, 9 Class F (11%) and 5 Class R (6%). The vaginal delivery rate was 64%. Of these 2/3 were induced at 38-40 weeks.

Conclusions. It is possible to meet the aims of the St. Vincent declaration as shown by 0 (zero) perinatal mortality and little neonatal or maternal morbidity for the last 16 years. A centralized organization with intensified monitoring of glucose control, fetal growth and health is required along with education of the diabetic population.

POSTTERM PREGNANCY: FETAL SURVEILLANCE AND MANAGEMENT

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The objective of the study was to evaluate the impact of fetal surveillance on postterm pregnancy management. The study population consisted of 267 uncomplicated patients delivered at gestational age of 38-40 weeks and 279 postterm patients with good dating criteria at or beyond 287 days. The latter group was followed expectantly with twice-weekly NSTs with AFV/BP assessment, and with weekly physical examinations. Evaluation of outcome parameters was undertaken in control and study group. Statistical significance for the differences between groups was determined by Student's t test at $p < 0.05$.

Results. 96 patients fell into spontaneous labor within one week. The rest 183 exceeding 42 weeks of gestational age were induced relying upon antenatal surveillance results. 120 of them were with Bishop scores <6. The first stage was significantly longer in study group (9h37min) to compare with control group (6h45min). Pathological or suspicious for fetal distress CTG tracings were 27.3% and 7.8%, oligohydramnios 12.3% and 3.2%, meconium staining 23.7% and 5.2% respectively. Cesarean section rate of 22.7% (mainly for fetal distress) was in study group to compare with 7.8% in control group. The great majority of complications and adverse outcomes were in cases when pregnancy exceeded 290 days.

Conclusions. Strict antepartum surveillance according to protocol should be undertaken in postterm patients with expectant management. The postterm fetus especially with meconium passage should have continuous FHR monitoring throughout labor and delivery. It is probably prudent to consider pregnancy exceeding 290 days to be postterm.

NORPLANT PREPARATION APPLICATION RESULTS

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Objective: to investigate the impact of the subdermal contraceptive Norplant on the condition of hormonally dependent organs (cervix of the uterus, mammary glands, endometry) in women of various ages and acceptance rates.

Methods: general clinical, ultrasonic study of genitals and mammary glands, noncontrastive mammography in two projections, hysteroscopy, morphological study of aspirate and bioplate of the endometry and the cervix of the uterus, expanded colposcopy, cytological study of vaginal smear, functional diagnostic tests. 100 women patients have been examined. Group 1 was comprised of 50 women aged 20 through 34; Group 2 included 50 women in the age bracket 35 through 45. None of the women had any contra-indication against the Norplant application. Repeated examinations were conducted after 1, 3, 6, 9 and 12 months after the implantation of the preparation, and further on each half-year.

Results: the contraceptive effect reached 100%. In Group 1, a disturbance of the menstrual function was observed more often in the form of acyclic menstrual-like secretions; in Group 2, amenorrhea was observed. In Group 1, this method of contraception was rejected by eight patients due to the disturbance of the menstrual cycle, gaining weight, and acne; in Group 2, by three patients. A regression of hyperplastic processes of the mammary glands was observed in eight women out of 13 with this pathology in Group 1, and in 13 out of 21 - in Group 2.

Conclusion: observed was a high contraceptive effectiveness of the preparation, its positive impact on the hyperplastic processes of the mammary glands, and a low rejection rate. At the same time, the most often side effect is the disturbance of the menstrual function, in particular, in women under the age of 35 years.

ULTRASOUND EXAMINATION WITH COLOR DOPPLER ULTRASONOGRAPHY IN PATIENTS WITH OVARIAN APOPLEXY

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Objective The aim of the study was to assess the value of ultrasound (US) examination with Color Doppler (CD) in patients with ovarian apoplexy.

Methods We performed transvaginal US-examination in 30 patients with ovarian apoplexy: 1) in acute period of ovarian rupture if they had stable indicators of hemodynamics (on admission to hospital before the surgery - laparoscopy); 2) during follow-up in ovulatory period and in luteal phase of menstrual cycle in 1, 3, 6, 9 and 12 months after surgery. Follow-up US examination was combined with CD (CD-system - Acuson 128 XP/IO). The control group consisted of 10 women with normal ovulatory menstrual cycle.

Results 1. The ovary of normal size (do not exceed 4,5 cm in diameter) containing a few hypoechogenic spherical spaces 1,5-2,5 cm in diameter, the ovarian follicles, which are located peripherally (in 20 patients) or spherical cystic mass 5-7 cm in diameter with echo-signs of corpus luteum cyst (in 10 patients) were visualized by US examination in acute period of ovarian apoplexy. Corpus luteum cyst's rupture was characterized by appearance of hypoechogenic smalldispersive cystic fluid (blood) with the highly echogenic structures (blood clot); of numerous components of different echogenicity - septa (fibrin's fibers) or of delicate network (site of corpus luteum's vascularization and luteanization). Mild or medial volume of fluid in cul-de-sac was detected by US, echo-free in 14 patients or smalldispersive in 16 patients. US-findings were confirmed by laparoscopy in all cases. 2. US-CD-follow-up after the laparoscopy allowed to reveal structure-functional ovarian changes (absence of ovulation in 18 cases, ovarian cysts in 24 cases) and vascular-hemodynamic disorders - reliable rise ($p < 0,05$) of ovarian flow's characteristics ($TR=0,52 \pm 0,05$; $PI=0,72 \pm 0,07$, $S/D=2,19 \pm 0,11$) in comparison with control group ($0,48 \pm 0,04$; $0,64 \pm 0,1$; $1,96 \pm 0,17$ accordingly). The extent and stableness of hemodynamic disorders of ovarian flow correlates with volume of intra-abdominal hemorrhage caused by ovarian rupture.

Conclusions US examination is a valuable method for the diagnosis of ovarian apoplexy allowing to specify the form of this disorder and choose the optimal management of patients with ovarian rupture. US-follow-up makes it possible to evaluate structural and functional ovarian changes (absence of ovulation, ovarian cysts). Use of CD allows to register highly resistant flow in basin of a. ovarica and to follow the normalization of hemodynamic indicators of ovarian flow in patients with ovarian apoplexy.

MICROVILLOUS RELIEF OF ENDOMETRIAL EPITHELIOCYTES AND INFERTILITY IN PERITONEAL ENDOMETRIOSIS

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Objective. To estimate the role of hormone-dependent changes of the microrelief of endometrial epitheliocytes in pathogenesis of infertility associated with peritoneal endometriosis.

Methods. The endometrium of rats with normal estrous cycle, of rats androgenized in the neonatal period and those to whom folliculin and progesterone was given after ovariectomy as well as the endometrium of 9 women in late secretory phase with infertility and peritoneal endometriosis (rAFS stage I-II) was studied with the use of scanning electron microscopy.

Results. Microvilli were found in the endometrial epitheliocytes of rats at the stage of proestrus conditioned by the influence of estrogens. At the metestrus stage when estrogen level decreases and that of progesterone increases microvilli are reduced. The estrogen-dependent character of the microvilli formation and the progesterone-dependent process of their reduction was reproduced in ovariectomized rats. Microvilli are seen in the androgen-sterile rats on the background of tonic estrogen hypersecretion and progesterone deficiency. Microvilli are seen in the endometrial epitheliocytes at late secretory phase in all patients with infertility and peritoneal endometriosis.

Conclusions. The persistence of microvillous relief of endometrial epitheliocytes in late secretory phase of the cycle is indicative of the deficiency of endometrial secretory transformation, deficiency of the ovarian function in peritoneal endometriosis and may result in a disorder of the ovicell implantation and infertility.

OCCURENCE OF NONTOXIC GOITER IN PATIENTS WITH MASTOPATHY

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Objective: To reveal the occurrence of nontoxic goiter in patients with mastopathy.

Method: 101 women with mastopathy (94 of them had diffuse and 7 – nodular goiter) at the age of 17-55 were examined. The diagnosis of mastopathy was based on palpation, ultrasound (on the 7th-7th day of menstrual cycle) and roentgenologic (on the 7th-10th day) findings. The thyroid size and structure was evaluated by palpation and echography. Clinical data, thyroid and thyrotropic hormones blood levels indicated that all women were euthyroid.

Results: Thyroid hyperplasia was found in 75 women (74%); diffuse enlargement of the thyroid – in 30 (40%); diffuse nodular goiter – in 35(48%); nodular goiter – in 9(12%). Among 66 patients with diffuse nontoxic goiter and diffuse nodular goiter, I degree thyroid enlargement was seen in 28 (42%), II degree – in 23 (35%), III degree – in 15 (23%). These data considerably exceed the occurrence of nontoxic goiter in the Leningrad population (Shliakhtina L.G., 1967).

Conclusion: Frequent combination of fibrocystic mastopathy with nontoxic goiter suggests possible role of iodine deficiency in pathogenesis of fibrocystic mastopathy.

THE STUDY OF TYPES AND TITRES OF ANTI - CARDIOLIPIN ANTIBODIES IN WOMEN WITH ADVERSE PREGNANCY OUTCOMES

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Objective: Anti-cardiolipin antibodies (aCL) associated with various obstetric complications and subject to thrombosis of placental vessels. aCL associated with thrombosis does not directly bind to CL itself, but to b_2 -glycoprotein I (b_2 -GP I) which attached to CL. Our purpose was to study the actions of aCL and anti-cardiolipin b_2 -glycoprotein I complex antibodies (anti-CL· b_2 -GP I) on pregnancy outcomes.

Methods: Sera from 80 pregnant women with adverse pregnancy outcomes (recurrent miscarriages, intrauterine death, severe preeclampsia and IUGR) were detected on presence of aCL and anti-CL· b_2 -GP I by enzyme-linked immuno-sorbent assays (ELISA kits, YAMASA). The diagnosis "placental insufficiency" was certified morphologically in all patients.

Results: anti-CL· b_2 -GP I in low and moderate titres (1,3-8,0 Units/ml) was detected in 10%, in high titer — 50 U/ml in 1,25% of women. aCL in low and moderate titers — in 29% and in high titers — in 9% of women. In the half of women with low or moderate titres of anti-CL· b_2 -GP I were another symptoms of antiphospholipid syndrome — thrombocytopenia and livedo reticularis. In one woman with high titer of anti-CL· b_2 -GP I ileo-femoral thrombosis was occur on 31 week of pregnancy. Among women with aCL in low and moderate titres viral and streptococcal infections was found in majority of cases. Only one of high titer aCLs women has lupus-like disease. None of other patients fulfilled the diagnostic criteria for autoimmune diseases and had any history of thrombosis. Among women with anti-CL· b_2 -GP I most pregnancies ended by miscarriage and intrauterine death in II-III trimesters. Most characteristic complications of pregnancy among women with aCL were severe preeclampsia and IUGR.

Conclusions: Therefore the adverse pregnancy outcomes can be connected both with anti-CL· b_2 -GP I and with aCL and depends a little from the titer of antibodies. The underlying mechanisms of actions of different types of aCL on placental function required the further elucidation's.

DELIVERY AT DANDERYD HOSPITAL – THE CURRENT CONCEPT

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The current perinatal mortality, 0.47 %, at Danderyd Hospital, and the low perinatal and maternal mortality in Sweden, is mainly connected to the maternal health programme, that was introduced in the 1940:s. Also, the improved health status of the mothers has had a great impact. Information to the mothers, surveillance of the pregnancies, and identification of high risk pregnancies, is important. Parental education nowadays plays an important role.

In the mid-1960:s, the fathers were allowed into the delivery room. Rooming in for the babies in day time was introduced in the 1970:s, and "around the clock" rooming in became common around 1990. At that time the children's ward was taken away. This means that the mother and the infant are kept together all the time, except if the child needs pediatric surveillance and treatment at the neonatal intensive care unit (NICU).

Approximately 1975, shaving of the mothers' pubic hair prior to parturition and disinfection with chlorine solution was abandoned. Around 1988, after careful investigation, it was decided unnecessary to have sterile conditions in normal delivery. Today, we have what we call "clean delivery" in all normal cases. Instruments are sterilized, however. When instrumental deliveries or big ruptures that need suturing occur, the patient goes into the operating theatre with usual sterile conditions.

During cesarean sections, the father is usually present throughout the whole procedure, unless the mother has general anesthesia (in which case the father usually is present until she is put to sleep), or if there is an extremely urgent emergency cesarean section.

Often the father stays with his family during the hospital period, at least if it is the first child.

Visits at the postpartum wards are allowed freely by the father and sisters and brothers, unless there is a period of epidemic, like influenza or RS-virus.

Mothers in Sweden are allowed to stay at home and care for their newborn baby for 18 months, of which 12 months are with "sick leave" salary. The period can be shared between the parents, and quite a few men take "baby leave" for part of the time. The father is allowed 10 days for "paternity leave" in connection with the delivery.

A video of upright position at parturition and a video of a scheduled cesarean section will be shown.

TRANSDERMAL ESTRADIOL IN THE TREATMENT OF HYPERGONADOTROPIC AND NORMOGONADOTROPIC OVARIAN INSUFFICIENCY PATIENTS

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Objective: to investigate influence of the transdermal estrogen — CLIMARA on clinical, hormonal and sonographic features in hypergonadotropic and normogonadotropic ovarian insufficiency patients.

Methods: We observed 9 patients with hypergonadotropic amenorrhea (group I) and 11 normogonadotropic ovarian insufficiency patients (group II) in age between 17-45 years old, mean age was 28,6(2,4 year. Transdermal estrogen was given by common way. Noretisterone-5mg was added at last week. Treatment duration was 6 cycles. Hormonal examination was performed by immunoferment assay before and at 3-rd and 6-th treatment cycles. Ultrasound examination was managed at the same time. Individual acceptability, side effects was evaluated, breast examination before and after treatment was provided. Occurrence and regularity of menstrual reactions was controlled. Statistical analysis was based on Student criteria.

Results: Generally good acceptability without significant side effects was observed. During treatment patients from both groups had regular menstrual reactions. There was slight breast enlargement without adenomathosis. In both groups of patients significant elevation of blood estradiol levels was detected (group I: from 135,6(24,7pmol/l to 323,2(39,3pmol/l; group II: from 178,6(26,4 pmol/l to 404,2(38,1pmol/l; $p<0,0001$). Changes at plasma prolactin levels had no statistical importance. FSH and LH blood concentrations in group I decreased significantly ($p<0.001$), in group II- FSH and LH levels had no significant differences. Endometrial thickness increases during therapy in both groups of patients (I group: from 0,07(0,03cm to 0,32(0,02cm; II group: from 0,15(0,03cm to 0,33(0,04cm, $p<0.001$). Endometrium was proliferative in all patients.

Conclusion: Transdermal estrogen Climara (Shering AG) is well acceptable, induces elevation of plasma estradiol levels along with adequate endometrial reaction and could be used in hormonal replacement therapy at hypergonadotropic and normogonadotropic patients of reproductive age.

SONOGRAPHICAL AND CLINICAL ASPECTS OF HEPANOBILIARY SYSTEM IN PATIENTS WITH ADENOMIOSIS AND ENDOMETRIOID OVARIAN CYSTS

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Objective: The purpose of this study was to evaluate the role of hepatobiliary system in patients with endometrioid ovarian cysts and adenomiosis for developing the treatment strategy for this patient population.

Methods: Eighty nine consecutive premenopausal non-pregnant women had laparotomy between October 1997 and October 1998 because of the presence of a persistent adnexal mass and adenomiosis. They underwent liver and biliary tract sonography, transvaginal ultrasonography. The ultrasonographic impression were compared with the histopathologic diagnosis.

Results: Pathological disorders of liver — hepatitis in 31 (34,8 %) and biliary tract disorders — in 43 (48,3 %) patients with endometrioma and adenomiosis Hepatobiliary activity was assessed on the basis of the determination of blood biochemical parameters, hepatic parenchymatous clearance and phasic polarized light spectrum of bile, each subject underwent transvaginal and transabdominal ultrasonography.

Conclusion: The findings indicate that patients with endometrioid ovarian cysts and adenomiosis should be referred to the group at a high risk of disorders of hepatobiliary system. Endometrioma is one of the most common ovarian diseases in premenopausal women. Transvaginal ultrasonography has a good predictive capacity in the diagnosis of this kind of cyst and adenomiosis. The finding indicate that hepatotropic agents should be added to combined treatment of this category of patients.

THYROID AND MAMMARY GLANDS ABNORMAL IN WOMEN WITH PELVIC MASSES

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Objective: The purpose of this study was evaluate the role of dishormonai deseases of the thyroid and mamma in patients with pelvic masses and adenomiosos to developing the treatment strategy for this patient population.

Material and methods: A total of 230 women were examined, 193 of these in the main group and 37 controls. Pathological changes in the thyroid and mamma were detected in 137 (70,9 %) patients in the main group and in 6 (16,2 %) controls.

Results: The highest sensitivity and specificity for detecting pelvic masses were achieved by transvaginal sonography (100 and 91 %, respectively).

The findings indicate that patients with pelvic masses should be referred to the group at a high risc of dishormonal pathology of the thyroid and mamma, which confirms the theory on the universal origin of pathological changes in all target organs and on the synchronous developments of benign hyperplastic processes.

Conclusion: We recommend a routine follow-up with transvaginal sonography in women with pelvic masses. Tgthyroid and mammary glands sonography should be used for developing the treatment strategy for this ratient population.

DISTRIBUTION OF HLA – ANTIGENS AMONG PATIENTS WITH ENDOMETRIOSIS

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Objective: To study the occurrence of human leukocyte antigens (HLA) in patients with endometriosis.

Methods: 48 women with endometriosis at the age from 22 to 38 years were investigated. Subjects recruited at laparoscopy. HLA-A, B antigens were determined by standard lymphocytotoxic test. PCR-SSP method was used for HLA-DR typing. We detected 15 antigens locus A, 24 antigens locus B end 13 antigens locus DRB1. The control group consisted of 78 healthy women with regular menstrual cycle and without endometriosis

Results: The increase of the frequencies HLA-A24 was found compared to frequencies in the healthy women (33.3% vs. 20.9%, $p < 0,01$). HLA-A3 and HLA-B18 were found significantly more rare (14,6% vs. 29,6%, $p(0,05$ and 4,2% vs. 14,2%, $p(0,05$ respectively) than in control. The increase of DRB1* 16 was observed in women with endometriosis (11.6% vs. 2.6%, $p < 0.05$). The risk of endometriosis development was greater in the patients with negative DRB1* 16–antigen (relative risk - 5).

Conclusions: HLA-DRB1* - antigen is predispose to development of endometriosis.

PROPHILACTIC OF POSTOPERATIVE SEPTIC COMPLICATIONS BY MEKSIDOL

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Objective: to value efficiency of septic complications after sectio Caesaria and episiotomy prophylactic by local application of meksidol.

Methods: control of prophylactic during postoperative period based on clinic, biochemical and immunology blood tests, results of ultrasonography.

Results: 120 patients after sectio Caesaria (group A) and 120 after episiotomy (group B) war examined. Each group divided to subgroup A-1, B-1 (using antibiotics) and A-2, B-2 (infiltration wound by meksidol).

Conclusions: prophylactic by local application of meksidol allows lower frequency of septic complications after sectio Caesaria from 8,3% to 3,3% and after episiotomy from 6,7% to 3,3%.

MOLECULAR STUDIES OF CF IN RUSSIA

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Objective. Cystic fibrosis (CF) is one of the most common autosomal recessive disorders affecting about 1 in 2 500 live births in Western and 1 per 6000 live births in Eastern Europe populations.

Methods. Polymerase chain reaction (PCR) is used for detection pattern of CF mutations in high risk CF families in Russia and in St. Petersburg .

Results. Altogether 1955 CF families were admitted for molecular studies & PD of CF in our Center, 390 of them requested for PD & 97 pregnancies after PD were recommended for termination. DelF508 is encountered in 30-50% of all CF chromosomes in different Slavs; other CFTR mutations of diagnostic value in Russians include W1282X; 2143delT; G542X; N1303K, CFTRdel21kb. Common mutation delF508 was registered in 59% PI-patients from St. Petersburg. The most important mutations for molecular diagnostic of CF in St. Petersburg are delF508-59%, CFTRdel21kb-3,7%, W1282X-3%, We adopted multiplex reaction for simultaneous testing delF508 2143delT W1282X and CFTRdel21kb. It allows screening of this common mutations in one reaction.

Conclusions. About 65-75%% of all Russian CF chromosomes might be identified by mutation analysis so far. The most important mutations for molecular diagnostic of CF in Russia are delF508, CFTRdel21kb, W1282X , 2143delT.

ONCOPLASTIC VARIATIONS IN OPERATIVE TREATMENT IN pT2 - MAMMACARCINOMAS

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We retrospectively reviewed 156 cases of pT2-mammary carcinomas (Tumorsize 2-5 cm) who were treated between 01.01.93 and 01.10.97 in our hospital. We evaluated in how many cases and with the usage of which techniques we were able to perform breastconserving surgery. With this tumorsize we almost exclusively used oncoplastic mammoplasties and flaptechnics which were shaped individually depending on the modality tumorspread, the size of the breast and the personal wishes of the patient. With this method of altering the treatment according to the needs of the individual depending on the tumorsize and tumorlocation and including adjuvant therapies as radiotherapy and chemotherapy, we were able to save the breast in 106 (67.9%) of all patients with pT2 - Tumors.

Conclusion: *At our hospital we are able to offer many of the patients with pT2 mammary carcinomas, who are usually still often treated with ablation of the mamma, breastconserving procedures. We do this with the help of individualized patient-oriented and tumor-adaptive treatment plans and linked with the departments of radiotherapy and chemotherapy.*

THE USE OF DOPAMINE FOR TREATMENT OF SEVERE OVARIAN HYPERSTIMULATION SYNDROME

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Objective: *To assess the performance of low-dose dopamine treatment for severe ovarian hyperstimulation syndrome (OHSS). Design: Prospective descriptive study.*

Method: *Eight patients suffering from severe hCG-induced OHSS were included.*

Results: *All cases of severe OHSS were characterized by ascites, pleural effusions, excessive hemoconcentration, hypovolemia, hypercoagulation, renal insufficiency with oliguria and elevated serum creatinine and urea concentrations and liver insufficiency with elevated transaminases levels. Serum estradiol concentrations were 2500- 11000 pmol/l. The ovaries were 12-25 cm in diameter and contained multiple lutein cysts. Treatment of severe OHSS included meticulous fluid and electrolyte balance until hemoconcentration abated and hematocrit was less than 0,4 g/l. All patients were administered an intravenous low-dose dopamine. The use of dopamine led to improvement of renal perfusion, high urine flow and reduction in ascites. No adverse events were observed during administration of dopamine.*

THE OPERATIVE HYSTEROSCOPY EXPERIENCE

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Objective: to access the possibilities of operative hysteroscopy. Many hysteroscopic operations make it possible to avoid hysterectomy thus preserving menstrual and reproductive functions. Besides medical problems intrauterine (IU) hysteroscopic surgery helps to improve psychoemotional status of these patients.

Methods. Endoscopical equipment "Karl Storz" (Germany) was applied in our study. Mechanical instruments (semirigid forceps, scissors, optic rigid scissors) and resectoscope were used for the surgical manipulations. Intrauterine surgery was performed under intravenous anaesthesia (diprivan, ketalar) in 348 patients, epidural anaesthesia in 5 patients and endotracheal anaesthesia in 6 patients.

Results. From 1996 to 1998 a total of 1881 hysteroscopies was made in gynecological department including 359 surgical ones: 138 polypectomies, 103 myomectomies, 48 endometrial ablations, 44 foreign body removals ("lost" IUDs, ligatures, bone fragments), 19 adhesion resections, 7 IU resections. Hormonal pretreatment with GnRH agonists (16 patients) as well as gestagens (38 patients) was carried out before surgery (myomectomy and endometrial resection). Abdominal ultrasonography proved to be useful in resection of extensive IU adhesions, IU septum and myomectomy to monitor the course of surgery. Intraoperatively during the mechanical myomectomy (5-6 cm) one patient had cervix vascular hemorrhage that necessitated cervix suturing and haemotransfusion.

Conclusion. Thus we believe IU operative surgery to be highly efficient and reliable.

PROGNOSTIC SIGNIFICANCE OF HCG MEASUREMENT IN IVF PROGRAM

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Objective. HCG measurement as pregnancy test as a highly precision method allows to detect the earliest pregnancy (7 – 9 days). The correlation between HCG concentration at the first measurement (12-14 day after embryo transfer) and the pregnancy outcome were investigated retrospectively.

Methods. Maternal serum HCG level of the patients on the 12 – 14 days after embryos transfer were measured by standard immunoassay method (DIAPlus). Serum samples were from Center of human reproduction (St. Petersburg).

Results. Pregnancy outcomes of 222 patients after IVF were analysed. First group consisted of 142 patients who gave birth to the alive child. Medians of HCG level in this group changed from 110 u/l at 12 day up to the 255 u/l at 14 day and had an average value 211 u/l. At the second group there were 57 patients with early abortion and 23 with pregnancies terminated within 12 weeks of gestation. No increase in average HCG level on 12 to 14 day after embryos transfer revealed in these patients. Average value was 90 u/l.

Conclusions. HCG measurement on 12 – 14 days after embryos transfer has a good prediction significance for pregnancy outcome. HCG level decreased less than 80 u/l indicates with highly probability at early abortion or termination of pregnancy. This situation have to be corrected by additional treatment for increasing pregnancy outcomes after IVF.

DIAGNOSTIC SIGNIFICANCE OF CARBOXYHAEMOGLOBINE (COHB) AMONG OLDER PRIMIPARA

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A change of the level of (CoHb) in blood of pregnant women is one of the factors of obstetrics and perinatal complications. Influence of CoHb level on the emergence of fetoplacental deficiency was proved in experiments on the chronic hypoxia model (Nazyrov A.T., Israilova M.Z.).

Objective: *The objective of the research was to study the content of CoHb in the blood of pregnant women as one of the factors of obstetrics and perinatal complications.*

Methods: *We determined CoHb content in the blood of pregnant women by means of the spectrophotometric methods during the second and third trimester of pregnancy. The study covers 90 older primipara.*

Results: *We found out that the value of CoHb content among older primipara increased by 36% ($p < 0,001$) in the first trimester, by 92% in the second trimester and there was a 2,5 – fold increase in the third trimester.*

The research shows that the rise in the intensity of endogenic CoHb production in the blood has led to considerable disorders of metabolism during glycolysis.

The increase of CoHb ($p < 0,001$) led to the increase lactic acid both in the mother's and fetus' organism; changes in the lactate content correlate ($r = 0,77$) with changes in umbilical blood. The research into concentration of substrates in placenta tissue shows that the lactate content went up by 48% ($p < 0,001$), pyruvate concentration increased simultaneously with lactate level. The correlation ratio was ($r = 0,70$).

Probably, the increase of the level of these substrates coming from the fetus is linked with activation of adaptation reactions in placenta.

Later this leads to the increase of concentration intermediate metabolites Krebs cycle: isocitrate by 83% ($p < 0,001$), valate by 31% ($p < 0,05$), PHEP – by 56% ($p < 0,05$).

Conclusions: *This the increase endogenic CoHb in the blood of older primipara has led to anaerodisation of metabolism caused by the decrease of oxygen content, acidosis, increase of substrate concentration, which is of compensatory-adaptive character and is an indicator of excessive exertion of adaptive capabilities of placenta and a threat to the fetus.*

BACTERIAL VAGINOSIS AS MANIFESTANT OF WOMEN'S IMMUNODEFICIENCY

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Objective: *The immune status of fertile women with bacterial vaginosis (BV) in depending of the clinical features and treatment effectivity has been studied.*

Methods: *There were 16,6% with symptoms, 20% with monosymptom, 63,4% with polysymptom course BV patient. The quantity of circulating lymphocytes different populations (T.I.Grishina, 1983), the concentration of serum A, M, G Ig classes (Mancini, 1963), the myeloperoxidase activity (MPO) of peripheral blood (PBN) and vagina mucous neutrophils (MVN) (Grechem-Cnolle, 1978) of 120 patient with BV and 40 healthy woman at the age from 18 to 45 years were determined. BV patients were treated by the two-staged method according to E.F.Kiry (1993). Student's t-test was used for the statistical analysis of obtained data.*

Results: *It has been shown that independently on the clinical type, the BV patient's immune system has disbalance according to the secondary transitory immunodeficiency (STTD) type, expressed by the T-, B-lymphocytes number decreasing ($p < 0,001$; $p < 0,01$), 0-lymphocytes number ($p < 0,001$), Ig A and M increasing ($p < 0,001$, $p < 0,01$). There were the PBN MPO activity reductions ($p < 0,01$) and the one of MVN – increasing ($p < 0,01$). It has been established that the STTD extent directly correlates with the extent of clinical manifestations and treatment results.*

The clinical rehabilitation of patient with the persistent BV has been achieved only by the immunostimulators using.

Conclusion: *The obtained data totality permits to consider that BV is one of the most important women's STTD manifestant.*

THE APPLICATION OF THE PEPTID BIOREGULATORS FOR THE TREATMENT OF THE BARREN MARRIAGE

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In this work are presented the dates about the improvement of the treatment efficiency for the barren couples by the application to the composite therapy the peptid bio-regulators: medicinal preparations (timaline, timogene) and biology-active additions to the food (prostalamine, testolamine). Timaline and its synthetic analog timogene were used for the treatment of the diseases spreading via sex way and during the immunology-biological incompatibility of the married couples, and also to women for the correction of the vagina biocinose and for the prophylactics post-operating suppurative-inflammatory complications after plastic operation on the uterus tubes. Prostalamine and testalamine had a good effect during exretorno-toxical form of the men sterility, improving the mobility of the spermatozoids.

PARTICULARITIES OF CLINIC AND TREATMENTS OF POSTOVARIOECTOMIC SYNDROME

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The particularities of the current postovarioectomic syndrome (POES) studied in 32 women after the total ovariectomy in transitional age (after 45 years) on the background of preserved cycle. The syndrome frequency has formed 78% (25 women). Distinctive was a faster development in the comparison with the age menopause as early, so late climacteric disorders. In the structure of first prevailed the vegetative symptoms: hot flushes - 100%, profuse sweating - 64%, headache - 24%, palpitations - 32% of women. Postoperative hypertension is developed in 36%, hypotension - 12%, sympathoadrenal crises - in 8% of patients. The frequency of psychic symptoms was in 2,2 times above (72%), then under the age menopause. Amongst them is prevailing the asthenic syndrome (32%). The depressive state has formed 8%, the reduction of libido - 20% of cases. In the large part of patients (64%) the syndrome is developed during 1 month after operation, in 16% - during following 2-4 months. The patients dominated in the structure POES with heavy and average degree of gravity of syndrome - 56%. The elevated frequency and gravity of early climacteric disorders under POES is, at our glance, the result of unreconstruction of neurohypothalamic centres after the acute switching off the gonads function, as well as disadvantage premorbidity background, based on the heavy gynecological pathology and connected with her operative interference. There noted that faster development and late postmenopausal disorders. Symptoms of dryness in the vagina, itching, dyspareunia, dysuric disorders after 1st post operating year presented 12%, after 2nd - already 60% of women. Atrophic vaginitis revealed in 52%, urethral syndrome - 28%, arthralgia and myalgia - in 20% of patients. Gain of mass after operation over 10 kg is was noted in 24% of patients. As a whole somatotrophic symptoms after 2 years post operation are revealed in 72% of women. The quick development of such tissue processes wholly explicable by the progressive deficit of sexual steroids on the background of the total removing of gonads. The acute deficit of estrogens in the organism witnesses by colpocytology. The index of maturation varied from 40/60/0 to 20/70/10. Similar factors should be take in account for selecting corrective HRT in this contingent of patients. The best results of treatments of early climacteric disorders under POES are reached by using the facilities of HRT with the greater gestogen component, potentiationing the therapeutic effect of estrogens. The prophylaxis of late disorders in patients with the hysterectomy could be conducted by the isolated using of estrogens.

PEQUILIARITIES OF THE PSYCHOLOGICAL STATUS OF WOMEN WITH SEXUALLY TRANSMITTED DISEASES

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Objective: Sexually transmitted diseases (STD) are shown are the most frequent causes of inflammatory form of urogenital system and some patients with STD have psychological problems, which are required consultation of psychiatrist. Than 30 non-pregnant women with STD were tested to detected of peculiarities of psychological status.

Methods: Experimental-psychological tests: Lusher color test, Liri test for diagnosing of interpersonal relations and MMPI were used. Results, received in the Institute of Frontier Psychiatry, detected correlation between formalized data of those tests with presence of definite psychopathologic syndrome. This investigation allowed making a supposition of presence of disturbances from patients with STD. Average age of patients with STD was $30,6 \pm 1,3$ years old.

Results: In 19 (65,3%) cases it was possible to suspect presence of psychopathological syndrome: excitable and astheno-hypochondric types - in 1 (3,3%) case, hysteric and schizoid - in 2 (6,7%) cases, hypothyric - 3 (10%) cases, explosive and cyclothymic - in 6 (20%) cases, respectively.

Conclusion: It is possible to highlight that received data are not psychiatric diagnoses. The high rate of suspected psychopathological syndromes in gynecological patients with STD must put the attention of gynecologists to this category of women and makes them to insist on the consultation of psychiatrist if it is necessary.

PROBABILITY LABOUR ACTIVITY AFTER OPIOID ANALGESIA IN THE PRELIMINAR PERIOD

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Objective: The basic purpose of the given work was the experimental and clinical proof of influence opioid analgetics on the contractility of miometrium and labour.

Methods: Study contractility of isolated strips of myometrium. Outside tocography. 4 groups of comparison, 1-st with Promedol 20 women, 2-d with Fentanyl 22 women, 3-d with Tramal 28 women, 4-th with Moradol 18 women are allocated. 32 strips of myometrium have received on cesarean section from 8 women. In series of experiments the record of contractions of myometrium induced of Oxytocin on a background of each of opioid analgetics was carried out.

Results: The study of myometrial strips has shown, that opioids Fentanyl and Promedol cause authentic increase of frequency and decrease of amplitude of contractions at increase of basal tone. Tramal and Moradol caused increase of amplitude of muscular contraction, and Tramal considerably reduced basal tone ($p=0.001$). The data of clinical tocography have shown, that the application of Tramal in 90 % ($p < 0.05$) cases resulted in development of regular labour activity on a background of treatment of the preliminary period. Moradol resulted to improve of labours in 72 % ($p < 0.05$). Promedol and Fentanyl suppressed contractility of myometrium and only in 36 % and 45 % accordingly ($p < 0.05$) the transition of the preliminary period in regular labours was observed.

Conclusions: Opioid analgesia promotes regulation of labour activity and is acceptable to adequate treatment of the preliminary period and preventive maintenance of weakness in labours.

EFFICIENCY OF OPIOID ANALGESIA IN LABOR

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Objective: Labor is a unique physiological process accompanying with a pain. Hence adequate analgesia in labor is the important factor of regulation of delivery. However, despite of physiologically substantiated opioid analgesia the efficiency in labor is small. The purpose of work was the definition of the factors influencing efficiency opioid analgesia of different groups.

Methods: The estimation of efficiency of analgesia was carried out on a visual - analog scale of a pain before and after analgesia in labor, circulation of the mother was estimated on the computer integrated impedansometry. The statistical analysis carried out on a standard technique. 4 groups surveyed are allocated. 1-st group 38 Promedol analgesed parturients; 2-d group 40 women analgesed with Fentanyl; 3-d group 46 Tramal parturients; 4-th 36 women received Moradol.

Results: In all groups surveyed 100 % analgesia was not revealed. In 1-st group complete analgesia has made 32 %, satisfactory analgetic effect is received in 63 %, in 2-d group 15 % and 72 % accordingly, in 3-d group 11 % and 59 %, and in 4-th - 17 % and 63 %. The analysis of hemodynamics has shown, that was most effective analgesia at a hypodynamic type of circulation at which parameters of CI, Q, CV, GPR were authentically below, than following sizes: CI $2.5 \pm 0.2/\text{min}/\text{m}^2$; Q $4.7 \pm 1.5/\text{min}$; CV 56 ± 3.2 ml; GPR $1447 \pm 72 \text{ din}/\text{sm}/5 \text{ sec}$.

Conclusions: The various efficiency of the opioid analgesia in labor apparently is connected to a type of hemodynamics at the women and depends about features of influence of opioids on opioid receptors and antinociceptic system as a whole.

DIRECT DELETION ANALYSIS AND CARRIER DETECTION IN D/BMD FAMILIES

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Objective. Duchenne/Becker muscular dystrophy (D/BMD) is an X-linked lethal disorder which affects 1 in 3,500 boys. The reported study summarizes the results of our molecular studies in D/BMD families.

Methods. Altogether 280 Duchenne & 28 Becker muscular dystrophy patients were subjected to the multiplex PCR (8 exons in 5' & 13 exons in 3' deletion hotspots) for direct identification of dystrophin gene deletions. Analysis of highly polymorphic short tandem repeats (STR-44, 45, 49, 50) in dystrophin gene was utilised for carrier detection in D/BMD families.

Results. A ratio of Duchenne and Becker forms of muscular dystrophy in our cohort of patients of the patients was 91% and 9% respectively. Altogether 131 dystrophin gene deletions were identified. They include 76% (99) in 3'-region, 22% (29) in 5'-region. Deletions extended 5'&3' regions both were found in three cases. Total 39 prenatal diagnoses were carried out in families with D/BMD resulted in 12 preventions of birth. The rate of heterozigosity of STR's was found 89.3%. Diagnoses without affected individual were made in 5 families by means of STR analysis.

Conclusions. The molecular technique elaborated and used in this study is very efficient for direct mutation detection in dystrophin gene and thus it is rather important for improved genetic counseling, carrier detection and prenatal diagnostic in D/BMD families.

DUCTUS VENOSUS AND INFERIOR VENA CAVA BLOOD FLOWS DURING NORMAL PREGNANCY

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Objective: To compare dynamic of S/D ratio in ductus venosus (DV) with one in inferior vena cava (IVC) during normal pregnancy.

Methods: Blood flow waveforms in the DV and IVC were recorded in 162 fetuses from normal pregnancies between 9 and 40 weeks of gestation (Aloka 2000). Peak systolic (S) diastolic (D) velocities of blood flow waveforms and S/D ratio were measured.

Results: DV S/D ratio decreased as a function of increasing gestational age [$SD = 1,721 - 0,231 \times \ln(\text{week's gestation}) + 0,07 \times (\text{week's gestation})$, $p < 0,0001$]. This was attributed to an increase in the velocity of D wave. IVC S/D ratio increased with advancing gestational age [$SD = 1,628 + 0,0018 \times (\text{week's gestation})^2$; $p < 0,002$] because of the increasing in the velocity of S wave.

Conclusions: Experimental studies have shown that inferior vena caval blood passes through the right atrium mainly to the right ventricle. Ductus venosus blood, which contains well-oxygenated umbilical blood, passes through the foramen ovale to the left atrium and left ventricle. Thus S and D wave of DV waveforms could reflect the hemodynamic status of the left ventricle whereas S and D wave IVC waveforms could reflect the hemodynamic status of the right ventricle. Our findings have suggested that compliance of the right ventricle could be different from left one.

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Conclusions. Our findings have suggested that compliance of the right ventricle could be different from left one.

PREOPERATIVE PREPARATION OF GYNECOLOGIC PATIENTS

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The value of the quality of intestine preparation was conducted on 70 patients with different gynecologic diseases needed for operative intervention. All patients were divided on 2 groups by the methods of preparation. 1 group – traditional methods (37 patients); 2 group – with using of Macrogol 4000 (Fortrans) (33 patients). It was used the follow dosage: 2 sachets of powder Fortrans for oral solution during 2 hours before the day of operation. The lavage of intestine continued in 3-4 hours. The traditional methods of preparation included the 3 days of unresidual diet and evacuant enema. Intraoperatively in 67,6 % of 1 group patients was observed intestine distention. The full intestine evacuation was presented on 75,8 % of cases. The duration of operation in 1 group formed in average $1,5 \pm 0,4$ hours, in 2 group – $1,0 \pm 0,3$ hours. Intestinal peristalsis appeared in 20-25 hours after operation on 70 %, in 28 and more on 30 % of 1 group patients. In 2 group the intestinal peristalsis appeared in 20-25 hours in 97 % of cases, and after 28 hours in 3 % of patients. All patients of 1 group had not defecation during 5 days after operation. And were conducted by the additional treatment. In 2 group in 80 % of cases defecation appeared in 3 days. This research showed the good efficacy of intestine preparation for operative interventions with using of Fortrans in gynecological surgery.

DIAGNOSTIC VALUE OF DETECTING PRODUCTS TISSUE DESTRUCTION IN PUERPERAE WITH ENDOMETRITIS AFTER CESAREAN SECTION

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67 puerperae after cesarean section (CS) were followed up. 20 of these were controls in whom the puerperium ran an uncomplicated course and 47 with endometritis after CS were the main group. In addition to the general clinical studies, the pool of acid-extracting components of nucleic acids and medium-mass molecules (MMM) in blood serum and lochia were at least three times measured over the course of puerperium in all examinees. The above substances were denoted products of tissue destruction (PTD). In the controls the levels of PDT in serum reliably increased by days 5-6 and in the lochia were maximal during the first 4 days postpartum; by days 8-9 PDT reliably decreased both in the lochia and serum. In the main group the content of PDT was reliably higher both in the serum and lochia in comparison with the controls. Diagnostic values of the pool of acid-extracting components of nucleic acids and MMM were determined for each day of the postpartum period and the sensivity of each test assessed. The proposed methods for measuring PDT in the serum and lochia permit the diagnosis of endometritis after CS to be made as early as on days 3-4 postpartum. Measurements of PDT in the serum are preferable on days 3-4 postpartum, whereas on days 7-10 investigation of the lochia is more informative.

PROGESTAGENIC ACTIVITY OF NEW ANALOGUES OF 17 α -HIDROXYPROGESTERONE

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Objective: To estimate progestagenic activity of new synthetic compounds - analogues of 17 α -hidroxyprogesterone and their capable to maintain the pregnancy in the rabbits experiments.

Methods: Estrogenized immature female rabbits were administered per os the test substances (0,004-0,5 mg/kg b.w.). The uteri were histologically examined. The progestagenic activity was measured by the extent of secretory changes of the endometrium. Pregnant rabbits were ovariectomized 18 hours after copulation. On the day of ovariectomy and the next 6 days rabbits were injected subcutaneously by the test substances (0,25 mg/kg b.w.). Rabbits were killed on the 7 day of gestation. It was determined the presence of blastocysts in the uterus.

Results: It was shown that the test substances produced significant secretory transformations in the rabbit endometrium. Acetomepregenol, AMOLA are 26 times, phenylpropionate 28 times, butamepregenol 103 times more active then progesteron. It is revealed that test substances maintained pregnancies in all ovariectomized females.

Conclusions: The test substances are progestagens of high activity and may be used for elaboration of new preparations for obstetrics and gynecology.

PATHOGENESIS OF PERINATAL PATHOLOGY IN MOTHERS WITH GENITAL CHLAMYDIA TRACHOMATIS INFECTION (GCTI)

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Objective: To evaluate the state of humoral immunity disturbances in pathogenesis of perinatal pathology in pregnant women with GCTI.

Methods. 48 term neonates and mothers with GCTI during pregnancy composed the main group. 16 healthy neonates and mothers composed control group. Immunomorphological status of placentas was assessed. The blood levels of IgA, IgM, IgG were tested by the method of radial immunodiffusion (Manchini). Circulated immunocomplexes (CIC) were assessed by immunofluorescent (IFA) method. IFA method and western - blotting method measured contents and functional activity of C3 component of complement respectively.

Results. 19 neonates from the main group were healthy (1 subgroup). Perinatal pathology was observed in 29 neonate (subgroup), *C. trachomatis* infection was determined in 6 neonates. Low concentration of IgG, reduced activation of C3 component of complement, high contents of CIC in blood was founded in neonates of 2 subgroup. In placentas of 2 subgroup were exposed fixated immunocomplexes with abundance of C3 component of complement.

Conclusion: Our investigations showed that perinatal pathology in neonates from GCTI mothers is a result of both intrauterine *C. trachomatis* infection and consequences of humoral immunity disturbances of the system "mother – placenta- fetus".

POSTOPERATIVE COMPLICATIONS RISK AFTER MULTIFETAL PREGNANCY REDUCTION

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Objective: *To study postoperative complications risk after multifetal pregnancy reduction (MFPR).*

Methods: *In 1995-99 117 fetal reductions in 90 patients were performed. The term of pregnancy on the moment of operation was from 8w+1d to 13w+6d, in average 10 weeks+3 days. The method of fetal selection was based on fetal biometry data and Doppler investigation of fetoplacental system. 27 sets of quadruplets were reduced to twins and 63 sets of triplets - to twins. Under ultrasound guidance the puncture of fetal thorax was performed in cardial area by means of transabdominal needle 22G and 1-2 ml of 4% KCl solution was injected. The asystolia was observed during first minute after solution injection.*

Results: *Multifetal pregnancy reduction was effective in all cases, no complications were registered. As in other invasive procedures during pregnancy the loss of fetuses continued development after MFPR during 2 weeks is directly connected with the procedure. The fetal loss within next 2 weeks is caused mostly by initial patient state before and during pregnancy. The fetal loss 4 weeks after the procedure is not associated with multifetal pregnancy reduction. In our investigation 2 cases of fetal loss (2,2%) were registered within 4 weeks after MFPR.*

Conclusions: *The results allow to consider that multifetal pregnancy reduction is relatively safe procedure for future pregnancy development.*

TYPE OF PLACENTATION AS A CRITERIA OF FETAL SELECTION BEFORE MULTIFETAL PREGNANCY REDUCTION

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Objective: *to study the possibility of using the type of placentation as a criteria of fetal selection before multifetal pregnancy reduction (MFPR).*

Methods and results: *method of fetal selection before fetal number reduction in multiple pregnancy developed after assisted reproductive technology (ART) was based on estimation of presence of fetal chromosomal diseases ultrasound markers, fetal biometry & Doppler investigation of fetoplacental system. However, sometimes the obstetrical situation requires to find other fetal selection criterias before MFPR. In first case the reduction of diamniotic monochorial twins in quadruplet pregnancy after ART was performed. The diamniotic dichorial twins continued its development after procedure. In the second case the dizygotic pregnancy was diagnosed after ART, it consisted of diamniotic monochorial twins & third fetus which was subjected to reduction. Such kind of selection is based on the risk of development of twins embolization syndrome in which the thromboplastic substance is transferred from dead fetus to alive one resulted in DIC syndrome and/or cerebral insults in fetus with consequent severe neurological outcomes.*

Conclusions: *so, the type of placentation in multiple pregnancy can be used as a criteria for fetal selection before multifetal pregnancy reduction in the purposes of decreasing the levels of perinatal morbidity and mortality.*

EFFECTS OF ENDOMETRIAL THICKNESS AND UTERINE BLOOD FLOW ON IVF OUTCOME

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Objective and methods. Research was undertaken aiming at determining what effect the condition of the endometrium on the day of the HG injection has on the results of the IVF.

The research included: a multi-faceted statistical analysis of the results of 271 cycles of IVF; prospective complex research of the ultrasound characteristics of the endometrium and Doppler indicators of the blood flow in the vessels of the uterus (56 patients); and retrospective analysis of the process and outcome of 265 IVF pregnancies.

Results. It was established that within the IVF program, 70% pregnancies occurred when the thickness of the endometrium on the day of HG injection ranged from 9-12 mm. The thickness of endometrium significantly influenced the frequency of the occurrence of pregnancy, the frequency of implantation and that of multiple-pregnancies ($F=14,0$; $p,0,001$)

The lowering of the pulsation index (PI) indicators, and the intermittency or a absence of the final diastolic flow rate in spiral artery before the HG injection, signify a poor prognosis for the occurrence of the pregnancy in the IVF program

In the group of patients with an endometrial thickness of less than 8 mm on the day of HG injection, the frequency of ectopic pregnancies (8,3%) and the frequency of early term spontaneous abortions (27,2%) were 3,5 times higher than the patients with an endometrial thickness of over 8 mm (2,4% and 7,8% respectively).

Conclusion. The thickness of the endometrium and adequacy of Blood flow in the uterine vessels are the factors which determine the results of the IVF program and influence the outcome of IVF pregnancies.

THE INFLUENCE OF CHRONIC STRESS ON THE COURSE OF PREGNANCY AND LABOR OF WOMEN WITH DEFICIENCY BODY WEIGHT

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Objective: To investigate the influence of chronic stress on the course of pregnancy and labor of women with deficiency body mass.

Methods: The comparison analysis of the course of pregnancy and labor was carried out between women in group I and group II. 51 women in Tadjik Republic (in the period of 1991-93 years) with deficiency body mass (DBM) were observed during war time (group I) and 50 women with DBM were observed in D. O. Ott's Institute of Obstetrics and Gynecology in 1998.

(group II). The starting body mass (BM) before the pregnancy of women in both groups was compared in relation to Brock's index. The body mass of investigated women was reduced by 15% or more in respect to an ideal BM.

Results: The course of pregnancy at women with DBM in both groups was characterized by increased frequency of high risk abortion, anemia of the mothers, premature labor. Peculiarities during the course of pregnancy in conditions of chronic stress were more frequent ($p<0,01$) development of chronic placenta insufficiency in $39,2 \pm 6,8\%$, labor of full-term children with below-average (<3000 g) body mass in $61,9 \pm 10,6\%$ in comparison to indexes of group II - $14,0 \pm 4,9\%$ and $25,0 \pm 6,5\%$ accordingly. The violation of hemodynamics in functional system mother-placenta-fetus (FSMPF) was noted in 68,7% mainly in material-placenta circulation in women with DBM.

Conclusion: Chronic stress in women with DBM, which was brought about by war activity, leads to an increase in frequency of labor of children with small body mass. This increase may be linked with violation of hemodynamics in FSMPF.

LEVEL OF MAGNESIUM IN THE MATERNAL SERUM, THE UMBILICAL SERUM AND IN THE AMNIOTIC FLUID

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Objective: to explore the level of magnesium in the maternal serum, the umbilical serum and the amniotic fluid in the third trimester of pregnancy and during the C-section.

Method: the level of magnesium was measured with tintometer method, without deproteinisation, by means of the reagents (Olvex diagnosticum).

Results: 25 pregnant women at 26 weeks to 40 weeks gestation, aged from 18 to 40 years old, 13 suffered IDDM, 14 suffered H.P.O., 9 suffered placental insufficiency, 5 suffered urogenital infection, 1-suffered NIDDM, 1-suffered gestational diabetes. The concentration of magnesium in the umbilical serum and amniotic fluid in comparison with the concentration of magnesium of the maternal serum varies differently. Correlation gravida-fetus decreases in 31,5 % ($0.69 \pm 0.04 \text{ mmol/l}$), increases in 26.4 % ($0.55 \pm 0.04 \text{ mmol/l}$) $P < 0.06$ women. Correlation gravida-amniotic fluid decreases in 80 % ($0.785 \pm 0.03 \text{ mmol/l}$), increases in 15 % ($0.573 \pm 0.27 \text{ mmol/l}$) $P < 0.01$ women. Correlation fetus-amniotic fluid decreases in 64.2 % ($0.76 \pm 0.031 \text{ mmol/l}$), increases in 7.3 % ($0.56 \pm 0.035 \text{ mmol/l}$) $P < 0.001$ women.

Conclusions: the reliable decreasing of magnesium concentration in umbilical serum, and amniotic fluid was determined in comparison with the magnesium concentration of the maternal serum.

DIFFERENCES IN THE PATHOGENESIS OF THE UTERINE CERVIX CANCER

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Objective: The purpose of the research was the analysis of a number of factors, characteristic for an arrangement of the uterine cervix cancer in exocervix or endocervix for a substantiation of a hypothesis about pathogenetic heterogeneity of this disease.

Methods: The retrospective analysis comparing 505 patients with uterine cervix cancer (I-III clinical stage) treated in Prof. N.N.Petrov Institute of Oncology was performed. Women aged from 20 to 75 years old received surgical or combined treatment. The statistical analysis of endogenous (associated with endocrine-exchange pathology) and exogenous (the reproductive function intensity, smoking, background diseases of the uterine cervix) factors is carried out depending on localization of tumor in exocervix or endocervix.

Results: For localization of a tumor in endocervix (both for squamous cell and adenocarcinoma) the association with the factors connected to endocrine-exchange violations, such as myoma, ovarian stromal hyperplasia, genital endometriosis, hypertonia, fattens, diabetes is characteristic. The cancer of endocervix more often meets in patients of menopausal age. The cancer of exocervix is connected with young (reproductive) age of patients and exogenous factors, such as background diseases of the uterine cervix, smoking, intensive reproductive function, sexual activity.

Conclusion: The received data allow to put forward a hypothesis about pathogenetic heterogeneity of the uterine cervix cancer and various variants of its development in dependence on localization of the tumor.

NEW METHOD OF DIAGNOSIS AND TREATMENT OF RESPIRATORY DISORDERS IN NEONATES

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Objective: To investigate the possibility of using capnography for pre-clinical diagnostics of pathophysiological mechanisms of respiratory disorders.

Methods: We assessed peculiarities of capnogram (C) in 35 neonates with gestational age 32 – 34 weeks (n=15), 35 – 37 weeks (n=16) and 38-40 weeks (n=4) with respiratory disorders during the first 2-3 hours of life. The data were analysed taking into account functional state of central nervous system (CNS) and cardio-vascular system.

Results: We distinguished 3 types of C. depending on the presence of alveolar plateau: alveolar plateau is present (1), alveolar plateau is absent (2) and alveolar plateau is interrupted by sighs (3). There percentage was changed, particularly increasing of 2 type reflects functional disorders of CNS. End-tidal concentration of CO₂ reflects disorders of lung function due to alveolar ventilation (CO₂ > 5,0 vol%), lung hemodynamics (CO₂ < 4,0 vol%) or both (CO₂ < 3,2 vol%). Individual choosing of oxygen therapy using these data helps to decrease severity of respiratory disorders.

Conclusion: Monitoring of C should be used for assessment of severity and main pathophysiological mechanism of respiratory disorders for optimisation of respiratory therapy in neonates.

PECULIARITIES OF DAMAGE OF CNS FUNCTIONAL STATE AND CEREBRAL HEMODYNAMIC AT THE CHILDREN WITH CONSEQUENCES PERINATAL ENCEPHALOPATHY

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Influence of natal cerebrospinal traumas on ischemia of a developing brain, especially under action press is known. The special importance is given to infringements circulation vertebrobasilar region (VBR). Changes of CNS functional state (on data EEG) at disturbance cerebral hemodynamic (on data rheoencephalographie) in VBR and carotid artery region was investigated. We investigated 92 children in the age from 5 to 9 years (mean 7,0±2,1) with the complaints to head pain, parasomnia, tiredness and difficulty in training. The 2 groups the surveyed children among with moderately expressed (I) and sharply expressed (II) by changes of bioelectrical activity, mainly in parietal-occipital (P-O) and posterior temporal (T5, T6) areas of a head brain are allocated. In the first group (10 person) in the specified areas dominated hypersynchronous alpha-rhythm (frequency 8-10 Hz, amplitude up to 100 mkV). For the present group the moderate decrease of amplitude intracerebral pulse waves (AIPW) in VBR on rotation of a head on 30-40 %, from reference values with 0,1 on 0,17 Om was characteristic at safe reactivity of microvessels of a channel on delay of breath at 90 % of the children. The second group (15 person) differed by instability of a functional state with alternation alpha-rhythm and theta-waves (4-6 Hz, 80-120 mkV). Such instability is found out at sharply expressed (up to 45-70 %) decrease AIPW in VBR on rotation of a head. In 67 % of cases was marked as non reaction of microvessels of a channel on delay of breath. This groups was united by relative safety AIPW in VBR in limits of norms for ages and increased tonus of vessels in carotid arteries region and VBR. Thus at 30 % of the children both groups were decreased AIPW up to 0,1-0,12 Om (N=0,15-0,17 Om). Received data allowed to connect a degree of changes of a cerebral cortex functional state and cortical-subcortical relations with depth of infringements cerebral hemodynamic for the account compression influences in system spinal and basic arteries at the children with consequences perinatal encephalopathy.

ALTERNATIVE DELIVERY (RESULTS AND PROSPECTS)

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The purpose of our study: summarizing the results of an operating delivery for last 20 years. During last 20 years in Russia the frequency of cesarean section under the perinatal indications was increased almost twice. However, analysis, conducted by us, has not revealed a correlation between frequency of an operating delivery and both levels of perinatal mortality and morbidity. But the excessive enthusiasm by cesarean section has resulted in «rise in price» of an obstetric aid, impairment of professional skills and also considerably has increased number of the women with a uterus scar. The long-term scientific researches, conducted in our institute, have shown, that a reserve of a decrease of frequency of cesarean section without increase of perinatal mortality and morbidity is antenatal protection of a fetus and rational management during labor for the pregnant women with an obstetrics and extragenital pathology.

ULTRASONIC PREDICTORS OF A CONDITION OF A FETUS AND NEWBORN FOR THE PREGNANT WOMAN WITH INSULIN-DEPENDENT DIABETES MELLITUS

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For 140 pregnant women were conducted an ultrasonic fetometry and research of a fetus hemodynamics. The following results were obtained. In different terms of gestation we have found the changes of umbilical artery blood flow velocity in 92 % of cases and in an fetal aorta - in 80 % of cases and these values exceeded on 15-30% of the control values. By most typical predictors ($p=0,004$) for birth of newborn in a mean gravity condition were: systolic-diastolic ratio in umbilical artery $> 2,8$, systolic-diastolic ratio in fetus aorta $> 5,6$. Glycemia level within 6 weeks before research was $< 8,0$ mmol/L and the level of a glucosuria exceeded 22 g/day. Characteristic ($p=0,0014$) predictors for birth infants in heavy condition were: fetus BPD < 30 percentile level of a population and/or systolic-diastolic ratio in umbilical artery, systolic-diastolic ratio in fetus aorta $> 5,6$, thus the level of a glycemia exceeded 8,9 mmol/L. In group with decreasing of BPD < 20 percentile and DA < 30 percentile level and detection of a zero or negative diastolic component of blood velocity in fetus aorta we have observed perinatal loss of a fetus or newborn. in 83% cases ($p=0,006$). Thus, ultrasonic dynamic control and compensation of hyperglycemia can help to improve perinatal results with early predicting of poor fetal outcome.

THE OPTIMIZATION OF ANESTHEZATION IN GESTOSIS PATIENTS DURING LABOR

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With the purpose of optimization of anesthetization in gestosis patients during labor the parameters of central hemodynamic and cerebral blood flow has been investigated. The patients has been compared in anesthesiology methods during labor and deviated in 3 groups. The 1 group included 27 patients with easy forms of gestosis, where intravenous interdiction of promedol has been used as anesthesia. The 2 group included 22 middle current gestosis patients with easy forms of gestosis, where intravenous continuous interdiction at calipsol 0,02 mg/kg of weigh during minete has been used as anesthesia. The 3 group included 46 haid current gestosis patients, where epidural anesthesia. The impedance rheocardiografy by Kubicek method and impedance rheoencephalography by Paleev has been used. Patients in 1 group before promedol had hyperkinetic type of blood circulation, cerebral blood flow has been sufficient. Patients of the 2 group outside of contraction previa these patients had hypocynetic type of blood circulation and the reduction of cerebral blood flow. During contraction previa these patients had the increase of cardiac evaluation volume, but angiospasm phenomenon presented even in the cerebral blood flow and cerebral vessels and has been sufficient. Patients of the 3 group had hypocynetic type of blood circulation. During anesthesiology methods the most favorable parameters of hemodynamic presented in 1 and 3 group where the volumes of average dynamic pressure and cerebral blood flow achieved normal parameters. Peripheral angiospasm in 2 group patients has not differed during labor. We recommend promedol anesthesia in-patients with easy forms of gestosis and epidural anesthesia in-patients with hard gestosis.

SURGICAL CORRECTION OF STRESS INCONTINENCE

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Objective and methods: 126 patients were operated for stress incontinence since 1994 using different methods of surgical correction: Ls Burch - 62 patients, Ls MESH - 39, by Pereyra - 11 and Min. Sling -14. In 102 cases surgical correction of urine incontinence were performed together with surgical treatment of pathology of internal genital organs including genital descent. The surgical method varied according to the type of urine incontinence, the age of the patient and the presence of internal genital organ diseases. In type I urine incontinence (by McUuir) among patients of mean age group the best operation was Ls Burch, in the older age group - Pereyra. Among patients of the mean age group with type II urine incontinence - Ls MESH vaginopexy, in older patients - operation Pereyra. Colporraphy was done according to indications. In type III incontinence the min. sling operation was carried out.

Results: Through the use of the above chart for the surgical treatment of urine incontinence 92 % excellent and good results in a 4 year follow up study was achieved.

Conclusions: Operation Burch cannot be the «golden standard» in the surgical correction of stress incontinence. In the presence of incontinence with genital organ descent another type of operation for pelvic floor reinforcement is necessary.

TERMINATION OF MIDGESTATION PREGNANCY USING LAMINARIA OR INTRACERVICAL PROSTAGLANDIN E(2) FOLLOWED BY PROSTAGLANDIN ANALOGUES

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Objective: The optimal regimen of medical termination of the second trimester pregnancy is still under development, but it likely to be characterized by a short induction-to-abortion interval, low incidence of side-effects and high acceptability.

Methods: We conducted a prospective, randomized trial to evaluate the efficacy and safety of prostaglandin E_2 and F_2 alpha analogues intramuscular administration for second-trimester abortion in women intracervically pretreated with prostaglandin E_2 (dinoprostone) gel (was given 12 hours before the intramuscular administration of prostaglandins) or one or more medium-thick laminaria tents (were used in a single application for 12 hours).

Results: 250 women requesting termination of second trimester pregnancy were randomized into 4 groups depending on different drug combinations. The mean age and parity of the women and the mean gestational age of the 4 groups were comparable. The median abortion interval was 8.2 hours and the cumulative abortion rates at 24 h was 95%. The total dose of the prostaglandins required to induce abortion and the incidence of side effects or analgesic requirement were significantly less due to cervical priming.

Conclusion: Combination of dinoprostone or laminaria priming of the cervix prior to the synthetic prostaglandin administration is an easy, practical, reliable and safe method of pregnancy termination in mid-gestation.

RESULTS OF RANDOMIZED CONTROLLED TRIAL OF LEVONORGESTREL VERSUS THE YUZEPE REGIMEN OF COMBINED ORAL CONTRACEPTIVES FOR EMERGENCY CONTRACEPTION

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Objectives. Randomized double-blind investigation has been carried out in 21 centers of the World comparing levonorgestrel with Yuzpe regimen of combined oral contraceptives for emergency contraception.

Methods. 1998 women with normal menstrual cycle, not using hormonal contraception and requesting emergency contraception were enrolled in the study. Women administered levonorgestrel (0,75 mg, repeated the same dose 12 hours later) or combined oral contraceptives (ethinylestradiol-100mg + levonorgestrel 0,5 mg repeating the same dose 12 hours later) within 72 hours of unprotected coitus.

Results. The outcome was unknown for 43 women. Among the remaining 1955 women, belonging to levonorgestrel group, the pregnancy rate was 1,1 (11/976), as for the women belonging to combined oral contraceptives group -32% (31/979). Nausea and vomiting among the women of levonorgestrel group occurs rarely in comparison with the group of combined oral contraceptives -Yuzpe regimen ($p=0,01$).

Conclusions. The levonorgestrel regimen is better tolerated and more effective than the standard Yuzpe method in hormonal emergency contraception. With either regimen, the earlier the treatment is given, the more effective it seems to be.

INFLUENCE OF MILDRONATUM ON THE "MOTHER-PLACENTA-FETUS" SYSTEM CIRCULATION WITH DIFFERENT DEGREES OF ITS DISORDER

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Objective: Investigation of the influence of Mildronatum on hemodynamics in the "mother-placenta-fetus" system with different degrees of its circulatory disorders in 21 women in the III trimester of pregnancy.

Methods: Dopplerometric study of the blood flow was performed in the umbilical artery (UmA), middle meningeal artery of the fetus and uterine arteries (UtA) before and after infusion 10 % solution of mildronatum in a dose of 5,0 ml.

Results: Administration of mildronatum at the I (SDR FVW UmA=3,98±0,21; IR = 0,74±0,01) and II (SDR FVW UmA = 4,1±0,29; IR = 0,75±0,01; SDR FVW UtA = 2,87±0,35; IR = 0,63±0,03)) degree of the blood flow disorder resulted in normalization of feto-placental blood flow in the UtA by 9 % with the II degrees of the disorder. A reliable decrease of SDR FVW in the UmA was observed (SDR FVW UmA = 7,18±1,52; IR = 0,83±0,04, SDR FVW UmA = 4,44±0,79; IR = 0,74±0,05 respectively) as well as normalization of the cerebroplacental ratio. Blood flow in the UtA did not change.

Conclusions: Mildronatum exerts favorable influence on pathological hemodynamic changes in the "mother-placenta-fetus" system, and its efficiency is maximum in cases of significant blood flow disorders.

SEXUAL DEVELOPMENT OF GIRLS – SURVIVORS OF NEONATAL SURGERY AND INTENSIVE CARE

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Objective: The study of sexual development of children is an actual task of pediatrics. In survivors of neonatal surgery and intensive care such studies are the initial point in designing the effective and goal oriented programs.

Methods: We've examined 15 girls aged 12-14 years, who underwent reconstructive surgery because of congenital anomalies and intensive care after asphyxia in early neonatal period. We used the method of somatoscopia according to the normal values proposed by I.M.Vorontzov in 1984.

Results: The integral index of sexual development in girls, who underwent reconstructive surgery and intensive care in the neonatal period is 64% lower compared with healthy peers. It's necessary to underline that the retardation in sexual development was more obvious in girls-survivors of neonatal surgery than in those girls, who underwent neonatal intensive care and this difference in retardation gradually increases with age. The data obtained in this study highly correlates with distribution of fat and the amount of lean body mass, and also with work capacity examined by the method of step-test.

Conclusions: Our studies demonstrate the decline of reproductive potential in girls, who underwent neonatal surgery and intensive care and this with no doubt influences their quality of life.

COLOR DOPPLER ASSESSMENT OF THE INTERVILLOUS CIRCULATION IN ALL TRIMESTERS OF PREGNANCY

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Color Doppler sonography can be successfully used for the assessment of the intervillous circulation throughout the three trimesters of pregnancy. The first trimester pregnancies were assessed by the transvaginal route while second and third trimesters pregnancies were evaluated using transabdominal route. Color flow mapping was used for visualization of the outlets of the spiral arteries into the intervillous space and the blood flow inside it. Pulsatile, arterial-like intervillous flow signals and spiral arteries signals were assessed by the use of pulsed Doppler and expressed by resistance (RI) and pulsatility (PI) indices, peak systolic velocity (PSV), end-diastolic velocity (EDV), and temporal averaged maximum velocity (TAMV). Velocities of blood flow of pulsatile signal in the intervillous space increased significantly towards the mid-pregnancy.

After reaching the plateau between 16 and 22 weeks of gestation they remained almost constant until the term. Near the term low-significant decrease of blood flow velocities was noted. The impedance to blood flow within the intervillous space expressed by RI and PI is rather low. The impedance significantly decreases towards the mid-pregnancy and then remains stable. Continuous intervillous flow became stronger and randomly dispersed with advancing the gestation, while the mean peak systolic velocity reached the value of 27.4 cm/s before the delivery. It is our belief that the number of color coded areas represents the formation of preferential blood flow pathways, while increment of blood flow velocities in the spiral arteries and intervillous space accompanied by decrement of the vascular impedance represents the degree of the trophoblastic invasion and lumen widening. During the early pregnancy there were only few color coded areas where spiral and intervillous flow were detected. However, the vascular impedance measured at this site during early pregnancy was quite low and the blood velocities were relatively high. This fact suggests that from its establishment intervillous flow is substantial corresponding to the trophoblast invasion of spiral arteries. After reaching their maximum at mid-pregnancy, by the end of trophoblast invasion, blood flow velocities remain constant until the term. Around the term there is a slight, statistically low-significant, decrease of blood flow velocities. The impedance to flow in the intervillous space, measured in terms of resistance (RI) and pulsatility (PI) indices, is low. It is characterized by significant decrease to the mid-pregnancy. Afterward it remains constant, and there is no significant change until the term. Low resistance is in concordance with the fact that the intervillous space is a voluminous vascular pool which enables the blood to flow on the villi that are freely floating inside it.

COMBINED COLOR DOPPLER AND 3-D ULTRASOUND STUDY OF FETAL ABNORMALITIES

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Considerable progress in sonographic techniques and the introduction of transvaginal sonography in particular have enabled detailed studies to be carried out on early embryonic development. Moreover, Doppler techniques can provide a wealth of information on the physiology and pathology of both the embryonic and the maternal circulation. This non-invasive modality allows analysis of hemodynamic patterns of fetal adaptation to hypoxemia and/or the presence of a severe reduction of oxygen supply to fetal blood and organs. By using this as a second level test in complicated pregnancies it is possible to modulate the characteristics of control and management according to the Doppler findings. Furthermore, color Doppler provides information that can contribute to the improved diagnosis of structural abnormalities of the fetus, particularly the heart defects. Color Doppler is essential to determine the course and direction of the blood flow in great vessels, is helpful but not essential in identifying tiny "jets" in areas of regurgitation from the arterioventricular valves, and finally, it is not essential in diagnosing the majority of anatomical congenital cardiopathies which are generally readily identified with two dimensional ultrasound. Three-dimensional surface view of the fetal body opens a completely new possibilities in the evaluation of fetal anatomy and detection of fetal anomalies. Fetal body or the affected part of the body can be selectively visualized allowing simultaneous visualization of three orthogonal planes. This provides an on-line display of the third plane, which can not be displayed by conventional ultrasound. This diagnostic method enables the sonographer detailed evaluation of the fetal region of interest, step-by-step simultaneously, using a moving cursor marked by lines at the periphery of the field. Later on surface view of the fetal body or region of interest can be produced on the screen. The possibility to make a complete three-dimensional image and to rotate it enables the sonographer to evaluate the malformation in different angles giving clearly "plastic" impression of the anomaly.

This way of the diagnosis is specially convenient in cases of facial deformalities, cleft lip and palate, malformations or malpositions of hands or feet and spina bifida. It is expected that combined and simultaneous use of color Doppler and 3D ultrasound will offer valuable data in the field of fetal monitoring in not so distant future.

ROLE OF A FINE-NEEDLE TRANSVAGINAL ASPIRATION WITH THE CONTROL OF US IN DIAGNOSTICS AND TREATMENT OF OVARIAN CYSTS

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The treatment of ovarian cysts remains one of the main problems in gynecology, the densities of unjustified surgical interventions is still high. The results of treatment 588 patients (average age 38,5 years) which the puncture of ovarian formations under the control of US are given. The indications to realization of intervention were the combinations of an oothecoma to infringements of a menstrual cycle and/or by a pain set of symptoms in the genesial period; with the expressed adhesive process of a small basin after cavitary operations and high risk of postoperative complications; with a serious extragenital pathology in postmenopause. The basic criteria for realization of a puncture (at a level CA-125, not exceeding 35 U/ml), were served with ultrasonic attributes: The presence of unicameral echonegative formation with smooth thin capsula and dorsal effect of intensifying, that was characteristic for cysts (follicular, yellow body, endometrioid, theca-lutein), and also simple serous ovarian cystadenomas. The sizes of formations were 25-142 mm, average diameter of 67 mm. The received material (1-840 ml of a yellow or colourless transparent liquid, on the average - 102 ml) estimated visually with the obligatory cytologic control. US-monitoring was carried out through 2, 6, 12 months after a puncture, and also through 3, 5 and 7 years. The relapses took place in 32,8 % of observations (from them in the genesial period - 27,3 %, in premenopausal period - 38,9 %, in postmenopause - 50 %). For sclerotherapy into a cavity of a cyst entered preparations: alcohol, Iodum, cytostatic Thiophosphamidum in a dose 40 mg unitary. The relapses arose accordingly in 30 %, 37,5 % and 17,7 % of observations, whereas without introduction of preparations - in 34,4 %.

Thus, the strict selection of the patients for treatment with application of noninvasive ultrasonic techniques has allowed in many cases to avoid operative measures. Described tactics has not affected body height of number of malignant neoplasms of female genitalias.

PROPHYLACTIC USE OF LIOTON-1000 IN POSTPARTUM PERIOD IN PATIENTS WITH CHRONIC VENOUS INSUFFICIENCY

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Objective: *To evaluate efficacy of prophylactic use of Lioton-1000 in postpartum period in patients with chronic venous insufficiency (CVI) of lower extremities.*

Methods: *9 patients in postpartum period with chronic venous insufficiency II-III stage were treated by local use of Lioton-1000 gel and 10 patients in postpartum period with chronic venous insufficiency II-III stage treated by conventional methods (compression therapy only) served as control. All patients were matched for age, route of delivery, and severity of CVI. Methods of study included standard questionnaire, clinical condition of lower extremity, CBC and hemostasiogramm.*

Results: *Local Lioton-1000 use for 5-7 days in postpartum period was associated with improvement in subjective sensations and clinical condition of extremities (including edema, eritema, claudication, palpable changes in veins) in 8 of 9 patients (88,9%) against 4 of 10 patients from control group (40%). Unfortunately, one case of Lioton-1000 group was complicated by thrombophlebitis of superficial vein of lower extremity compared with 3 cases in control group.*

Conclusion: *Local use of Lioton-1000 in patients with chronic venous insufficiency is quit effective method for prophylaxis of venous complications in postpartum period.*

PHENOTYPICAL CHARACTERISTIC OF ENDOMETRIAL IMMUNOCOMPETENT CELLS DURING POLYCYSTIC OVARY SYNDROME (POS) HORMONAL THERAPY

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Objective: To prepare the endometrium to stimulation ovulation cyclic hormonal therapy was administered to infertile women with POS: the 1-st group of patients (n=6) received glucocorticoids; the 2-nd group (n=9) received gestagens; the 3-rd group (n=5) received both gestagens and glucocorticoids. Thirteen patients with POS who didn't get any therapy were considered as a comparison group (4-th group) and 5 fertile women became a control group.

Methods: To determine women's endometrial lymphoid and macrophagal cells subpopulations during therapy immunohistochemical assay was performed.

Results: It was observed that CD3 and CD4 levels were reduced among patients of 4-th group compared to women of control group. In comparison with 4-th group, patients of the 1-st group had elevated CD8, CD19; women of 2-nd and 3-rd group had higher levels of CD3, CD4, CD56, CD 14; and those were significantly higher among patients of the 2-nd group.

Conclusions: Gestagens cause the elevation of macrophagal cells and endometrial large granular lymphocytes' numbers, which have a unique ability to control early processes of implantation.

MALIGNANT TUMORS OF FEMALE GENITAL TRACT IN CHILDREN AND ADOLESCENTS

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Objective: Tumors of female genital tract in children and adolescents are shown are rare and have specific morphological peculiarities connected with stages of embryonic evolution of tissues.

Methods: Since 1967 there were 118 cases of female genital tumors at the patients from 0 till 16 years hospitalized in the N. N. Petrov Institute of Oncology.

Results: Among 118 cases - 85,6% were ovarian tumors (64,35% - malignant and 35,65% - benign ovarian tumors), 12,7% were tumors of vulva and vagina (66,7% were malignant), 1,7% - cervical carcinoma. Morphological characteristics of tumors were diverse, but all of vulva and vagina malignancies were embryonic such as rhabdomyosarcoma and have 90% mortality rates. Most ovarian tumors were germ tumors (55,5%); other histological types were founded rarest. 44,6% of malignant ovarian tumors and both cervical carcinomas have exits pessima.

Conclusions: More female genital tract tumors in children and adolescents are nonmalignant, but not very rare cases of malignant tumors cause the majority of pediatric mortality. Alternative approaches should be used for these patients in the future.

PRENATAL DIAGNOSIS OF CHROMOSOMAL DISORDERS IN NORTH - WEST RUSSIA: A SURVEY OF 3440 CASES

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Objective: *our original strategy for PD of chromosome disorders includes analysis of direct chromosome preparations from CVS as the basic step, supplemented with CBL cultures for karyotyping of the fetuses with abnormal or ambiguous CVS results.*

Methods: *3440 cases of cytogenetic PD was performed since 1987, most of them (87%) were represented by CVS. Standard karyotyping with direct chromosome preparations, differential staining (QFH/AcD, QFH/MG), and semiautomatic system for image analysis (ISTA-VideoTest, St-Pb) was applied throughout the study. Conventional analysis was supplemented by FISH and molecular genetic techniques if necessary.*

Results: *Success rate of cytogenetic analysis was 98,8% (CVS II) - 99,3% (CVS I, CBL). Altogether 199 fetuses with chromosome aberrations (5.8%) including 86 heteroploids were found. Out of a total 42 mosaics, only 4 were provided as true ones, and 29 could be attributed to CPM of the type 1. Karyotype discrepancies between CVS and fetal tissues were confined to 3 cases including 1 false-positive case. Not a single false-negative diagnosis was recorded so far.*

Conclusion: *Our karyotyping strategy (direct CVS preparations supplemented with CBL, FISH and PCR) is quite sufficient for reliable PD of chromosome disorders.*

MORPHOLOGICAL FEATURES OF ENDOMETRIAL CANCER: CONNECTION WITH INSULIN RESISTANCE AND TYPE OF FAT TOPOGRAPHY

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Objective: *Insulin resistance was postulated to be a factor which might promote stimulation of tumor growth in endometrial cancer. The main task of this presentation was to evaluate connections of blood insulin level and type of fat topography (as indirect signs of insulin resistance) and morphological features of endometrial cancer.*

Methods: *77 endometrial cancer patients were included in this analysis (61 of them were in postmenopause). Blood insulin and glucose levels, type of fat topography (waist/hip ratio), morphological characteristics of tumor (grade of differentiation, myometrial invasion rate, mitotic index and percent of pathological mitoses) and alcali-induced DNA unwinding (as a measure of DNA strand breakage) in tumor tissue were examined. Statistical analysis was performed by computerized method allowing for means and standard errors and by Pearson linear correlation. The significance level of 0,05 was used throughout the study.*

Results: *Basal and reactive (after glucose load) insulinemia correlated positively with rate of tumor invasion in patients with android type of fat topography and negatively – with histopathological tumor grade in patients with gynoid type. Positive correlation between value of waist/hip ratio, from one side, and invasion rate, percent of pathological mitoses and DNA unwinding in tumor tissue, from the other side, was revealed primarily in postmenopausal patients with body weight excess.*

Conclusions: *Signs of insulin resistance are connected with more advanced endometrial cancer (especially in patients with upper type of fat topography). This fact needs further evaluation for the purpose of better understanding mechanisms of carcinogenesis in uterine body and proposing supplementary methods of prophylactic and therapeutic intervention in the disease.*

METABOLIC CONTROL IN PREGNANT WOMEN WITH INSULIN DEPENDENT DIABETES MELLITUS AND THE NEONATAL BODY WEIGHT

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In order to outline factors affecting the neonatal weight we analyzed the course and outcome of 227 pregnancies in women with insulin dependent diabetes mellitus (IDDM) who gave birth to liveborn babies in 1989-1997 years. Mean age of patients was 24.9 ± 0.3 years, mean duration of diabetes 10.5 ± 0.4 years. In 88 women (38.8%) microvascular diabetes complications were present. The transition from conventional to intensive insulin therapy took place on the average at 13.6 ± 1.2 weeks of pregnancy. The mean blood glucose values were calculated weekly and varied from maximal - 7.4 ± 0.2 mmol/l during the first trimester to minimal - 5.8 ± 0.3 mmol/l - during the third trimester of pregnancy. 11.2% of patients had pregnancy-induced hypertension or proteinuria and 26.4% - preeclampsia (defined as pregnancy-induced hypertension and proteinuria). The mean time of delivery was 36.1 ± 0.1 weeks. Three groups were distinguished according to the neonatal body weight (correspondence to standard meanings of weight and gender for the given gestational age was taken into account): I - infants with low for gestational age birthweight (<25 centiles) - 13 (5.7%); II - infants with appropriate for gestational age birthweight (25-75 centiles) - 52 (22.9%); III - infants with large for gestational age birthweight (>75 centiles) - 162 (71.4%). Mean levels of glycemia during pregnancy were similar in three groups. A negative correlation was observed between the birthweight and the presence of microvascular diabetes complications ($r = -0.34$, $p < 0.001$) and between birthweight and frequency and degree of preeclampsia ($r = -0.38$, $p < 0.001$). We also found a positive correlation between presence of diabetes complications and frequency and degree of preeclampsia ($r = 0.41$, $p < 0.001$). Mean levels of glycemia during first trimester of pregnancy correlated with frequency and degree of preeclampsia ($r = 0.55$, $p < 0.05$). Thus these data suggest that the main factors lowering the neonatal weight in IDDM women are: the presence of microvascular diabetes complications and preeclampsia. The incidence of preeclampsia is connected with the level of metabolic control during the first trimester of pregnancy.

THYROID GLAND FUNCTION AT THE PREGNANT WOMAN WITH DIABETES MELLITUS

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High prevalence (15%) of polyglandular disturbances in patients with diabetes mellitus (DM) were by the basis for analysis of a thyroid gland (TG) function at the diabetic pregnant woman.

Objective: 334 women with insulin-dependent DM (IDDM), 35 women with non-insulin-dependent DM and 56 women with gestational diabetes (GD) were enrolled in the study. The control group consisted of 250 pregnant women without an endocrine pathology and high-gravity complications of pregnancy.

Methods: Serum free and total thyroxine (T4) and triiodothyronine (T3) and thyrotropin-releasing hormone (TSH) levels were measured by automated immunometric assay in terms with 12 for 40 weeks of pregnancy.

Results: We observed the different diseases of TG in 57 pregnant women (13,1%) and most frequently it was the diffuse nontoxic goiter (63,3%). In 16 cases (28%) we have found the chronic autoimmune thyroiditis, and 5 women (8,7 %) had a hypothyroidism and received thyroid hormone replacing therapy. The research of TG hormonal function has demonstrated that the serum TSH levels for the pregnant women with different types of DM tends to increase from second trimester, and this rise was most expressed for the women with IDDM. Patients with DM had the significant decrease of total levels of T3 and T4 during of third trimester of pregnancy compared with control group ($p < 0,05$). The decrease of T4 total levels was more expressed for the women with IDDM compared with other types of DM ($p < 0,05$).

Conclusions: Thus, our results confirm the high incidence of TG pathology among the pregnant woman with DM. The functional hormonal changes during the pregnancy (relative hypothyroxinemia) were most expressed for the women with IDDM, that can be partly connected to metabolic carbohydrate disturbance in this group of patients.

PREVENTION OF RDS IN PREMATURELY BORN VERY LOW BIRTH WEIGHT INFANTS

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Objective: to evaluate the influence of antenatal thyrotropin-releasing hormone and glucocorticoids therapy for prevention of respiratory distress syndrome and for survival rate in group of prematurely born very low birth weight infants ($\leq 1500\text{g}$).

Patients and methods: We evaluated 240 neonates born at the Department of Obstetrics and Perinatology of University School of Medicine in Lublin. The study was carried out on 46 neonates whose mothers receiving antenatal TRH and glucocorticoids (group I). A control group were 194 neonates, whose mothers receiving only glucocorticoids for accelerating fetal lung maturity (group II). Statistical analysis was performed. Baseline and outcome variables were tested with Student's t-test and χ^2 analysis. We need $p < 0,05$ for statistical significance.

Results: Respiratory distress syndrome occurred in 156 premature infants. 84 very low birth weight infants were without respiratory distress syndrome.

Conclusions: Combined use of antenatal TRH and glucocorticoids was associated with a statistically significant ($p < 0.05$) reduction in the risk of respiratory distress syndrome (RDS) in prematurely born very low birth infants. Better survival rate of very low birth infants was observed in the TRH plus glucocorticoids group than in only steroids one. But this difference was statistically insignificant. Further investigations to determine the safety and efficacy of antenatal TRH therapy are needed.

THE NEW POSSIBILITIES OF EXTRAPERITONEAL CESAREAN SECTION APPLICATION

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Objective: to provide the delivery for women with severe septic complications at up to 30 weeks of gestation the extraperitoneal cesarean section was applied.

Methods: as the base of research there were taken 22 women who had delivery by extraperitoneal cesarean section in an urgent way at 24-30 weeks of gestation. 20 of them were primipara and 2 unipara. The average age of the women was $22,3 \pm 0,5$. The grounds for urgent delivery by extraperitoneal cesarean section: 12 women had syndrome of systemic inflammatory reaction after ineffective attempts of pregnancy interruption and 10 women had severe purulent renal lesion with associated urological sepsis at the second term of pregnancy.

Results: in all cases the operations caused no intraoperative complications and the scope of operation was not extended despite its difficulty and the hazard of the further generalization of infection. The operation issue was successful for women. 17 fetus were born dead with extremely little mass (up to 1000g) and 5 neonates were born with little mass (up to 1300g); one of the neonates was antenatal morbidity and 4 of the were taken to the second stage of nursing.

Conclusions: thus, extraperitoneal cesarean section can be considered the most optimum operation in case of septic complications at the different terms of pregnancy and impossibility of normal delivery by way of natural maternal passages.

LAPAROSCOPIC TREATMENT OF UTERINE MYOMAS - LONG-TERM RESULTS AND PREGNANCY OUTCOME

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When uterine myomas are enucleated by pelviscopy (laparoscopy), it is more difficult to find all myomas and to close the hysterotomy than in laparotomy. It has been proposed that later pregnancies are more prone to complications, in particular uterus rupture, and that amelioration of symptoms is inferior. Since 1988, we have performed more than 95% of the myomectomies in our clinic by pelviscopy. In the years 1995-1999, we sent questionnaires to 1143 patients who had undergone an enucleation of uterine myomas at least 2 years previously.

Results: 65% answered the questionnaire. Metrorrhagia had decreased from 31 to 10 %, menorrhagia from 39 to 21 %, hypermenorrhea from 37 to 21 %, dysmenorrhea from 71 to 46%, dyspareunia from 31 to 11%, abdominal pressure from 49 to 22%. 32% of the patients had no complaints other than sterility before the operation. Of the others, 56% found their complaints completely gone after the operation, 35% registered an improvement, and only 9% observed no change at all. Of the patients with an improvement of their complaints, 94 % found that the improvement was permanent. During follow-up (four years on average), 1.8% of the patients had a second myoma enucleation, 3,1% a hysterectomy. 90% of the patients would opt for the same procedure retrospectively, 7% would not, the rest gave no answer to that question. Of the patients who desired to become pregnant, about half were successful: 93 children were born, once twins. There were 51 vaginal deliveries, 41 cesarean sections. The average birth weight was 3440 g. Only two singletons weighed less than 2500 g, none less than 2400 g. The twins weighed about 1300 g each. There were 22 spontaneous abortions (with 8 mature babies later), 3 therapeutic abortions, and two ectopic pregnancies (with one mature baby later). No uterus ruptures was reported. Pelviscopic myomectomy is an adequate alternative to laparotomy in most cases, and it may substitute hysterectomy in many cases.

SPERM MORPHOLOGY AS A RELIABLE METHOD OF MALE FERTILITY EVALUATION

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Objective: The aim of this study was to investigate accuracy of sperm morphology and correlation with IVF rate.

Methods: Accuracy of sperm morphology assessed according to Krugery's strict criteria in our modifications was evaluated by duplicate investigation of 50 samples. The data were analyzed by r_s and t_d . To evaluate stability of sperm morphology the data from 145 observations in 59 patients over 1,5 years were processed by ANOVA. Correlation of sperm morphology with the age of man was investigated by r_s ($n=242$). The effect of Percoll/swim-up semen separation on sperm morphology was assessed by t_d and by multiple regression analysis ($n=57$). To investigate the influence of sperm morphology on the IVF rate comparison of two patient groups with IVF rate less than 33% ($n=29$) or more than 66% ($n=178$) was performed by means of discriminant analysis and results of 160 IVF cycles were subjected to the regression analysis.

Results: It was shown that the results of sperm morphology analysis are accurate (for percent of normal spermatozoa (NS) $r_s=0,98$ $P<0,0001$; $t_d=1,8$ $P=0,1$; for slightly abnormal sperm (SAS)- $r_s=0,83$ $P<0,0001$; $t_d=1,2$ $P=0,2$), stable over time (for NS $F=0,18$ $P=0,9$; for SAS $F=1,0$ $P=0,4$) and not affected by the age of man. It was found that the percentage of NS and SAS significantly increase after the use of Percoll/swim-up preparation technique ($P<0,0001$). The percentage of NS after Percoll/swim-up separation directly correlated with NS in semen ($R^2=0,78$ $P<0,0001$) and does not depend on sperm motility, on total concentration and concentration of motile spermatozoa in the original sample. It was shown that IVF rate increased with the increase of NS ($R^2=0,04$ $P<0,01$) and NS+SAS ($R^2=0,05$ $P<0,008$). Among the combination of factors influenced on IVF rate the percent of NS was the most significant (for NS $F=15,5$; $P<0,0003$; for sperm motility $F=7,1$ $P=0,008$; for motility grade $F=7,0$ $P=0,008$; for SAS $F=3,9$ $P=0,046$).

Conclusion: Our modification of sperm morphology assessment is reliable method important in predicting IVF rate. man age (for NS $P=0,3$; for SAS $P=0,9$) To evaluate stability of sperm morphology its analysis was performed two time in 39 patients, three time - in 13 and four time in 7 patients with interval from 2 weeks to 1,5 years. The data were processed by ANOVA To investigate the influence of sperm morphology on the IVF rate the results of 160 IVF cycles with 6 and more oocytes retrieved were studied and the data were processed by the regression analysis. To reveal the combination of parameters influenced on in vitro fertilization comparison of two patients groups with IVF rate less than 33% ($n=29$) or more than 66% ($n=178$) was performed by the use of discriminant analysis.

GYNECOLOGICAL MORBIDITY OF SCHOOLGIRLS IN IRKUTSK-CITY

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Objective: to study the gynecological morbidity of schoolgirls and to compare it with the data of the other regions.

Methods: profound medical examination of schoolgirls aged 7-15 years ($n=1408$), statistical analysis by the method of calculation of average and relative values, estimate of reliability using t criterion.

Results: 42 per cent of examined children have gynecological diseases. Intensive total index is 86.9 ± 1.2 ; on the nosologic forms: disturbance of sexual development-11.7, anomalies of development and structure of genital organs-13.9, disturbances of menstrual cycle-12.7 inflammatory diseases of genitals-28.0, neuroendocrine syndromes-17.2, pathology of mammary glands-3.6, tumors of ovaries-0.3, cases per 100 patients ($p>0.05$). The structure of gynecological morbidity: the first place-32.3 per cent - inflammatory processes; the second one - 19.8 per cent - neuroendocrine syndromes, the third - 15.9 per cent - anomalies of development and structure of genitals; the fourth - 14.7 per cent - disturbances of menstrual cycle; the fifth - 13.4 per cent - disturbances of sexual development; the sixth - 3.6 per cent - mammary gland pathology; the seventh - 0.3 per cent - follicular cysts of ovary. Inflammatory diseases of genitals take the leading place at the age of 7-12 years and neuroendocrine syndromes take the leading place at the age of 13-15 years.

Conclusions: the indices of gynecological morbidity and its structure differ significantly from the data of other regions of Russia. The gynecological morbidity of schoolgirls in Irkutsk - city is considerably higher than in west regions of Russia and its causes must be investigated.

I. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE - DEVELOPMENT OF THE LUNG

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Despite dramatic improvement in the three past decades in the perinatal care hyaline membrane disease and RDS continue to be a major cause of morbidity and mortality of premature babies accounting 28-70% of neonatal deaths. Immaturity of the lungs is the main predisposing factor for development of chronic lung disease in as many as 20% of survivors. Therefore, maturation of the lungs is still a primary concern for the obstetrician who is taking care of the pregnant women as well, as for the neonatologist responsible for the care of the newborn baby.

Development of the lung. The development of the lung begins in the 24- to 25-day-old embryo as an outpouching of the gut. Up to 16th week of gestation (embryonic and pseudoglandular phases) lung's growth consists of further branching of the endodermal tube into surrounding mesenchyme. By the end of this phase, a total of about 20 generations have developed and the last eight generations being called bronchioles. At 16-17 weeks of gestation canalicular period of lung development begins. The canalization of the primitive airways progresses. Up to 28th week of gestation basic structure of gas-exchanging portion of the lungs is formed and vascularized. However, prior to approximately 23 to 24 weeks of gestation, airway and capillary proliferation are insufficient for gas exchange and this gestational age remains the lower limit for extrauterine survival in most infants. At about 28 weeks penultimate stage of lung development begins (saccular period). There is a marked decrease in the prominence of the interstitial tissue and airspace walls become narrow and more compact with sudden increase in lung volume and surface area. Starting from 36 weeks (alveolar period), true alveoli begin to arise from alveolar ducts and subsaccules become alveoli. At term gestation about 50 million alveoli are present (alveoli increase in number until approximately 8 years of age reaching adult number of 300 million).

Initially the future acini are lined with cuboidal epithelium. By 18 to 20 weeks of gestation granular pneumocytes (type II cells) can be distinguished by appearance of lamellar inclusions. These cells are the site of surfactant synthesis. Flattened membranous pneumocytes (type I cells), the site of gas-exchange, first appear at 23-24 week of gestation

II. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE-SURFACTANT, ASSESS OF LUNG MATURATION

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Surfactant. In 1957 Clements isolated from lung tissue a surface-active material which he called surfactant. It is composed of phospholipid with small amounts of neutral fat, cholesterol, and protein. The primary active molecule is saturated dipalmitoyl phosphatidylcholine. Other components of surfactant, including unsaturated phosphatidylcholine and phosphatidylglycerol, are important in making surfactant more fluid and facilitating re-spreading. Surfactant lowers surface tension by adsorbing to surface and displacing water molecules. In the lung, the presence of surfactant counteracts the tendency of the lung to collapse at the end of breath, allowing a functional volume of gas to remain in the lung at the end of expiration (functional residual capacity). Evidently, surfactant is the crucial biochemical substrate for alveolar stability and gas-exchange in the lungs. **Assess of lung maturation.** Fetal lung fluid is secreted at the rate of 2-5 ml/kg/h. There is a net efflux of fetal lung fluid from trachea into the amniotic fluid, carrying surfactant with it. The concentrations of surfactant components in amniotic fluid increase with advancing gestation. These surfactant components can be directly or indirectly measured in amniotic fluid in order to assess biochemical lung maturity. Lecitin/sphingomyelin (L/S) ratio determination, measurement of phosphatidylglycerol (PG), NBD-PC fluorescence polarization assay, shake test and foam stability index (FSI), and other measurements of biochemical fetal lung maturation are currently available. If a preterm infant was born without prior testing of fetal lung maturity, the early determination of surfactant deficiency can be used to guide rational surfactant therapy. One approach is to measure surfactant components in tracheal aspirates. A quick and noninvasive measurement of lung compliance has predictive values of 97% for RDS and 92% for the lack of RDS, with a sensitivity of 96% and specificity of 94%.

III. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE -COULD WE INFLUENCE THE FETAL LUNG MATURITY?

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Could we influence the fetal lung maturity? Many experimental and clinical studies can give us a positive answer. It is well known that fetal lung maturation is affected by a number of hormones and pharmacological agents, including adrenocorticotrophic hormone (ACTH), glucocorticoids, thyrotropin-releasing hormone (TRH), and tri-iodothyronine (T_3); agents influencing the intracellular content of cyclic adenosine monophosphate (cAMP), such as beta-adrenergic agonists and aminophylline; substances increasing intracellular calcium or acting on protein kinase C, and etc. But the only currently well established agent for improving pulmonary as well as others outcomes for the preterm infant is antenatal glucocorticoid administration. Many of controlled clinical trials confirm that glucocorticoids are indicated in women with preterm labor between 24 and 34 weeks gestation, or after 34 weeks if studies show that the fetal lung is immature, but they must be administered at least 24 to 48 hours before delivery. 12 mg of betamethasone (or dexamethasone) in two doses every 24 hours for 3 consecutive days is recommended. The possibility of combining glucocorticoid with TRH antenatally, with appropriate administration of surfactant replacement at birth, is very promising.

IV. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE -POSTNATAL CARE OF THE IMMATURE LUNG. SURFACTANT THERAPY.

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Postnatal care of the immature lung. There are two principal goals in postnatal care of immature lung: 1) to replace an endogenous surfactant deficit; 2) to maintain adequate ventilation (effective lung recruitment) with minimal damage of the immature lung.

Surfactant therapy. Surfactant therapy, either with synthetic or natural surfactant, is clearly proven to be effective in altering the early course of RDS, in decreasing the requirement for supplemental oxygen or assisted ventilation. Significant clinical benefit is demonstrated by the decrease in pneumothorax, bronchopulmonary dysplasia or death at 28 days, and mortality. Despite an undoubted benefit of the surfactant many questions regarding surfactant treatment remain unanswered. The studies which compare prophylactic administration to rescue treatment of the premature baby do not give definitive answers regarding approach of treatment. Prophylactic surfactant replacement has potential theoretical advantages, i.e. facilitation of initial lung aeration, better initial distribution of the surfactant, decreased alveolar-capillary leakage of serum proteins, decreased barotrauma, and etc. On the other hand, routine prophylaxis of all preterm babies with gestational age 32 or even 28 weeks could constitute a significant overtreatment, i.e. unnecessary intubation of some babies, unnecessary exposure to possible adverse effect of exogenous surfactant, unfounded expenses of treatment. The results from clinical trials which specifically compare single to multiple-dose therapy suggest that multiple dose may be more effective. However, the initial dose, the need for repeat treatment, and timing of subsequent doses remain unclear. The initial dose of surfactant ranges from 50 to 200 mg/kg. Few side effects, i.e. an increase incidence of PDA and pulmonary hemorrhage have been reported. Data from recent multicenter trials of surfactant treatment indicate that infants receiving prenatal steroids had better response to surfactant with regard to overall mortality, respiratory mortality, air leaks, PDA, and intraventricular hemorrhage. These findings emphasize that surfactant replacement should not be considered as an alternative treatment to prenatal corticosteroids.

V. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE – MAINTENANCE OF ADEQUATE VENTILATION

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Maintenance of adequate ventilation. Nasal CPAP (Continuous Positive Airway Pressure) therapy in infants with RDS improves oxygenation, decreases oxygen requirements, reduces the need of intubation, mechanical lung ventilation, and mortality. Earlier application of the CPAP therapy is beneficial. Combination of early surfactant administration with CPAP therapy seems a promising approach to treatment of the tiny baby. Conventional mechanical ventilation remains the principal mode for maintenance of adequate lung ventilation. Despite of the number of disadvantages the mechanical ventilation definitely reduces the death rate of babies with severe RDS. More than that, introduction of a new modes of conventional mechanical ventilation, especially those related with patient-initiated breathing (patient-triggered, synchronized intermittent mandatory, assist control, proportional assisted ventilation) considerably decreased a possibility of lung's barotrauma and development of BPD. Although HFO (High Frequency Oscillation) has some theoretical advantages comparing with conventional mechanical ventilation but the meta-analysis of the controlled clinical studies does not confirm better results of survival or BPD in newborn babies with RDS. More randomized clinical trials have to be done to proof advantages of HFO before this method of ventilation will be recommended for routine use. A promising results are published about combine use of different methods of treatment: surfactant + HFO, HFO + perfluorochemicals, HFO + NO (nitric oxide), and etc.

How best to achieve adequate gas exchange without further inducing lung injury remains the goal of clinicians and researches alike.

VERY LOW-BIRTH-WEIGHT BABIES – PHILOSOPHY OF CARE

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The majority of a very low-birth-weight (VLBW) babies (<1500 g) due to their immaturity need special support and often intensive care. The main problems of the VLBW babies are primarily related to the varying degree of physiological immaturity of several organ functions. These premature infants may be particularly vulnerable to stressful effects of the Neonatal Intensive Care Unit (NICU) environment. In addition, acutely ill premature infants have a little ability to cope with stressful experiences because of their immaturity and lack of physiological reserves.

Ideally every VLBW baby should be born in a tertiary perinatal center with well-equipped NICU. Best transportation of these babies – in uterus of their mother. If it is not possible, excellent neonatal transport facilities should be available.

Well-trained and skilled medical staff should provide care of VLBW infants at NICU. The key idea of the philosophy of care is to minimize treatment as much as possible and to ensure individualized and gentle care of the baby, i.e.:

- Avoid aggressive treatment;*
 - Try to use noninvasive monitoring;*
 - Minimize the number of procedures (no routine sucking, routine postural drainage, routine blood gases, and etc.), always use pain relievers;*
 - Strictly follow general and personal hygiene precautions (hand washing and disinfection!);*
 - Deliberate variations of antibiotics;*
 - Protect from light (cover incubator with blanket, use spot lights) and noise (don't speak loudly, close incubator door gently, and etc.);*
 - Allow "time out" between procedures, examinations and feeding of the baby;*
 - Position the baby in prone or side-lying with boundaries to maintain flexion;*
 - Try to avoid skin injury by thermal, chemical (desinfectants), and mechanical (plasters) agents;*
 - Start enteral feeding as soon as possible using minimal amounts of fresh breast milk;*
- Involve parents in daily care of the baby (treat parents as a partners).*

PECULIARITIES OF NEWBORN ADAPTATION AFTER EXTRAPERITONEAL CESAREAN SECTION DEPENDING ON FETUS CONDITION AND ARID PERIOD DURATION

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Extraperitoneal cesarean section (ECS) is an operation with a high infectious risk case. The important characteristic of ECS outcome is the child's health and adaptation in early neonatal period. We have analyzed the features of adaptation for 56 newborn: 15 - after urgent and 41 - after planned ECS. The X-square statistical criterion was used.

Results. *Fetus with intrauterine disorders (IUD) demonstrate the newborn asphyxia in 73 % cases compared to 33 % without it ($P < 0.04$). The cerebral disorders (CD) meet in children with IUD in 91 % cases against 58 % without it ($P < 0.05$). The 73 % of newborn with IUD need for prolonged nursering, against 20 %, without it ($P < 0.003$). The children without IUD have comparatively short adaptation period in 53 % cases ($P < 0.02$) (in three days they achieved satisfactory condition). The children with IUD need for a rather long adaptation time. The newborn after arid period more than 18 hours have the frequency of asphyxia 77 % compared to 42 % without it ($P < 0.03$), ICD frequency - 84 % against 45 % ($P < 0.02$), FA frequency - 19 % against 59 % ($P < 0.01$). We conclude that, for better fetus health the ECS is selected after arid period less then 18 hours.*

THE ROLE OF IVF IN TREATMENT OF INFERTILE MARRIAGE

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The infertile marriage represent the serious medical-social problem. The development of the modern methods of diagnosis permits to determine the main causes of infertility and to solve the problem of the choice of treatment method in time. The structure and main causes evoking the aphoria on patients of dispensary group in Center of human reproduction, definition of couple's group can be treated by IVF method were the main purposes of research.

827 matrimonial couples with infertility continued in 6,5±0,5 years average were subject to clinical-laboratory analysis. The primary sterility was presented in 53 % of cases, secondary sterility – in 47 % of cases. The tubal sterility was presented in 43 % of cases, endocrine – in 14 %, associative - in 43 %. Hyperandrogyny was presented in 50 %, hyperprolactinemy – in 30 %, polycystosis of ovary – in 22 %. In 21 % was presented the male infertility. The 11 % of examined were sent to laboratory of IVF for treatment (women with tubal sterility, men with oligozoospermia and aspermia). After unsuccessful conservative treatment to 25 % of matrimonial couples were offered the treatment by IVF and ICSI methods. Thus the treatment of infertility by IVF method were prescribed to 36 % of couples with prolonged sterility. The rate of pregnancy in this group composed 22 %.

ENDOGENOUS INHIBITORS OF THE Na,K-ATPase IN PREECLAMPSIA

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Objectives: *Previously we have shown, that mammalian tissues contain a steroidal inhibitor of Na,K-ATPase which is similar to Amphibian vasoconstrictor hormone, marinobufagenin (MBG). The mammalian MBG is implicated in plasma volume dependent forms of hypertension. We compared plasma levels of MBG, in normotensive pregnancy and in preeclampsia with that of ouabain-like compound (OLC), and characterized the partially purified MBG immunoreactive factor from preeclamptic plasma.*

Methods: *Plasma MBG and OLC were measured by solid phase fluoroimmunoassays. MBG- and ouabain immunoreactive materials were partially purified from preeclamptic plasma via reverse-phase HPLC and studied for their ability to react with MBG and ouabain antibodies, and to inhibit the Na,K-ATPase from human mesenteric arteries. Vasoconstrictor effect of authentic MBG was studied in isolated rings of human umbilical arteries.*

Results: *In 11 nonpregnant controls plasma concentrations of MBG and OLC were 0.19 ± 0.04 nmol/L and 0.297 ± 0.037 nmol/L, respectively. In the third trimester of noncomplicated pregnancy ($n = 6$), plasma MBG increased (0.625 ± 0.067 nmol/L, $P < 0.05$), and OLC did not (0.32 ± 0.07 nmol/L). In 15 patients with preeclampsia plasma levels of both MBG and OLC increased dramatically (2.63 ± 0.10 nmol/L and 0.697 ± 0.16 nmol/L, respectively, $P < 0.01$ vs. both control groups). When fractionated by reverse phase HPLC, OLC and MBG were eluted by 18% and 48% acetonitrile, respectively. Serially diluted samples of MBG and OLC immunoreactive material from HPLC fractions reacted with MBG and ouabain antibody in a concentration dependent fashion. Authentic MBG constricted isolated rings of human mesenteric arteries in a concentration-dependent manner. HPLC purified MBG immunoreactive material from preeclamptic plasma inhibited Na,K-ATPase purified from human mesenteric artery similarly to the authentic MBG.*

Conclusions: *Our observations demonstrate the coexistence of a more polar OLC and a less polar MBG-like compound in human plasma. Substantial increases in plasma OLC and MBG immunoreactivity in preeclampsia, along with the vasoconstrictor properties of authentic MBG and Na,K-ATPase inhibitory activity of human MBG immunoreactive factor, suggest, that in preeclampsia, plasma concentrations of MBG are elevated enough to substantially inhibit the sodium pump in cardiovascular tissues. These findings attribute MBG a pathogenic role in the preeclamptic hypertension.*

ENDOMETRITIS AND METROENDOMETRITIS CAUSED BY CHLAMYDIA TRACHOMATIS

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Objective: To study a microbial spectrum at the development of endometritis and metroendometritis in early and late postpartum periods.

Results: At presence *C. Trachomatis* in genitalia of puerperas at the development of endometritis at a first week and in 2-4 weeks after labor more then beside halves puerperas (54,5% and 47,5% accordingly) chlamydia were found as single microorganisms. *M. hominis* at the development of endometritis at a first week after labor were found in 40,9% events, but at the development of endometritis in more late terms this numeral in 7 once less (5,8%). Accompanying bacterial microflora in genitalia of puerperas with postpartum festering-inflammatory diseases at presence *C. Trachomatis* is different depending on a zero hour of diseases. At the development of endometritis at a first week after labor a combination of *C. Trachomatis* and *M. Hominis* were met in 40,9% events, but in combination chlamydia with *E. Coli* in 4,5% events. At the development of endometritis in 2-4 weeks after labor *C. Trachomatis* in combination with *M. Hominis* were met in 5,8% events on different bacterial flora in 47,1% events with the prevalence *Str. "B"* and *Staph. Aurens*.

THE NEONATAL URGENT CARE SYSTEM IN ST- PETERSBURG

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The creation of modern neonatal urgent care (NUC) system of St-Petersburg was started in 1978, when she first neonatal intensive care unit was opened in Children's Hospital #1. Simultaneously, specialized ambulance sub-station #20 was organized, including resuscitative- consulting neonatal teams (RCNT).

Except that, in 1985 within the structure of this specialized ambulance #20 we opened the resuscitative-consulting center (NRCC) and by this way got the ability of neonatal, so called, dangerous conditions (DC) monitoring.

At early 90's the creation of modern hospital resources was started:

- the total bed's capacity of city NICU's increased from 12 to 66
- staff normatives in NICU were changed (1 nurse for such patient, one medical doctor for 3 patients.
- NICU's were supplied by appropriate medical equipment
- modern education of NICU personnel (MD's and Nurses) was made widely including modern neonatal technologies and strategies.

In combination of early evaluation of DC in maternity houses (NRCC) and previously organized neonatal transportation system we got the possibility to change significantly the situation in St. Petersburg.

The great majority (up to 90%) of the most sick neonates are transferred to hospitals during first day of life, and abilities of diagnosis and treatment in the hospital are significantly higher comparing with maternities. The system of NUC gives us the possibilities of putting the concrete situation with each extremely sick neonatal patient and the whole situation in the city under control. All this gives the opportunity to establish the rational management of whole system by City Committee of Health Care. As the result the survival rate increased significantly, at the same time the amount of disabled children, survived after neonatal critical conditions, decreased. The mortality rate in NICU's decreased by two times, early neonatal mortality rate by three times, neonatal mortality rate by 2,6 times, and infant mortality rate by 1,8 times. Neonatal mortality rate in Maternity Houses decreased down to 1% and was almost always connected with non-viable congenital heart malformations.

Further development of NUC is connected with development and using of prospective modern technologies such as synchronized IMV, high frequency oscillatory ventilation, nitric oxide therapy, using of surfactant, intravenous immunoglobulines, ECMO, antenatal evaluation of congenital heart malformation, decreasing the number of neonates of other non-viable malformation, development of neonatal neurosurgery.

THE PREVENTION OF PELVIC INFLAMMATION AFTER INDUCED ABORTION BY ALTERNATIVE MEDICINE

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Objective: The different methods such as medical, physiotherapeutic and others use for prevention of post-abortion complications in modern gynecology.

Method: The method of rehabilitation has been developed in our Centre. This method includes interference-therapy with herbal medicine. The components of herbal medicine were following: *Leonurus quinquelobatus*, *Urtica dioica*, *Salvia officinalis*, *Achillea millefolium*, *Echinacea purpurea*, Flowers of *Calendula officinalis*. This therapy had been used for 30 days in doses 100 ml 3 times day before meal. Interference-therapy had been used every day №5 since first day after induced abortion by abdominal sacral technology by using equipment of «Combi AL».

Results: The 79 women was treated after the first trimester induced abortion by vacuum-aspiration. The ultrasound monitoring had been used before and after operation. The estimation of treatment showed that the duration of vaginal bleeding was 5 ± 1.3 days, the uterine cavity was closely and uterus had normal size after abortion to 2nd - 3rd day. The first menses was ovulatorian by the test of functional diagnostics.

Conclusion: Thus, the using of this method (interference therapy with herbal medicine) reduce the frequency of pelvic inflammation after induced abortion.

HISTOLOGICAL STUDY AFTER ADMINISTRATION OF ESTROGENS AND ACETYLSALICYLIC ACID ON BREAST TISSUE

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Objective: The latest years showed the great increase of incidence of the breast cancer. Simultaneously the agents which play role in neoplastic processes are not clear. We have taken under considerations the fact that the numerous of patients who take estrogen preparations and the preparations of the acetylsalicylic acid is still increasing. We examined the influence of these preparations on the histological structure of the breast. Estrogen hormones are often used by young women as contraceptive preparations and by older women as replacement hormone therapy. The acetylsalicylic acid is a component of many analgetic and antipyretic drugs and it used in prevention of the cardiac infarct and in any other diseases.

Methods: Our examinations were carried out on Wistar Strain rats. The animals were divided into four groups: K - control group, healthy rats - 30 animals; A - animals, which were injected long-term activity estrogens, one time per week for one month, i.m., at a dose of 1,5 mg per 100g of weight of rat - 30 animals; B - animals which were treated with acetylsalicylic acid, one time per day for one month, at a dose of 340 mg per 100g of weight of rat, per os - 30 animals; C - animals which received estrogens and acetylsalicylic acid combined - 30 rats.

Results: On the base of our experiment we can concluded that the therapy of estrogens leads to disturbances of the normal structure of the mammary gland.

Conclusion: The administration of estrogens and acetylsalicylic acid simultaneously may lead to decrease intensity of disturbances of the breast.

MORPHOLOGICAL CHANGES IN PARENCHYMA OF THE LIVER OF RATS DURING LONG-TERM ESTROGEN THERAPY

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Objective. Oral steroid contraceptives were marketed in the United States in 1960s. They became one of the most widely used methods of reversible contraception in developing countries. Oral contraceptives is being used every day by more than 50 mln women around the world for the prevention of unwanted pregnancy as well as by women in replacement therapy. Estrogen replacement offers significant benefits to many post-menopausal women. The benefits and risks as they pertain to each individual patient should be reviewed with her in details. The aim of this study was to establish the influence of estrogen therapy on parenchyma of liver. The first descriptions of a relationship between Replacement Hormonal Therapy (RHT) use and the development of benign hepatic lesions were reported in early 1970s. Histopathologic diagnosis of benign liver tumors has been reported as focal nodular hyperplasia adenoma, solitary hyperplastic nodule and focal cirrhosis. Investigation of the possible relationship between HRT and liver cancer has provoked considerable controversy. Synthetic sex steroids are believed to potentate cholestasis, hypervascularity, microsomal enzyme induction.

Methods. The studies were carried out on 100 Wistar strain rats. The average weight of rats was 250-350 g. The animals lived in cages. The diet was standard. Rats were divided randomly into 5 experimental groups. Group KO-Control group contained 20 rats. Group K1- Control group of 20 rats. We injected i.m. sunflower oil one time per week for 8 weeks at a dose of 0.0015g/1kg weight of rat. Group A-The group of 20 rats. We injected i.m. long-term activity estrogen one time per week for 8 weeks at a dose of 0.00075g/1kg weight of rat. Group B- The group of 20 rats. We injected i.m. long-term activity estrogen one time per week for 8 weeks at a dose of 0.0015g/1kg weight of rat. Group C- The group of 20 rats. We injected i.m. long-term activity estrogen one time per week for 8 weeks at a dose of 0.03g/1kg weight of rat. The specimens of liver were formalinized and stained. The histological asses were determined using the method of Hematoxylin and Eosin and the method of PAS and the method of Masson.

The results of the experiment described above support the following conclusions: 1. The long-term therapy of estrogens courses impairment of the blood circulation in the liver. 2. There is correlation between dose of administrated estrogens and intensifications of changes in parenchyma of the liver.

THE PECULIARITIES OF REPRODUCTIVE HEALTH IN COUPLES WITH PERINATAL LOSSES STIPULATED BY INTRAUTERINE INFECTION

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Objective: to study the state of reproductive health in couples with perinatal losses stipulated by intrauterine infection.

Methods: clinical, immunofermental, immunochemical, spermogram.

Results: chronic endometritis and salpingoophoritis were founded in 43,5% and 32,6% of women of main group ($p<0,001$). The half of men in main group have the chronic prostatitis (51,7%, $p<0,001$). Chlamydiosis was determined in 53,3% of families, L-form of gonococcus - in 22,2%, streptococcus of serogroup A - in 52,3% ($p<0,02$). The oligospermia (18,9%) and astenospermia (43,2%) were established in men ($p<0,01$). The decrease of fertility was determined in 68,7% of women and in 40,7% of men according to the level of SAMG-2 in menstrual blood and in sperm. The average levels of SAMG-2, SAL-1, GSP were considerably decreased and levels of SAL-2 and SSG - increased in comparison with the control.

Conclusions: couples with perinatal losses must be examined and treated before the next child-bearing.

HRT USING IN WOMEN UNDERGONE HYSTERECTOMY WITH OVARIAN CONSERVATION AT THE REPRODUCTIVE AGE

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Objective: *Our purpose was to study the hysterectomy influence (in women of reproductive age) to the ovarian function, lipid metabolism and the possibility to corregate the complaints using HRT.*

Methods: *We studied the hormonal profile (E2, FSH, LH, PRL, P, T), the lipid spectrum (T-C, LDL-C, HDL-C, TG). The patients with hypoestrogenia were proscribed HRT, Estrofem (17 β -estradiol, 2 mg) continuously during 12 months.*

Results: *108 patients undergone hysterectomy with ovarian conservation were examined. The age of women at the surgical treatment was $37 \pm 2,63$ years in average, at the examine time - $43 \pm 3,24$ years. The postoperation period was $6 \pm 2,93$ years. 27% (29) of patients reported the E2 decrease and FSH increase to postmenopausal levels. The lipid complaints (T-C increase mainly for LDL-fraction, the high atherogenec index) were revealed also in this group. The hormonal and lipid profiles were normalized by Estrofem using.*

Conclusion: *The ovarian function is ceasing prematurely (before the menopausal age) in one third of patients, undergone hysterectomy with ovarian conservation at the reproductive age. The metabolic complaints begin to develop with the regard to the grade and the period of time of hypoestrogenia, and represent the atherosclerosis risk factor, coronary heart disease, hypertension disease. The proper HRT using helps to prevent the systemic metabolic changes in these patients.*

PROPHYLOXIS OF UTERINE INERTIC

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We used stimulation of endogenous prostoglandine synthesis for prophylaxis of uterine inertia. There have been used "Lipostabil-forte", wich composed of complex diglycerid ethers of choline phosphotic asid with the prevalence of unsaturated fatty asids that precede of prostoglandine synthesis.

Lipostabil used pregnants threa-tened for uterine inertia from 35 weeks of pregnancy per 1 capsule three times a day for 21 days.

The role of uterine inertia decreases for 8 times and the role of delayed labor decreased for 5 times in the group of patients treated by Lipostabil.

DIAGNOSIS OF PERSISTENT INFECTION PREGNANTS WITH HABITUAL ABORTION

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To diagnose persistent infection we used transcervical chorion biopsy (generally accepted method) with the following bacteriology of biotates of 70 patients with habitual abortion in 8-10 weeks of pregnancy.

As a result of our study we found that microorganisms of Mycoplasmataceae family play a grate role in genesis of abortion. The role of Mycoplasma discovering is $28,4 \pm 5,8\%$. Isolated Mycplasma lesion of chorion was found in $11,7 \pm 4,2\%$ of cases and there was not found Mycoplasma in cervical canal of the uterus that confirm the persistent infection.

Thus, there was revealed a domination role of persistent Mycoplasma infection in patients with habitual abortion.

DAILY MONITORING OF BLOOD PRESSURE OF PREGNANTS WITH GESTOSIS

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We used daily monitoring of blood pressure at 60 patients with gestosis by Meditech – 04 (Hungary) for early diagnostic and control an effectiveness of treatment. Measurement of blood pressure has been made each 15 minutes day time and each 30 minutes at night.

In this time 70% of pregnants with edema had diastolic level of pressure as 90 mm Hg and more in 2 – 3 registered measurement that testily arterial hypertension and requires the hypotensive therapy. The effectiveness of treatment evaluated by decreasing of mean blood pressure (systolic and diastolic) to 3 – 4 mm Hg. Thus, daily monitoring of blood pressure is most informative method of early diagnostic and control the effectiveness of treatment in pregnants with gestosis

SURVEILLANCE AND ETIOLOGICAL STUDIES - A PREREQUISITE FOR OPTIMISATION OF MANAGEMENT OF INFECTIOUS GYNAECOLOGICAL CONDITIONS

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In order to allocate adequate resources for health care of gynecological infections (G.I.), a reliable surveillance program, is mandatory. Also to be able to propose screening programs and to be able to calculate the cost-effectiveness of such initiative (which may even gain money to the society) even in a short term perspective. To be able to recommend therapy in syndrome-based management of G.I. and to propose a reasonable battery of tests to work-up cases consulting with symptoms that can be assumed to be caused by such infections, etiologically studies should be performed at regular intervals in each hospital (or regional) catchment area. General recommendations based on studies performed only some years ago may be non-valid. Rapid changes in the etiological spectrum has occurred in many areas. It is also essential to up-date recommendations on antibiotic treatment. Once such recommendations have been given, it is important that they are up-dated on a regular basis if necessary. Today many out-dated recommendations do exist. Also due to the rapid change in the technology of diagnostic tests it is mandatory that laboratories use tests that are not only optimal in relation to sensitivity and specificity and has an acceptable positive predictive value. That is the test that also works well in populations with a low prevalence of the specific G.I. searched for.

EUBIOTIC PREPARATIONS IN THE FORMING OF VAGINAL MICROBIocenosis IN WOMEN DURING THE PUERPERAL PERIOD

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Objective. *To study a period of the vaginal microbiocenosis recovery in puerperants taking eubiotic preparations (bifidumbacterin and lactobacterin).*

Methods. *50 patients were examined after vaginal delivery who had physiological course of the puerperal period. Daily, for the first six days after delivery, microbiological investigation of vaginal discharge and quantitative determination of lactobacilli, bifidobacteria, corynebacteria, Gram -positive and Gram -negative bacteria was carried out. Microbiological analysis was performed in 16 women who were given bifidumbacterin and lactobacterin per os 10 doses two times a day before meal from the first puerperal day.*

Results. *Restoration of normal vaginal microflora (lactobacilli, bifidobacteria, corynebacteria, a.o. in a quantity of 10^6 CFU/ml and more) occurred on the 5th-6th day. When bifidumbacterin was administered the beginning of vaginal normocenosis was noted on the 4th day. In women, taking lactobacterin, vaginal microbiocenosis began to recover from the third day.*

Conclusion. *The use of eubiotics favoured earlier restoration of vaginal microbiocenosis in the puerperal period.*

LYMPHATIC CYSTS RESULTING EXTENDED SURGICAL TREATMENT FOR UTERINE AND CERVICAL CANCER

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Objective: The study analyzes the incidence and management of postoperative lymphatic cysts.

Methods: The information about 544 cervical cancer patients and 549 patients with uterine cancer who underwent advanced surgical treatment in the department of gynecological oncology of Petrov institute was included.

Results: Outstanding place in the structure of surgical complications hold lymphatic retroperitoneal cysts - 126 cases (11,5%). The patients with locally advanced disease (T2 vs T1), metastatic involvement of the pelvic lymphatic nodes and patient after preoperative radiation are at the great risk of the development of this complication. Its rate was increased in 5 times after dissection of Pirogov - Rosenmuller - Klope node. In patients with no involvement of pelvic regional lymphatic nodes the refusal to remove it significantly decrease the incidence of this complication.

Conclusion: The best way of prevention of cyst development was vacuum retroperitoneal draining and leaving "peritoneal frames" (at the absence of the signs of infection and good haemostatic control). The sonography of the pelvis on day 7-9 after extended surgery is strictly indicated to exclude this complication. Conservative treatment of lymphatic cysts was effective in 71,4% of the cases. The large dimensions of the cysts (more than 8 sm in diameter) need to be treated surgically.

NEOADJUVANT AND SYSTEMIC PLATINUM CONTAINING CHEMOTHERAPY IN LOCALLY ADVANCED AND RECURRENT CARCINOMA OF THE CERVIX UTERI

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Objective: Locally advanced or recurrent cervical cancer is highly responsive to treatment. Radiation therapy is the mainstay of treatment for patients with this cancer. The role for chemotherapy is as yet unproved and is currently under investigation in the management of these conditions. The rationale for neoadjuvant chemotherapy is to induce sufficient tumor response and volume reduction before the tumor vascular supply is compromised by extensive radiation. It is also hoped that it would help reduce and control distant metastases. Also often the only possible treatment available for patients who have recurrent disease or those who present with primary metastatic disease is systemic chemotherapy. The aim of our study was to evaluate the efficacy of chemotherapy in these patients.

Methods and materials: 22 patients with histologically proven primary or recurrent cervical carcinoma were treated with platinum containing chemotherapy in our department. Median age was 49 years, (range 29 – 68). They received mean 2,8 cycles of chemotherapy (range 1-5). 21 patients were available for response. Two women were lost to follow-up for response.

Results: Among the patients with primary cervical cancer who received neoadjuvant chemotherapy and were available for response (9 pts), 7 (78%) showed partial response, 1 (11%) had complete response and one demonstrated stable disease. 56% (5 pts) of all these women underwent surgical treatment after neoadjuvant chemotherapy. Among the patients with recurrent disease 11 were worth for response (all of them previously received radiation treatment), 2(18%) had partial response, 3 (27%) had progressive disease and 6 (55%) of them showed stable disease.

Conclusions: Platinum containing chemotherapy for cervical cancer is very effective as primary treatment. The efficacy of systemic chemotherapy in recurrent patients primary treated with radiation therapy is uncertain and requires more careful study. Our investigation is at the very beginning and it needs more patients for response and survival information to make a serious conclusion.

THE PARAMETERS OF CENTRAL HEMODYNAMICS AND CEREBRAL BLOOD FLOW IN PUERPERAS WITH GESTOSIS

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The parameters of central hemodynamic and cerebral blood flow has been investigated in 40 health puerperas and in 125 puerperas with gestosis. 35 with light degree nephropaty (1 group), 40-with middle degree (2 group), 50-with grave nephropaty (3 group). The investigated has been realized on 1, 2, 3, 5, 8 and 10 days after delivery. In most cases (80%) the delivery was spontaneous, in 20% of cases the delivery was proceed by the cesarean section. The intravenous introduction of promedol has been used in patients of 1 and control groups as anesthesia. The epidural anesthesia (EA) and combinationly anesthesia (EA and endotracheal anesthesia) has been used in patients of 2 and 3 groups. The impedance rheocardiography by Kubicek method and impedance rheoencephalography by Paleev has been used. The investigated parameters show the hypertensive type of blood circulation health puerperas. The patients of the 1 group had the analogous parameters. The cerebral blood flow has been enough. Slight symptoms of angiospasm has been during 2-3 days after delivery and disappeared by 5-8 days. Patients of 2 group has manifested the angiospasm beginnings the 1 day after delivery, cerebral blood flow has been reduced. The symptoms of vasoconstriction disappeared by 7-10 days after delivery. The most significance has been reduced during all 8-10 days after the delivery. The investigated parameters proves the prolonged introduction improving cerebral blood circulation and microcirculation to be expedient.

MORBIDITY OF GYNECOLOGIC CANCER IN ST. PETERSBURG

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Objective: 1600 cases of female genitalia tumors are annually registered in St. Petersburg, 15,8% of all malignant tumors. The most common tumors are cancer of uteri (40,9%), ovary (29,7%) and cervical cancer (22,9%).

Methods: Presented computer data are based on the morbidity, survival and mortality rates of gynecological cancer received from Population based cancer registry of St. Petersburg from 1980 to 1997.

Results: Incidence of cancer of uteri are increased by 79% (from 8,1 to 14,5⁰/₀₀₀₀ standard indices), in all age groups, the most — in group over 70 years old. The average age is 60 year. The absolute index increased twofold (from 320 to 656). Localized tumors were in 73,3%. The 3-survival rates were 69%. Ovarian cancer is registered about 500 cases annually, incidence has varied from 11 to 12⁰/₀₀₀₀ in 1997 — 11,4⁰/₀₀₀₀. The average age is 58 year. The advanced ovarian cancer constitutes more than 75%. The 3-survival rates were 48%. Cervical cancer is registered annually more than 350 cases. Standardized indices decreased from 13,1 to 8,2⁰/₀₀₀₀, but in 1997 there was marked an increasing to 9,5⁰/₀₀₀₀, the most in age 30-40 years. Advanced cancer was established in 48,9%. The 3-survival rates were 59,3%.

Conclusions: Obtained data shows that substantial decreasing of patients with early stages of cancer were resulted from considerable of screening programs in Russia what negative influenced on the survival rates.

PREMEDICATION OF PREGNANT WOMEN AT RISK OF DEVELOPING ABNORMAL LABOR ACTIVITY WITH VASOACTIVE AND METABOLICALLY ACTIVE SUBSTANCES

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Objective: To study the efficiency of Instenon (preparation consisting of 3 substances possessing vasoactive and metabolically active properties: ethophylline, hexobendine and etamivane) used for antepartum preparing pregnant women of a risk group for the development of abnormal labor activity.

Methods: Preparation for labor with Instenon was carried out in 52 pregnant women. The women underwent cardiotocography, hystero-graphy, ultrasonography, dopplerometry and intrapartum fetal ECG. Statistical reliability was determined using Student's t-test.

Results: The administration of Instenon as a means of preparation for labor resulted in an improvement of structural changes of the cervix, a significant decrease in the frequency of abnormal labor activity, total duration of labor, percentage of surgical delivery, maternal traumatism and of blood loss amount in labor. All newborns had high Apgar score (7 to 9).

Conclusions: The experience of clinical using Instenon testifies its high efficiency in the antepartum preparing of pregnant women with the high risk of development of abnormal labor activity.

VENOUS RETURN TO THE FETAL HEART FROM THE FETAL BRAIN

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Objective. To compare venous return from fetal low body and venous return from fetal brain.

Methods. Blood flow waveforms in the inferior vena cava (IVC) and jugular vein (JV) were recorded in 30 normal fetuses at 13-16, 21-24 and 29-32 weeks of gestation (Aloka 2000). The IVC and JV flow velocity waveforms consisted of three components: the first represented forward flow during ventricular systole; the second component represented forward flow, which was coincident with early diastolic fillings; the third component depicted reverse flow reflecting atrial contraction. Time-velocity integral of forward flow (TVI FF) and time-velocity integral of reverse flow (TVI RF) were measured. Percent of reverse flow (%RF= TVI RF/ TVI FF) was calculated.

Results. In fetuses at 13-16 and 21-24 weeks of gestation reverse flow during atrial contraction expressed as %RF, was significantly greater in IVC ($19,3 \pm 6,4\%$; $10,4 \pm 4,9\%$) than in JV ($5,3 \pm 2,5\%$; $6,2 \pm 1,7\%$, $p < 0,001$). In fetuses at 29-32 weeks of gestation there was not different %RF in IVC and JV ($6,2 \pm 1,7\%$ and $5,2 \pm 2,9\%$, $p > 0,10$).

Conclusions. Our findings have suggested that fetal cardiac preload decrease with gestational age. %RF in IVC is greater than one in JV that may reflect special condition for venous return to fetal heart from fetal brain during normal pregnancy.

THE INFLUENCE OF MULTIFETAL PREGNANCY REDUCTION ON VENOUSE CIRCULATION OF INTACTED FETUSES

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Objective: To establish the possible influence of multifetal pregnancy reduction on venouse circulation in fetuses continued their development.

Methods: Doppler investigation of ductus venosus flow indices in 20 fetuses of 10 examined women. The maximal systolic velocity (S), diastolic velocity (D), flow velocity during atrial systola (A) and mean time flow velocity (TAV) were evaluated.

Results: The multifetal pregnancy reduction did not lead to reliable difference between values of qualitative indices before and after procedure: ductus venosus index $((S-A)/S)$: 0.81 ± 0.06 and 0.78 ± 0.06 ; maximal venouse velocity index $((S-A)/D)$: 1.0 ± 0.14 and 0.99 ± 0.14 ; pulsative index for veins $((S-A)/TAV)$: 1.08 ± 0.19 and 1.05 ± 0.12 ; S/A ratio: 8.68 ± 5.74 and 8.76 ± 5.46 ; and systolo-diastolic ratio (S/D): 1.25 ± 0.12 and 1.27 ± 0.14 .

Conclusions: The results demonstrate that there is no influence of this procedure on venouse circulation indices in fetuses continued there development and testify about its relative safety for fetal well-being.

THE USE OF INFRARED LASER IRRADIATION FOR CHRONIC ADNEXITIS TREATMENT

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Objective: to estimate the effectiveness of infrared laser therapy in treatment of a chronic adnexitis.

Methods. From 100 women suffered from a chronic adnexitis 50 (group 1) were treated by intravaginal infrared laser irradiation, gestagenes and antioxidantes. The group 2 (50 women) was treated with antibiotics and anti-inflammatory drugs. A semiconductor low intensive laser «LATON-100» ($\lambda = 760 - 820$ nm) have been used. An exposure was 3 - 5 minutes with energy of 100 mW. The course consisted of 8 - 10 sessions.

Results. Reduction of a pain syndrome was observed in 48 patients of the group 1 and in 26 of the group 2 ($p < 0.001$); correction of the menstrual cycle in 38 and 22 correspondingly ($p < 0.01$); normalization of leukocyte formula in 43 and 36 ($p < 0.1$). Disbacteriose was revealed in 17 women treated by antibiotics and not in anyone of the group 1. After the treatment has been completed 15 women of the 1-st group and 3 of the 2-nd became pregnant ($p < 0.01$).

Conclusion. Infrared laser irradiation combined with antioxidants and gestagenes seems to be more effective method of treatment of a chronic adnexitis than the traditional one. This method should be more widely used for outpatients.

FORMATION OF THERMOREGULATION IN SLEEP STATE IN EARLY HUMAN ONTOGENESIS

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Objective. *Formation correlation between thermoregulation and cyclic state organization in healthy infant and in infants with perinatal pathology were studied.*

Methods. *53 infants (25 healthy, 16 premature, 12 infants of diabetics mothers) were examined. Heat production, rectal temperature, brown adipose temperature, motility and sleep state electropolygraphy were registered.*

Results. *Correlation between thermoregulation criteria and sleep state organization was found in term babies and premature infants of 35-36 weeks gestation from the first day of live. Correlation was absent in infants from mothers with severe diabetes mellitus.*

Conclusions. *Results of investigation showed that thermoregulation in the sleep cycle is disturbed in cases of perinatal pathology.*

THE EFFICACY OF GLYCOSAMINOGLYCAN SULODEXIDE IN THE THERAPY OF VASCULAR COMPLICATIONS IN PREGNANTS WITH IDDM

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Objective. *The use of pathogenetic approach to treatment of vascular complications in diabetes mellitus during pregnancy by low-molecular-heparin therapy.*

Methods. *Sulodexide (Italy) was applied at 15 patients with IDDM in II and III trimesters of pregnancy. Clinical and laboratory parameters, and some parameters of platelet-vessel haemostasis (aggregation activity of platelets, level of von Willebrand factor (vWf) in plasma, quantity of circulating endothelial cells in blood) were studied.. Results of research were processed by a method of variational statistic and by means of the correlation analysis.*

Results. *After treatment with Sulodexide the improvement of clinical and laboratory parameters was marked, the data of outcome of pregnancy for the mother and fetus were better, than in group with traditional methods of treatment. After treatment the authentic decrease of the raised speed and intensity of platelet aggregation was observed in all patients. In case of compensated diabetes and at presence of easy and average degree of gestosis the authentic decrease in blood of quantity circulating endothelial cells and appreciable decrease of a level vWf were marked.*

Conclusions. *Sulodexide is an effective mean of preventive maintenance and treatment of vascular complications at pregnant with IDDM under condition of good compensation of diabetes and at a degree of gestosis, not exceeding nephropathia II.*

THE EFFICACY OF RECOMBINANT FSG OVULATION INDUCTION IN NORMOGONADOTROPIC INFERTILE WOMEN

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Objective: *To study the efficacy of recombinant FSH ovulation induction in normogonadotropic infertile women.*

Methods: *Puregon was used for 24 cycles of ovulation induction in 20 anovulatory infertile women. The average age of them was 28,3 years, lasting of infertility - 3,5 years, average level of I' SG - 5,0 IU/L LG - 10,2 -IU/I, estradiol- 158 pmol/l.*

Results: *The efficacy of ovulation induction were: 40% pregnancy per women and 33% per cycle, that can be compared with the efficacy of hMG treatment. All patients transferred the treatment well. "the frequency of OI-ISS developing occurred in 10%) of cases. We noted no cases of undeveloping or multiple pregnancy. In 25% of women parameters of cycle, induced with Puregon had no differences with normal menstrual cycle - I periovulatory follicle, spontaneous ovulation, and average number of estradiol in periovulatory period - 500-600 pmol/l.*

Conclusions: *Ovulation induction using recFSG has more advantages than hMG. This happens because of the better physiologic parameters for the follicular development and the less risk of complications appearing. The recFSG can be used for ovulation induction in PCOS women.*

FEATURES OF THERMOREGULATORY REACTION OF THE RABBIT FETUS, DEVELOPING IN REDUCED UTERO-PLACENTAL BLOOD FLOW CONDITIONS

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Rabbit fetus with intact (control) and reduced utero-placental blood flow (exsperimental) (mass $39,1 \pm 2$ gr. and $33,5 \pm 1,9$ gr. correspondingly $P < 0,05$) was investigated in the end of its intrauterine development (28-29 days of pregnant) during physiologycal conditions and with myorelaxant (arduan) injection by its.

The results of our researches showed, that 15-minits period of moveless leded to increases of the rectal temperatures from $37,58 \pm 0,33$ to $37,6 \pm 0,21^{\circ}\text{C}$ in control and from $37,35 \pm 0,15$ to $37,48 \pm 0,12^{\circ}\text{C}$ in experimental fetuses ($P < 0,05$) because of the maternal-placental and feto-placental haemodynamic deficiency. The control fetus with injection myorelaxant reacted by tahycardia and increase metabolism of brown adipose tissue, that is characteristic reaction of healthy fetus to adverse changes of environment. Experimental fetus in same conditions show bradycardia and decrease of brown fat metabolism, resulting, probably, by unsufficient development and functional immaturity of this tissue. A fetal movement activity is important in the maintanance of fetuses haemodynamic and temperature homeostasis because of its participation in the regulation of the intensity of bloodflow in the haemodynamic system "mother-placenta-fetus".

CLINICAL AND IMMUNOLOGICAL EFFECTS OF LOCAL THERAPY WITH CYCLOFERON LINIMENT IN PATIENTS WITH VAGINAL INFECTIONS

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Objective: *This communication describes the role of immunotherapy in management of vaginal infectious diseases. We tested the effects of local treatment with Cycloferon-liniment (synthetic interferon inducer, Russia) in patients with vaginal candidosis, nonspecific bacterial vaginitis and bacterial vaginosis.*

Methods: *Intravaginal instillation's with Cycloferon-liniment were given to 50 patients of reproductive age. The results were confirmed by clinical and microbiological laboratory indices as the number of immunocompetent cells - CD 3, CD 4, CD8, CD 20, CD 56, CD 25, HLA-DR lymphocytes, the phagocytic activity of neutrophils and the migration ability of granulocytes. Then we have analyzed the variations in permeability (functional state) of hystohaematic barrier of vagina by integrative data of concentration of albumin, Ig A, M, G in the serum and vaginal secretion. This research was performed twice — before and after the course of therapy.*

Results: *We have found high effectively of the treatment with Cycloferon-liniment both in monotherapy and combinative treatment of vaginal infections: bacterial vaginosis in 96% of cases, vaginal candidosis in 75% and nonspecific bacterial vaginitis in 62%.*

Conclusions: *Was shown the prospectively of use of Cycloferon-liniment as the interferon inducer in the immune-associated treatment of vaginal infections both in monotherapy and in combination with traditional treatment. Cycloferon-liniment increases the permeability of hystohaematic barrier and compensates originally lowered local synthesis of IgG raising its penetration from serum. The accessory effects and allergic reactions are lacking.*

DIAGNOSTIC IMPORTANCE OF UTERAL SONOGRAPHY IN AMENORRHEIC PATIENTS

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Objective: *to obtain the sonographic criteria for assessment of endometrial hormonal reaction.*

Methods: *68 patients with normogonadotropic secondary amenorrhea were observed. Mean duration of amenorrhea was $6,8 \pm 2,4$ year. Estradiol dipropionate 0,1% solution 2,0ml i/m during 2 days was given to stimulate hormonal transformation of endometrium. Ultrasound monitoring of uterus was performed daily. Mean duration of monitoring was $4,4 \pm 1,2$ day. Endometrial thickness and sonographic structure was registered.*

Results: *Menstrual reaction had 12 patients (17,6%) after exogenous estradiol administration. However, prolipherative reaction of endometrium after estradiol treatment was occur in majority of patients 59 (86,8%). Mean endometrial thickness was $0,3 \pm 0,1$ cm. Only 9 from 56 patients failed menstrual reaction on estradiol stimulation, had no increasing in endometrial thickness, detected during ultrasound monitoring. Thus, it became possible to diagnose Asherman's syndrome among that group of patients.*

Conclusion: *Exogenous estradiol administration along with sonographic monitoring of the endometrium appeared to be a useful diagnostic criteria for distinguish the level of lesion in the reproductive system at patients with normogonadotropic amenorrhea.*

EFFICIENCY OF GESTAGENIC PREPARATION "PRIMOLUT" IN THE TREATMENT OF PATIENTS WITH ENDOMETRIAL HYPERPLASIA

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Objective: To study the efficiency of treating dysfunctional uterine bleedings in patients of premenopausal period by Primolut-nor (Germany), each tablet of which contains 5 mg or 10 mg of noretysterone. 74 patients were observed at the age of 40-52 years.

Methods: Histological investigation revealed hyperplastic process of various degree (from proliferation to polyposis) in the endometrium of all patients. Duration of treatment and dose was prescribed individually and depended on the extent of hyperplastic process and concomitant extragenital pathology. In polyposis and active forms of glandular hyperplasia the patients were given Primolut-nor in a dose of 10 mg continuously for 3-6 months, and for the following 7-9 months — by a 22-day scheme (from 5th to 26th day of the cycle). Patients with endometrial glandular hyperplasia received the drug by a 22-day scheme: 10 mg for 7-9 months or 5 mg for 12 months. Patients with endometrial proliferation took Primolut-nor in a dose of 5 mg for 6-9 months. There was no increase in arterial pressure and body weight.

Results: No dysfunctional bleedings occurred during treatment. Data of histological, cytological and ultrasound investigations, performed after the therapy, showed a regression of hyperplastic process in all patients.

Conclusion: The results allow to consider gestagenic preparation Primolut-nor to be effective for the treatment of endometrial hyperplasia in women in the premenopausal period.

METABOLIC EFFECTS OF ORAL CONTRACEPTIVES IN WOMEN WITH INSULIN DEPENDENT DIABETES MELLITUS

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Objective: To evaluate the effects of oral contraceptives on carbohydrate and lipid metabolism and hemostasis in women with insulin dependent diabetes mellitus (IDDM).

Methods: 18 women with were accepted to the study. The mean age of subjects was $29,5 \pm 1,8$ years. The mean duration of diabetes was $12,5 \pm 1,6$ years. Only non-smoking women were admitted to the study. The first group (8 women) received a combination of 0,02 mg ethinylestradiol (EE) and 0,15 mg desogestrel (DSG). The second group (10 women) received a combination of 0,03 mg EE and 0,15 mg DSG. The main study procedures including measurement of glycosilated hemoglobin (HbA1c), fasting total cholesterol, triglyceride, high-density lipoprotein cholesterol, prothrombin time, activated partial thromboplastin time, fibrinogen, activity of factors VII and VIII, antithrombin III activity rates were performed before, after 3 and 6 months of hormonal intake. Low-density lipoprotein cholesterol (LDL-C) and very-low-density lipoprotein cholesterol concentrations were calculated with the Friedewald equation.

Results: There was no significant change in mean HbA1c values at the beginning and at the end of the study in both groups. At the beginning of the study women with IDDM had the increased levels of total cholesterol, LDL-C and triglyceride. The intake of the combination of EE with DSG increased levels of total cholesterol and LDL-C after 3 months in the both groups. Parameters of lipid metabolism were not statistically different at the beginning of the study and after 6 months of the hormonal intake. The intake of two low-dose EE and DSG regimens was associated with the increase of activity of factors VII, VIII and antithrombin III.

Conclusions: The present study demonstrated that use of low-dose contraceptives does not affect lipoprotein metabolism. The use of low-dose EE and DSG is associated with the increased coagulation activity, which seems to be balanced by the increased anticoagulation activity.

MODE OF DELIVERY ACCORDING TO FETAL AND MATERNAL STATUS

M.Nyman, and D.Gross-Witkow

At Danderyd Hospital, the deliveries amount to around 5 000 per year. The delivery department is divided into two sections. In the section for normal deliveries there are six labour rooms. The patients, who go to that part, are carefully selected: women with uncomplicated pregnancies between 38 and 42 weeks of gestation, and a normal start of labour. In the other section, comprising 8 delivery rooms, all other patients are tended to. The midwives alternate between both sections, usually for one year at a time.

The standard surveillance during normal delivery of low risk pregnancies follows the usual routines in Sweden: at admission blood pressure is tested and urine is examined for protein and glucose; temperature is taken if there is a rupture of membranes and CTG - "door test" - is performed. Vaginal examination is performed, and the woman is assessed to be in active labour if the cervix is effaced and open 3cm or more, and she has regular contractions. If all the tests are normal, the woman is followed by examination of the cervical state every 1-2 hours and the results are plotted in a partogram. The midwife examines the fetus by auscultating fetal heart rate every 15 minutes, making sure that there are accelerations and no decelerations. CTG is performed intermittently, and is recommended in the second stage of labour. Before epidural anesthesia is administered, CTG should be performed for at least 15 minutes, and continuously afterwards. In high-risk pregnancies the fetus is monitored more continuously, depending on the diagnosis.

Fetal surveillance by measuring pH is usually performed if there is uncertainty about the CTG. It can be done if the cervix is dilated 2 cm or more and the membranes are ruptured. The measurement of lactate is a more simple method to use, and also cheaper.

Antenatal surveillance of high risk pregnancies usually includes ultrasound for fetal growth, umbilical blood flow in cases of fetal growth retardation, and also if the mother is on medication that can affect the umbilical blood flow. Non stress test is applied daily when the mother is staying in hospital.

At our hospital the over all rate of cesarean sections has increased and is now approximately 17% of all deliveries: 40% planned and 60% emergency operations. — In the high risk pregnancies the rate of CS is 40%.

Induction of labour can be performed at the high risk ward by prostaglandins, but if labour is induced by oxytocin or rupture of membranes, the woman is observed at the delivery ward. Patients with oligohydramnios are surveilled at the delivery ward. The same applies if the woman has a severe preeclampsia and needs intravenous treatment for her blood pressure; in those cases continuous fetal monitoring should be performed.

PARVOVIRUS B19 - A CAUSE OF NON-HYDROPIC THIRD TRIMESTER INTRAUTERINE FETAL DEATH

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Objective: Parvovirus B19 or fifth disease is a common viral disease. Clinical symptoms are rash, fever, and sometimes arthralgia. The virus can also affect bone marrow, liver, and heart muscle. — In pregnancy, the virus can cause fetal anaemia, hydrops, and fetal death, mainly during the second trimester. In a prospective study of pregnant women B19 antibodies were found in 60% as a sign of previous infection. One of the women, with no antibodies for Parvovirus B19, suffered an intrauterine fetal death (IUFD) at 37 gestational weeks (GW). There were no hydropic changes. Parvovirus B19 DNA was found in the placenta and in maternal serum at delivery as well as three weeks before the fetal demise. In Danderyd Hospital an extensive protocol for investigation of IUFD has been in use for many years. By this protocol approximately 45% of the IUFDs can be explained.

Method: Since 1992 all women with IUFD have been investigated for Parvovirus B19, IgG and IgM in maternal serum and B19 DNA in serum and placenta. These tests have been added to the former protocol for IUFD.

During the years 1992-1998 there were 33 759 deliveries including 93 cases of third trimester IUFD at Danderyd Hospital.

Results: Among the 93 cases of IUFD, 7 (7.5%) had detectable B19 DNA in placental tissue. None of the infants was hydropic. No other explanation for the fetal death was found. B19 IgG was positive in maternal serum in 5 cases. In one case seroconversion took place between 2 and 6 months after delivery (when samples were collected); in one case B19 IgG was negative still 8 months post partum.

Conclusion: In all cases of third trimester IUFD testing for Parvovirus B19 should be performed, both serological tests and tests for B19 DNA.

INFECTION AND PRETERM LABOR

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*Preterm birth is one of the greatest unsolved problems in modern obstetrics. It has been showed that intraamniotic infection (IAI) from microorganisms found in the lower genital tract are implicated both in the etiology and in the complications of preterm birth. In Lithuania this problem is particularly severe, since the prevalence of genital and particularly sexually transmitted diseases (STD) is high. At the Department of Obstetrics and Gynecology of Kaunas Medical University Hospital, a tertiary-care perinatal referral center, the studies on preterm labor and infection were performed during period 1992 - 1996. We have shown that IAI and vaginal carriage of *C.trachomatis*, *E.coli*, *Staphylococcus aureus* are associated with an increased risk of PROM-P. These associations remained valid after taking account of other obstetric and demographic variables namely marital status, neonatal sex, previous elective abortions. The presence of one or more of these conditions in late second or early third trimester may therefore be considered predictive of PROM. It was concluded that *E.coli* and *S.aureus* are significantly more prevalent in endocervical cultures from woman in preterm than from those in term labor. Our results demonstrate that in pregnancies with PROM-P cultures from the lower genital tract (endocervix) provide sensitive but nonspecific prediction of IAI. We suggest that clinical management of pregnancies with PROM-P should not rely only on the results of cultures of swabs from the lower genital tract. In our study we have shown that AF culture can identify patients with an increased risk of adverse maternal and neonatal outcome in patients with preterm PROM.*

FUNCTIONAL ACTIVITY OF THYROID GLAND OF WOMEN WITH PHYSIOLOGICAL PREGNANCY AND WITH COMBINATION LATE GESTOSIS

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Objective. *The aim of the work was the investigation of functional activity of thyroid gland of women with physiological pregnancy and the nature of disorders of functions of thyroid gland of pregnant women with late combination gestosis.*

Methods. *Thyroid hormonal status was investigated in 56 pregnant women with chronical infectional-inflammatory extragenital and genital diseases, whose pregnancy was complicated by late gestosis, 36 women had gestosis of light degree and 20 women had gestosis of serious degree. The group under control consisted of 16 women with normal pregnancy. The hormonal tests of diagnostics of function of thyroid gland were used. Serum total thyroxin (T_4), total triiodothyronine (T_3) were radioimmunoassayed in 72 women. The standard sets of medical substances of the firm "Immunotech" (Chekhia). The results are tested by the method of the variational statistics and correlation analysis.*

Results. *According to the results of the investigation of thyroid status in physiological normal pregnancy the function of thyroid gland is stimulated, $T_3 - 2,63 \pm 0,21$ nmol/l, $T_4 - 141,9 \pm 8,41$ nmol/l . Increase of functional activity of thyroid gland was revealed by investigations of indexes of thyroid hormones in women with late combinational gestosis of light degree - $T_3 - 2,81 \pm 0,11$ nmol/l , $T_4 - 154,23 \pm 7,16$ nmol/l . The authenticity of the differences as to healthy pregnant women has not been found ($p > 0,05$). The considerable decrease of content of total triiodothyronine and total thyroxin was marked in pregnant with serious degree of combinational gestosis - $T_3 - 1,04 \pm 0,11$ nmol/l, $T_4 - 66,10 \pm 6,59$ nmol/l . The differences among groups are authentic ($p < 0,05$).*

Conclusion. *Chronical inflammatory genital and extragenital diseases influence on thyroid function and represent unfavorable prognostic criterion of the development of late gestosis. Taking it into consideration women with chronical inflammatory pathology, must be entered into "the group of risk" because of the development of gestosis. Dysfunction of thyroid gland is a marker, confirming participation of endocrine factors in the development of gestosis. Interconnection of hormonal activity of thyroid gland, reflecting , the degree of breaking of compensatory adapted process in the organism of pregnant, so the functional state of the gland is the diagnostic criterion of gravity of gestosis. Taking into consideration above mentioned the functional state of thyroid gland must be used as a criterion of prognosis of flow and outcome of pregnancy.*

REGULATION OF WOMEN'S MILK LIPIDS, PROTEINS, CARBOHYDRATES SECRETION: EFFECTS OF PLACENTAL LACTOGEN, PROGESTERONE, ESTRIOL

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Biological qualities of women's milk promote fast adaptation of born to extrauterine existence. Placental lactogen (PL) influences the receptors of prolactin to support high level of carbohydrates in milk. The synthesis of proteins and lipids of milk is made under the stimulating influence on mamma estriol (E3) and progesterone (PG).

Objective. *To investigate the influence of hormonal activity of the women with late gestosis on concentration of proteins, lipid, carbohydrates in milk.*

Methods. *The concentration of hormones and the qualitative parameters of milk have been investigated with 34 pregnant women with late gestosis in the period of 34-40 weeks, who had chronical infectional-inflammatory extargenital and genital diseases. The group under control consisted of 18 women with normal pregnancy. PL, PG, E3 were radioimmunoassayed in 52 women. The standart sets of medical substances produced by IBOC, NAS of Byelorussia (Minsk) were used. Proteins were investigated by Lowri's method, lipids and carbohydrates - by Lokhem's sets in 3-4 and 6-7 days of the postpartum period. The results are tested by the methods of the variational statistics.*

Results. *According to the results of the investigation of the hormonal status in phisiological normal pregnancy next data are received: PL - 271,2(24,3 nmol/l, PG - 673,23(50,74 nmol/l, E3 -121,12(6,02 nmol/l. The gormonal status of the pregnant women with late gestosis is greatly decreased. The differences between the groups are authentic ($P<0,05$). The qualitative parameters of milk in the group under control in 3-4 and 6-7 days accordingly were: proteins - 23,52(1,24 gr/l and 17,84(1,12 gr/l, lipids - 22,06(0,87 gr/l and 29,32(1,22 gr/l, carbohydrates - 23,12(0,21 gr/l and 33,76(0,32 gr/l ($P<0,05$). The parametrs of milk in the main group in the dynamics of postpartum period accordingly were: proteins - 18,621,14 gr/l and -13,191,06 gr/l ($P<0,05$), lipids - 17,721,34 gr/l and 18,241,15 gr/l, carbohydrates - 20,170,41 gr/l and 19,760,42 gr/l ($P>0,05$). The differences between the groups are authentic ($P<0,05$).*

Conclusion. *In the process of formation of lactation the concentration of proteins is decreased, but the concentration of lipids and carbohydrates is increased with women with physiological normal pregnancy. The investigation of milk of women with late gestosis showed low contents of qualitative ingredients in it. It was caused by low concentration of hormones in pregnancy period. In the dynamic of lactation of the women with late gestosis there is no tendency to decreasing of the content of lipids and carbohydrates.*

CORRECTION OF PATHOLOGIC CHANGES IN THE SYSTEM OF ANTIOXIDANT PROTECTION IN PREGNANTS WITH PYELONEPHRITIS

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Objective. *The purpose of the present work was to reveal changes in the system of antioxi-dant protection in pregnant women with pyelonephritis and clinical features of current pregnancy in conditions of antioxidant therapy (unithiol, ascorbinic acid, tocoferol acetat).*

Methods. *30 pregnant women with chronic and gestational pyelonephritis were examined. Standart clinical, biochemical, bacteriological methods of research were used. The estimation of biochemical parameters of nonfermentative and fermentative parts of antioxidant system were made with a simultaneous estimation of indices of free - radical oxidation. Statistical reliability was determined by methods of variational statistic with the use of Stydent criterion .*

Results. *The analysis of influence of antioxdant therapy on duration of pyelonephritis at pregnant has revealed authentic decrease of terms of hospitalization, strengthening the effect of rutine treatment and both better outcome of labour and the course of postpartum period.*

EXPIRIENCE OF USING ANGIOPROTECTOR GINCOR FORT IN THE OBSTETRIC PRACTICE

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Objective: To study the efficacy of Ginkor Fort ("Beaufour", France) in treatment of chronic venous insufficiency in 40 pregnant with viral and/or bacterial infection in the 3rd trimester of gestation.

Methods: Ginkor Fort was given in a dose of 1 caps a day for 30 days without concomitant therapy. The control group consisted of 20 3rd trimester pregnancy women who didn't get any medication. Besides routine clinical examination blood rheology, metabolic parameters, ultrasonic dopplerometry in popliteal veins of lower extremities were dynamically investigated in all patients. The last indices were compared with ultrasonic data of uterine and fetoplacental haemodynamic. Also, attention was paid to peculiarities of pregnancy, delivery, fetus and newborn's states.

Results: After treatment the high clinical effect of Ginkor Fort was established in the majority (92,5 %) of the patients. It was proved by the improving of pregnant general state with decrease of complaints frequency (4-5 times less) and leg's oedema disappearing. The following positive variations have been estimated during the treatment: oxygenate blood function, blood rheology, ultrasonic parameters of blood flow in popliteal veins and mother-placenta-fetus vessel system.

Conclusion: Changes mentioned above allow to consider Ginkor Fort as an effective drug in the medication of varicose vein disease in pregnancy complicated by viral and/or bacterial infection.

SPECIAL FEATURES OF CHRONIC PLACENTAL INSUFFICIENCY TREATMENT IN PREGNANCY COMPLICATED BY VARICOSE VEIN DISEASE

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Objective: To determine the Ginkor Fort efficacy ("Beaufour", France) in combined treatment of chronic placental insufficiency in pregnant women with varicose vein disease.

Present data analysis shows that chronic placental insufficiency in pregnancy complicated by viral and/or bacterial infection is often accompanied (64,1 %) by chronic placental insufficiency (CPI).

Methods: There were 60 pregnant women examined with lower extremity vein disease. Chronic placental insufficiency mostly due to infection has been diagnosed at the end of 2nd and at the beginning of 3rd trimester gestation. Among them the main group included 40 patients with CPI who were treated by combined therapy with Ginkor Fort 2 caps.bid during 15-30 days. The control group consisted of 20 pregnant women who were given spasmolytics, essential phospholipids, antiaggregant and anticoagulant drugs. Besides routine clinical examination taking complaints into account authors studied the following parameters: blood rheology, acid-base balance, gas blood composition, ultrasonic indices of haemodynamic in vessels of mother-placenta-fetus system and in popliteal veins.

Results and conclusion: It has been estimated that Ginkor Fort is an effective drug in combined therapy of placental insufficiency in women with varicose vein disease. This drug allows to exclude various antiaggregants in therapy and to shorten the term of staying in maternity hospital.

UTERINE SARCOMAS. DIAGNOSTICS AND TREATMENT

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Objective: Sarcomas of uteri are rare tumors, 0,7 cases among 100 000 female population. Developing interstitially tumors is characterized by early and rapid metastatic spread. Than we identified clinical and pathological specialties of diagnosis, treatment, follow-up and prognosis form patients with sarcomas of uteri.

Methods: We analyzed features of 419 patients with sarcomas of uteri which were treated from 1968 to 1995 years at N. N. Petrov Research Institute of Oncology and at St. Petersburg Cancer Hospital.

Results: The average age of patients was 55 years. Leiomyosarcomas (LMS) were in 49,6% cases, endometrial stromal sarcomas (ESS) – in 19,3%, mixed mesodermal sarcomas (MMS) – in 27,5% and in 3,5% cases were observed another types of tumor. Majority of patients with MMS were menopausal (75%) and have changes of metabolism of lipids and carbohydrates such as patients with endometrial cancer. The 5-year survival rates were 42,7%: LMS - 49,5%, ESS - 43,5%, MMS - 32,1%, in early stages – 58,9%, in locally advanced tumors – 12,5%, respectively. The nonfavourable prognosis in LMS was in cases if mitosis activity rises were more then 10%, in MMS – if depth of invasion was more than 10 mm. Hysterectomy with adnexectomy is an equivalent operation in sarcomas of uteri, but in addition to ones with lymphadenectomy in MMS. Postoperative radiation is indicated for all histological types excepting LMS. For all patients are recommended adjuvant chemotherapy with adriamycin.

Conclusion: Our investigations indicate that histological type and extend of disease have a prognostic significance and could influence to diagnosis, treatment, follow-up and prognosis of patients with sarcomas of uteri.

THE INFLUENCE OF FERTILITY PROTEINS UPON LYMPHOCYTE ACTIVATION IN DECIDUA

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Objective: the aim of the present work was to investigate the effect of pregnancy proteins SP-I and (aMGF upon parameters of activation of decidual lymphoid cells in normal pregnancy and gestosis.

Method: The expression of activation markers by decidual lymphocytes of II women with normal and 10 women with gestosis was examined by flow cytometry.

Results: It was found, that in normal pregnancy SP-I increased the expression of CD95 and decreased the expression of CD71 molecules and HLA-DR antigens. In gestosis pregnancy it diminished the expression of CD71, but enhanced the amount of HLA-DR-positive lymphocytes in decidua. Contrary to that, SAMG-2 in normal pregnancy elevated the number of CD25+ and CDIIb+ decidual lymphocytes, but in women with gestosis it down regulated the expression of CD71 and CDIIb molecules.

Conclusions: Thus, it can be supposed that at local level SP-I in normal pregnancy suppressed the late stages of cell activation and enhanced apoptosis processes, while in gestosis it impaired both steps of lymphocyte activation in decidua. From the other hand, SAMG-2 in normal pregnancy induced cell cooperation and decreased it in gestosis pregnancy.

THE BASIC CRITICAL POINTS OF FETAL HEALTH DETERMINED BY MATHEMATICAL MODELING OF ONTOGENESIS PERIODIZATION

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In our earlier study (Gogoberidze N.V., Papitashvili A.M. « School of Fundamental Medicine Journal», 1996, v.2, N 1, 92-93) using mathematical theory of information, we have defined based on the mathematical modeling the informative theory of ontogenesis periodization. There was get answer of equation concerning ontogenesis periodization. Based on this cardinal equation there was get later the definitive formula for determination the critical points of gestation. Using this formula we determined the basic 8 points in prenatal period, most critically for fetal health. All cases are (\pm) 1 day correct and the first day of fertilization is named as a 0 day. The critical days of fetal health are:

5 th day	69 th day	210 th day
18 th day	107 th day	274 th day -
39 th day	154 th day	- time of birth

Determined critical points can be useful in management of pregnancy.

TNF-ALPHA AND IL-1 SECRETION IN MACROPHAGE CULTURES OBTAINED FROM PLACENTAS IN VARIOUS PREGNANCY OUTCOMES

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Objective: *To investigate the role of inflammatory cytokines TNF- α , IL-1 α and IL-1 β in term and preterm parturition at different gestational ages.*

Methods: *Placentas were obtained from nonlaboring women with cesarean deliveries at 21-26 weeks gestation (early preterm), 31-34 weeks gestation (late preterm), and term or from laboring women with spontaneous early preterm, late preterm abortions and vaginal delivery at term. Cell cultures were prepared by dispase-collagenase digestion of placenta tissue and ficoll-urografin density centrifugation. In vitro cytokine secretion was determined with ELISA.*

Results: *In nonlaboring group secretion of TNF- α and IL-1 β increased significantly since early to late preterm (TNF- α from $9,8 \pm 1,8$ pg/ug cell protein to $20,1 \pm 6,9$ pg/ng; IL-1 β from $10,0 \pm 1,4$ pg/ug to $23,1 \pm 2,6$ pg/ug). Increase of IL- α ($30,5 \pm 6,1$ pg/ug vs $17,9 \pm 2,1$ pg/ug) and IL-1 β $30,3 \pm 5,8$ pg/ug level was also observed in term compared with late preterm. TNF- α secretion did not change in term macrophages when compared with late term. Spontaneous laboring activity in early preterm led to 5-20-fold increase of cytokine secretion (TNF- α - $242,1 \pm 39,8$ pg/u-g, IL-1 β - $86,4 \pm 7,0$ pg/ug, IL- α - $204,6 \pm 12,3$ pg/ug). In contrast, in term laboring women we observed no significant changes in TNF- α production ($19,0 \pm 3,8$ pg/u-g) and even decreased IL-1 α and IL-1 β secretion ($13,3 \pm 4,4$ pg/ug and $15,4 \pm 1,6$ pg/ug correspondingly).*

Conclusion: *Early preterm labors (second trimester of pregnancy) are associated with elevated placental cytokine production.*

COMPLEX DIAGNOSTIC METHOD OF PLACENTAL INSUFFICIENCY BY PREGNANT IN GESTOSIS

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Objective: fetus conditions diagnostic optimization by pregnant in gestosis.

Methods: tetrapolar reography, cardiotokography, dopplerometry in system mother-fetus-mother and LASER biofotometry.

Results: 120 pregnant in different level of gestosis and 37 with normal conditions war examined. Revealed that with gestosis there are 75,0% pregnant with hipocinetic and 25,0% with aeucinetic type of hemodynamic. By 96,7% women in gestosis placental insufficiency was diagnosed.

Conclusions: complex method of value conditions of mothers hemodynamic, results of LASER biophotometry, ultrasonic dopplerometry, cardiotokography, biophysics activity of fetus helps in impartial judging of perinatal fetus conditions by pregnant in gestosis, allows in obstetrics tactic determination and conducting therapy differentiation.

USING OF DECAPEPTYL IN IVF PROGRAM

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The main purpose of this research to value the efficacy of the different schemes of superovulation stimulation in IVF program. The analysis of IVF efficacy was conducted to 200 matrimonial couples with infertility. The average age of patients was 32.5 years, the average duration of infertility — 8.5 years. The primary sterility was presented in 34,5 % of patients, secondary — in 65,5 %. The tubal-peritoneal sterility was in 58 % of cases, endocrine — in 10 %, associative — in 32 %. In dependence of the conducted scheme of superovulation stimulation the patients were divided on 3 groups identified on the age, duration and main causes of infertility. The 1 group was formed from the 122 patients received klomifen-citrat and HMG aimed to the induction of superovulation. In the second group (63 patients) the stimulation was conducted by the HMG after preliminary injection of Decapeptyl 3,75 mg (Beaufour-IPSEN International) by the long protocol. In 22 cases before subjecting of HMG preceded the daily injection of Decapeptyl 0,1 mg (3 group). The analysis showed that the number of the ripened follicles was higher by injection of Decapeptyl 3,75 mg (11,85±1,8) and Decapeptyl 0,1 mg (8,54±2,1) opposite to 6,6±1,3 in 1 group. The fertilization was accordingly in 70,2 %, 71,1 % and 58,3 % of cases. The transfer of embryos to one patient was in 1 group 2,9±0,1, in 2 group — 4,2±0,2, in 3 group — 3,6±0,3. The rate of pregnancy in 1 group composed 18 %, in 2 — 27 %, in 3 — 31 %. Thus the best results of IVF program were received in using of superovulation stimulation protocol including the agonists of gonadotrophin-releasing hormone especially of daily form.

THE NEWBORN OF DIABETIC MOTHER

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Objective: *To analyse obstetrical and perinatal outcomes in newborns of diabetic mothers in Perinatal Center for Diabetic Pregnant Women in Lublin.*

Methods: *We have summarised 283 deliveries of diabetic pregnant women in period 1993-1998. The connection of the most frequent complication of perinatal period and class of diabetes, metabolic control and mode of delivery was analysed. The detailed reasons of perinatal mortality in this group of newborns have been discussed.*

Results: *Perinatal mortality in the group of newborns of diabetic mothers was strictly connected with fetal malformations, prematurity and respiratory distress syndrome and infections. No intrauterine death was observed. Macrosomia, hyperbilirubinemia and hypoglycemia were the most frequent complications of perinatal period both in the group of GDM as in PGDM group though a moderate reduction of their frequency could be observed. The ratio of cesarean sections was about 65% in the whole group of diabetic patients. The most important reason for cesarean section was fetus' distress recognised due to very strict perinatal surveillance. The occurrence of congenital malformations was similar in GDM and PGDM patients although GDM was diagnosed usually in second trimester of pregnancy and women with PGDM very rarely were planning pregnancy.*

Conclusions: *1. Pregnancy planning, early and appropriate obstetrical and endocrinological care in specialistic centers could reduce perinatal mortality and morbidity of diabetic mothers' newborns. 2. The screening for GDM detection is necessary in whole population of pregnant women to prevent or reduce the risk of perinatal morbidity.*

LAPAROSCOPIC SURGERY IN OBSTETRICS

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Objective and Methods: *18 patients with pregnancy ranging from 14 to 24 weeks gestation and in the postpartum period underwent laparoscopic surgery during the period 1994-1998. Indications for surgery during pregnancy were: ovarian cysts and benign tumors in 9 cases -cystectomy was done in 7 cases and adnexectomy in 2 cases; in the postpartum period indications for surgery were acute PID-3 (removal of the focus of infection with drainage of the pelvis), acute abdomen -1 and surgical sterilization - 5.*

Conclusions: *Laparoscopic surgery may be the best method of treatment for pregnant patients with symptomatic benign ovarian tumors and cysts at gestation age 16-17 weeks; those with calculus cholecystitis - up to 24-26 weeks gestation age.*

LAPAROSCOPIC SURGERY IN THE PREPARATION OF PATIENTS FOR ASSISTED REPRODUCTIVE TECHNOLOGY

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Objective and methods: *Laparoscopy and hysteroscopy were carried out in 37 patients following unsuccessful attempts at IVF since 1995. The following abnormalities were diagnosed: bilateral salpingitis - 18 cases, external genital endometriosis - 15, endometrial pathology - 10, uterine myoma - 5 and combined pathology - 24.*

Results: *Bilateral salpingoectomy is recommended in patients having large size hydrosalpingitis with inflammatory reaction. This helps in reducing the incidence of unsuccessful cases of ART as well as protects patients from developing a frequent complication of ART - tubal pregnancy. Salpingostomy together with surgical sterilization is the best method of preparing patients for ART in the older reproductive age group with a long history of pelvic inflammatory disease in the presence of salpingitis.*

Conclusions: *Even in the absence of intrauterine pathology by HSG and echography it is recommended to do hysteroscopy with fractional D&C before carrying out IVF; in more than 1/3 of these cases endometrial pathology is diagnosed.*

REHABILITATION OF MALE GENERATIVE HEALTH IN COUPLES WITH REPRODUCTIVE LOSSES WITH USING OF TERMOPULSATION

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Objective: *to investigate the possibility of using of thermopulsation in rehabilitation of male reproductive health in couples with reproductive losses (spontaneous abortion in I trimester of pregnancy, perinatal mortality of child in asphyxia and with rough developmental disorders).*

Methods: *immunodiffusion analysis with specific test-systems.*

Results: *we used thermal pulse influence in 28 men with decreased fertility (in accordance with decreased level of specific alpha-microglobulin-2 - SAMG-2 - in sperm less than 16 mkg/ml) and with the chronic prostatitis (in accordance with the increased level of saliva-sperm globulin - SSG - more than 16 mkg/ml) at the nasal-labial zone every day during 10 days, increasing the time of influence from 15 to 30 minutes. After this treatment the increasing of male fertility was determined in 74,8% of men.*

Conclusions: *using of thermopulsation normalized male fertility.*

THE MODERN METHODS OF EMERGENCY CONTRACEPTION

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Objective: *Efficacy and tolerance of levonorgestrel and combine estrogen-gestagen oral contraceptive regimen of emergency contraception (EK) in fertile women was studied.*

Methods: *We enrolled 120 women age range 15- to 35 (21,0±0,4) requested EK. I group – 60 women used estrogen-gestagen Ovidon, II group used Postinor.*

Results: *The estrogen-gestagen regimen efficacy was 94%, gestagen regimen – 97,3%. Side effects were registered in 23% in the I group and 16% - in the II. The most frequent of side effects were nausea, vomiting, mastalgia, intermenstrual vaginal discharge. The side effects frequency in Postinor regimen was lower than in Ovidon regimen.*

Conclusions: *The gestagen regimen (Postinor) is more effective and well tolerated comparatively to estrogen-gestagen regimen (Ovidon).*

PROCESSES OF FREE REDICAL OXIDATION IN PLACENTA AT PREMATURE LABOR.

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Objective. *To elucidate the importance of free radical processes in the mechanism of pathogenesis of premature delivery.*

Methods. *The intensity of processes of free radical oxidation (FRO) was estimated by chemiluminometric method in human placental tissues.*

Results. *In premature labor at 28-36 weeks of pregnancy an increase of chemiluminescence (Chl) intensity was observed which was accompanied by a rise of TBA-reactive products and by invariable level of modified proteins and a size of middle molecules. The addition of superoxide dismutase (SOD) causes a decrease of the Chl intensity in the norm and in the premature labor. Sodium azide and methionine (inhibitors of SOD-independent generation of oxygen active forms) exert weaker suppression of Chl in placental of women with premature labor then in the norm. The quantity of I_{50} taurine and uric acid in noncomplicated term labor is higher than in preterm ones.*

Conclusion. *In later premature labor there is an increase of FRO processes mainly conditioned by the lipid peroxidation. FRO in the placenta can be realized both by SOD-dependent and SOD-independent mechanism (anion-hypochloride formation), the latter is noted to be inhibited which leads to the weakening of antibacterial barrier between mother and fetus.*

EXTRAEMBRYONIC STRUCTURES AND PERINATAL COMPLICATIONS

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The pathology of extraembryonic structures (ES) (placental bed (PB), placenta, amniotic fluid (AF), umbilical cord (UC)) and their influence on perinatal outcomes remains poorly understood, despite of the priority role they play in maintenance of fetoplacental system (FPS) homeostasis from nidation until delivery. The intensive study of placenta and its insufficiency (PI) in 70-80th was basically dedicated to investigation of its structure and function in II-III trimesters and has not revealed structural and metabolic features of interrelations of physiological and pathological changes of ES and its influence on maternal and fetal status. In this message the results of long-term investigations of adaptational and homeostatic characteristics of ES are submitted. They had included ultrasound screening of 21840 pregnancies, based on mathematical and sonographical modelling; ascertainment of biochemical hormonal and immunological values of AF (242 samples); histomorphological analysis of PB, placenta and amniotic membranes (AM) with use of electronic microscope (118 cases), investigation of their relationship with FPS homeostasis, perspectives of pregnancy outcome prognosis and assessment of therapy effectiveness. Gross deviations in structure and function of the system PB-placenta-AF-fetus were revealed in pregnancies complicated with oligohidramnion. On the basis of the morphological analysis of PB and AM the common structural mechanisms leading to PI and reduction of AF volume were determined. Ultrasonic criteria are postulated for dynamic quantitative analysis of AF volume in normal pregnancies and those complicated with ES pathology. Signs of different forms of structural and functional insufficiency of PB, FM and UC are classified. Diagnostic and prognostic criteria are determined for assessment of ES status. The role of paraplacental exchange route in normalization of AF volume and possibility (through it) of influence on FPS homeostasis, perspective methods of PI treatment (due to ES pathology) are discussed.

NEOADJUVANT CHEMOTHERAPY WITH EPIRUBICIN / CYCLOPHOSPHAMID HIGH DOSE IN LOCALLY ADVANCED BREAST CANCER (T2-T4/NO-N2/M0)

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Objective: *The timing of chemotherapy (CHT) in relation to surgery has recently been the subject of intensive investigations. The response of the primary tumor is a reliable prognostic factor and can in addition be regarded as an "in vivo" chemosensitivity test. Is it possible to achieve a higher rate of breast conserving therapy (UCT) on locally advanced breast cancer by neoadjuvant treatment? The efficiency on the primary tumor and on the lymphatic nodes will be presented.*

Method: *61 patients (pts) with breast cancer primarily not suitable for BCT were treated with 3 cycles of Epirubicin (120mg/m²) and Cyclophosphamid (600mg/m²). To prevent serious neutropenic side effects G-CTS was applied prophylactic. 2-3 weeks after the 3rd cycle surgery was performed. Pathologic evaluation of the tissue followed.*

Results: *After neoadjuvant chemotherapy BCT could be performed in 47 pts. (76%). In 15 pts. a modified radical mastectomy could not be avoided. 45.8 % of the axillary lymphatic nodes that were clinically positive before treatment converted to pathological negative nodes after CHT. Tumor stage was: 2 times ypT0 (3.2%), 3 times ypTis (4.9%), 2 times ypT1 (34.6%), 22 times ypT2 (36%), 6 times ypT3 (9.8%), 5 times ypT4 (4.9%) and 2 times ypTx (3.2%). According to the clinical and histological results, the overall response rate (CR+PR) was calculated: RR=68.9%. Clinical complete remissions were found in 14.8% of all tumors, but complete pathological remission were observed in only 34%. 19 breast cancers (31,1%) showed only less than 20 percent decrease after CHT (Stable Disease, SD), but there were still some patients in (his group who could be treated with BCT.*

Conclusion: *Downstaging of locally advanced breast cancer is possible by neoadjuvant chemotherapy, BCT was enabled in 76%. 68.9% of the tumors responded to this therapy with a reduction of the tumor size of more than 20% I.*

THE MEANING OF NATURAL OESTROGENS IN THE IVF PROTOCOL

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In many respects, the results of the IVF crucially depend on the joint condition of an endometrium and an uterus at the moment of embryo implantation. The influence of the most significant among them, for example, of endogenous oestradiol, may be insufficient. That is what have been confirmed by the results of ultrasound testing. To increase the readiness of endometrium for the embryo implantation and further supplementation of early pregnancy we have used the medicine, analogous of the native oestradiol, EstrofemT (Novo Nordisk, Denmark). We compare the 84 IVF cycles when EstrofemT have been used with another 54 cycles without support by oestrogens. The EstrofemT was nominated starting from the 8-9th day of a menstrual cycle, combining with the protocol of superovulation induction (37 cycles), from the moment of oocyte recovery or embryo transfer (35 cycles) and after the approach of implantation (12 cycles). In those cycles when the EstrofemT was nominated rather early we have seen an essential enlargement of the endometrium thickness at the moment of embryo transfer (11.2 ± 0.3 mm in comparison with 10.4 ± 0.7 mm in the control) and higher pregnancy rate (in 51 cycles from 84 ones, or in $60.7 \pm 0.5\%$ in comparison with 19 of 54 control cycles, or in $35.2 \pm 0.2\%$). The early pregnancy loss has taken place in 11 from 51 pregnancies. 32 patients have progressing pregnancy, mainly of II-III trimesters, 8 women have bore 15 alive children. In the control group, unlike the EstrofemT ones, the total rate of early pregnancy loss and ectopic pregnancy was on the level $31.6 \pm 2.0\%$ (6 of 19 ones), 13 pregnancies are either in progressing state or have been completed by the birth of alive children. Hence our research shows that the results of the IVF program can be significantly improved by including EstrofemT, the medicine of native oestradiol.

NEW APPROACHES TO THE PREVENTION OF VASCULAR DAMAGES AT PERI-POSTMENOPAUSAL WOMEN

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As it's known, vascular system damages are stimulated by the loss of ovarians function. In order to estimate the heaviness of microcirculatory infringements we have investigated primary and secondary hemostasis, anticoagulant blood system and lipoproteins spectrum at 112 patients of the age 42-69 years, who received the assistant hormonal treatment by preparations, registered in Russian Federation (FemostonT, ClimenT, Cyclo-ProginovaT, TrisequensT, CliogestT, etc.). These patients also received the system enzyme therapy by WobenzymT and PhlogenzymT. While the assistant hormonal treatment we have estimated the thrombocytogram, platelets function and other parameters and have discovered a positive influence of the above therapy on the condition of primary hemostasis. However, the results depend on conditional «oestrogen» and «progestagen» phases of drugs reception. The positive effect is strengthened by system enzyme therapy, which can be nominated as together with assistant hormonal treatment, and as separate rates also.

PLASMAPHERESIS AND BLOOD ULTRA-VIOLET RADIATION IN PRE-OPERATIVE PREPARATION FOR CESAREAN SECTION

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Plasmapheresis, being one of the extracorporeal therapy methods, was included to comprehensive preparation of 24 pregnant women for cesarean section operation. Therapy tactics was selected due to according pathology and its severity. Instead of plasma being removed the patients were administered crystalloid solutions. Donor blood drugs (plasma, albumin) were not used.

During plasmapheresis operation some ultra-violet radiation of blood was used in volume 1 - 3 ml/kg of body. Plasma been removed was placed in freezing chamber under 20°C within «Hemalcon» containers - 300-500 ml. 2 - 3 days before the operation done blood of 6 pregnant women was processed by plasmapheresis, and during this both auto packed red cells and auto plasma were received in volumes 1050 and 2600 ml respectively. It was shown against the background of plasmapheresis and ultra-violet radiation of blood, that patients' state was improved considerably both subjectively and factually, and biophysical profile of fetus and its cardiogram as well. Transfusion of auto packed red cells and that of auto plasmas were performed both in the end cesarean section operation and within postnatal period. Additional plasmapheresis combined with ultra-violet radiation of blood was performed during 2-4 days with 7 patients from risk group of postnatal infection development (1-2 procedures). There was no hemorrhage during the cesarean section operation, nor donor blood and its components were used. No hemotransfusion complications was detected when returning autohemopreparatives.

Apgar score of all newborn was 7 - 9. All the patients were discharged on 11 - 14 day.

So, the efferent therapy methods including automeans preparation control effectively pregnancy pathology and provide compensation of operational blood losses by autohemoresources and autoplasm without donor supplies.

CLINICAL TRIALS OF HUMAN LUNG SURFACTANT FROM AMNIOTIC FLUIDS IN NEONATAL RESPIRATORY DISTRESS SYNDROME

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Objective: *Estimation of the efficiency, tolerance and safety of «Surfactant-HL» (ST-HL) (CRIRR, St.-Petersburg, Russia)) for treatment of neonatal respiratory distress syndrome (NRDS) was performed in 5 Russian neonatal departments in Moscow and St-Petersburg.*

Methods: *145 ventilated preterm infants (gestational weeks 31.6 + 0.43, birth weight 1696 + 65, S g) suffering from RDS were observed: 86 of them were treated with ST-HL (50 mg/kg, one of two administrations), the rest 59 infants formed a control group (K).*

Results: *improvement of lung functions was registered in 67%-82% of patients in different hospitals after ST-HJ treatment. ST-HL reduced period necessary to achieve $FiO_2=0.4$ from 126.8 h (K) down to 80.6 h ($P<0,05$) and CMV period from 229.8 h (K) down to 165.8 h ($P<0,05$). Intolerance to the formulation was not observed. Safety of ST-HL was estimated in accordance with the rate of direct complications caused by ST-HL administration (airway obstruction 4,6% and pulmonary hemorrhage 1.2%), as well as the rate of perinatal period complications whose frequency can vary during ST-HL treatment. The following complications were found: pneumothorax and pulmonary interstitial emphysema 10.1%, broncho-pulmonary dysplasia 7.0%, periventricular haemorrhage 14%, intraventricular haemorrhage III-IV 7%, ductus arteriosus persistens 24.4%, sepsis 6.2%, secondary pneumonia 19.8%. These data were similar to the data obtained with oilier natural surfactants [Wauer RR et al., Klin Padiatr 1996, 208:355-65]. The 7th-day mortality was 8.3%, and 28th-day mortality was 15.1 %. NRDS caused death only in 2.3% of patients. Conclusion: ST-HL can be used for NRDS treatment in neonatal intensive care units of II-III levels.*

THE COMPARISON OF EFFECTIVENESS ESTROFEM, KLIOGEST, AND TRISEQUENS IN WOMEN WITH SURGICAL MENOPAUSE

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The menopause is accompanied by changes of lipid profile and some parameters of hemostasis. These changes are results of estrogen deficiency and aging. Some women become menopausal in younger age, in premenopausal or reproductive period of their life. by surgical removal of ovaries with or without hysterectomy. We evaluate the serum concentrations of gonadotropins, sex steroids, cholesterol, triglycerids, LDL, HDL, fibrinogen in 66 women with surgical menopause and effectiveness of hormone replacement with estrofem, kliogest and trisequens. We used combined (continuous and sequential) therapy in those women after hysterectomy who underwent surgery because of endometriosis.

Results. Estrofem and kliogest significantly decreased LH (mediana before treatment was 29,8 mIU/l and 19,5 and 17,2 respectively), FSH (75,1 mIU/l versus 30,2 and 28,6 respectively), trisequens didn't change LH and FSH. Estradiol increased from 50 pmol/l to 493 (estrofem), 329 (kliogest) and 380 (trisequens). Testosterone and DHEAS were significantly higher after usage of estrofem. then before treatment or usage of kliogest and trisequens. These changes in hormonal pattern were accompanied by following changes in lipids and fibrinogen (mediana, q1-q2):

N=66	Before treatment	Estrofem n=26	Kliogest n=17	Trisequens n=23
Cholesterol mg/dl	219,5(183.5-235.5)	199,0(173.5-212.5)	195,0(171.5-212.0)	201,5(170.0-210.0)
Triglycerids mg/dl	95,0 (74.0-122,5)	101,5 (80.5-143,0)	76,0 (64,0-93.5)	75,0 (52.0-93.0)
LDL mg/dl	123,0(102.0-154.0)	100,0(86,5-112.5)	113,0(92.0-121.0)	104,0(80.5-124,5)
HDL mg/dl	63,0 (54.5-71.5)	67,0(57,5-85,5)	64,0(56,0-70.5)	75,0(66.5-85.0)
Fibrinogen mg %	425,0(350.0-500.0)	350,0(287.5-475,0)	330,0(312.5-425.0)	300,0(250.0-300.0)

Thus, Estrofem, kliogest and trisequens, decreasing levels of cholesterol, LDL and fibrinogen, reduce risk of cardiovascular disease in women with surgical menopause.

THE ROLE OF PRENATAL SCREENING IN PROPHYLAXIS OF FETOINFANTILE LOSSES

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Objective: *The aim of the research was to study the dependence of the fetoinfantile losses' indices from use of prenatal screening on the congenital pathology and the intrauterine infection.*

Methods: *In the Omsk area the prenatal screening has been inculcated since 1993 and carried out in 2 stages. The first stage provides examination of pregnant women with ultrasonic scanner, bloods research of β -fetoprotein, chorionic gonadotropin, estriol, TORCH-infection and syphilis. The second stage includes Doppler ultrasonography, invasional diagnosis and consultation of a perinatalist-geneticist. The fetoinfantile losses were estimated with the indices of mortinatality, perinatal and infantile mortality from 1993 to 1998.*

Results: *The conducted analysis showed that inculcation of screening's programs allowed to diagnosticate and eliminate defective fetuses with maldevelopment, chromosomal diseases, with a high risk of developing of intrauterine infections including condental syphilis in time. It led to the lowering of amount of children who were born with developmental defects and the lowering of early neonatal mortality in this group. In general during the period analyzed when the total natality decreased from 10,7 to 9,2 per 1000 people the index of the perinatal mortality decreased from 16,3 to 14,9 per 1000 live birth and the index of the infantile mortality — from 20,3 to 14,3 per 1000 live birth. At the same time the specific gravity of developmental defects decreased from 40,5 to 28,8 per 10.000 live birth and the specific gravity of infections — from 20,3 to 10,1 per 10.000 live birth in the structure of the infantile mortality.*

Conclusions: *The obtained results are evidence that the prenatal screening is the important part of the work aimed at the lowering of the fetoinfantile losses.*

DIFFUSE NON-TOXIC GOITRE AND FEMALE REPRODUCTIVE FUNCTION

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Objective and Methods. 150 women with diffuse non-toxic goitre (DNG) age 19-42 and 80 healthy women of the same age were examined with ultrasonic determination of thyroid volume, colpocytology, basic thermometry, serum levels of gonadotropins, prolactin, thyroid hormones, estradiol, progesterone by immunofermentic method.

Results. 31 women (20,6%) with DNG revealed such reproductive dysfunction as short hyperthermic menstrual phase, low excretion of estradiol and progesterone on the 20th and 24th days, anovulatory luteinization in comparison with 9 women (11,2%) of control group ($p < 0,05$).

Conclusions. This tests indicated an inadequate response mechanisms between thyroid, hypothalamic and ovarian systems in patients with DNG.

PENTAGLOBIN INFLUENS ON IMMUNOGLOBULIN SERUM AND TRACHEA LEVELS IN VENTILATED NEWBORN INFANTS WITH RESPIRATORY DISTRESS SYNDROME

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Objective. The immune deficiency of preterm infant, the low rate of passively acquired maternal antibodies, is one of the main reason of pneumonia in the ventilated newborn infants with respiratory distress syndrome.

Methods. 50 preterm neonates (gestation age ranging between 27- 34 weeks and birth weight between 990g - 2500 g) were treated with pentaglobin in the dose 5 ml/kg/day within three days. Evidence for the appointment of the preparation were early occurring tracheitis, virus-bacterial pneumonia. Serum and tracheal immunoglobulin concentration measured on 1-2 of life and 7-9 days (after pentaglobin infusion).

Results. On 1-2 days, the serum levels were Ig G - $2,9 \pm 0,2$ g/l, IgM - $0,42 \pm 0,02$ g/l, IgA - $0,13 \pm 0,08$ g/l. The infusion of pentaglobin resulted in statistical increasement of all immunoglobulins: IgG- $4,8 \pm 1,2$ g/l ($p > 0,05$), IgM - $1,2 \pm 0,1$ g/l ($p < 0,05$), IgA - $0,58 \pm 0,13$ g/l ($p < 0,05$). The tracheal concentration exceeded the initial levels in 15,1, 6,3 and 1,5 times.

Conclusions. Use of pentaglobin in complex treatment contributed a reducing duration infectious toxicosis, a decrease of inflammatory process and period of mechanical ventilation of newborns with tracheitis, virus-bacterial pneumonia.

LAPAROSCOPIC TREATMENT OF ENDOMETRIOSIS-ASSOCIATED INFERTILITY AND THE OVARIAN FUNCTION

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Objective: To study the influence of laparoscopic treatment of pelvic endometriosis on the ovarian function.

Methods: The laparoscopic treatment (bipolar coagulation of endometriosis heterotopies, adhesiolysis) was performed in 100 women with infertility caused by pelvic endometriosis associated with normogonadotropic normoprolactinemic ovarian insufficiency. Medicamentous therapy of endometriosis and stimulation of ovulation were not used. The ovarian function was evaluated with the help of basal body temperature, ultrasound monitoring, estimation of blood estradiol and progesterone levels before and 3-6 months after laparoscopic treatment of endometriosis.

Results: There was no restoration of ovarian ovulatory function after the treatment in 40% of patients (1st group). The luteal insufficiency was found in 5% of patient with anovulation (2nd group). The restoration of ovulatory menstrual cycle happened in 55% of patients (3rd group), with 29 of them became pregnant in 2-6 months. The initial level of estradiol and progesterone in the 2nd – 3rd groups was higher than in the 1st group ($p < 0.01$ and $p < 0.05$, relatively). Positive correlation ($r = 0.32$, $p < 0.001$) between the progesterone level and frequency of ovulation restoration was found.

Conclusions: The restoration of ovarian ovulatory function in 55% of women after removal of endometriosis heterotopies shows its great importance and the necessity of laparoscopic treatment for patients with infertility caused by pelvic endometriosis and hormonal ovarian insufficiency.

THERAPEUTICS ASPECTS DIATHERMY OF SURGERY OF CERVIX UTERUS

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Objective: The solution of oncogynaecological problems provides duly diagnostics and appropriate treatment of background condition of cervix uterus. The correct approaches to a solution of this problem help to prevent dysplasia and crawfish of ecto- and endocervix. The definition of the indications to operation and choice of a method of treatment according to patient's age is actual.

Methods: To optimize outcomes of diathermy excision during treatment of background condition of cervix uterus in pre- and postoperation period lowdosage combined synthetic progestins such as Rigevidon, Marvelon, Silest were applied. The selection of a preparation was conducted individually.

Results: The diathermy excision on a conventional technique is made to 32 out-patients. Control group, in which lowdosage oral contraception was not applied consisted of 20 women. Synthetic progestins under the scheme of contraception applied during one menstrual cycle before operation and during consequent two menstrual cycles continuously (without a seven-day time interruption within 42 days). The operation was conducted in one of days of second menstrual cycle on background of hormone-containing contraception application.

Conclusions: The application of extrogen-progestagen contraception before and after operation has allowed: 1) To exclude a possibility of pregnancy 2) To prevent origin endometrioid heterotopies 3) To be free in choice of a day of operation 4) To reduce terms epitalisation wound of a surface The obtained outcomes testify to expediency of realization diathermy excision of cervix uterus at the women of reproduction age on a hum noise of use combined hormone-containing contraception using.

PRENATAL FACTORS INFLUENTIAL IN BECOMING REPRODUCTIVE SYSTEM OF YOUNG GIRL WITH BIG BIRTH WEIGHT

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Objective: to reveal the unfavorable factors in prenatal period influential in becoming menstrual function of the girl with big birth weight.

Methods: the program of an inspection included learning becoming menstrual function with allowance for developments gonadotrophic and ovarian hormones, analysis prenatal factors at 349 girls 10-16 years with big birth weight (4000,0 g and more) - main group, and at 315 girl with an average birth weight - control group.

Results: the average age of menarche at the girls with big birth weight has made 12 years 2 months + 0,12 years (in control group - of 12 years 10 months + 0,11 years). At the girls of main group the earlier beginning of operation of the hypophysis - ovarii system. At the girls 8-9 years a level FSG was marked has made $4,39 \pm 0,26$ mME/l, LG- $2,72 \pm 0,2$ mME/l, oestradiol- $0,18 \pm 0,01$ nmol/l, progesteron - $2,02 \pm 0,14$ I nmol/l, in control group - the level FSG has made $3,03 \pm 0,26$ mME/l, - LG - $2,03 \pm 0,21$ mME/l, oestradiol - $0,11 \pm 0,01$ nmolM, progesteron - $1,47 \pm 0,14$ nmol/l. The becoming ovulatoris cycles was delayed, that appeared in the greater frequency of disorders of menstrual function (48,4 % against 15,6 %). Mainly at the girl, who was delivery from the fat mothers, with complications in delivery (weakness of patrimonial activity, delayed delivery, hypoxia of a fetus). Most frequently met anovulatoris cycles, juvenile bleeding, irregular menstruation, algomenorrhea, gyperpolymenorrhea. To completion of puberty at the girl of main group the lower level progesteron was marked ($15,81 \pm 1,12$ nmol/l, in control group - $23,10 \pm 0,71$ nmol/l).

Conclusion: thus, fat mothers, delayed delivery, big birth weight, hypoxia of a fetus concern to prenatal factors most frequently detected at the girl with big birth weight with abnormal menstrual cycle in puberty.

PERINATAL TECHNOLOGIES IN ANTENATAL EVALUATION OF FETUS

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Objective: to evaluate perinatal technologies in finding antenatal pathology of fetus.

Methods: Expert analysis of medical examination and managing of 700 pregnant, burned in 1997, of one Moscow outpatient obstetrician clinic was made. Standard clinical examination was added by determination of a-fetoprotein, HCG, antiphospholipid antibodies, anti-HCG antibodies, Doppler, hemostasiogramm.

Results: Disturbances of fetal development was found in 103 pregnant patients so they got therapy in time. In 4 cases anomaly of fetus development was revealed due to determination of a-fetoprotein that was the reason to termination of the pregnancy. Critical condition of fetus-placental circulation was found in 3 cases by Doppler that was the reason to extreme delivery of the patients.

Conclusions: For further decrease of perinatal mortality it is necessary to include in standard clinical examination a-fetoprotein and Doppler as screening methods, and by indications HCG, antiphospholipid antibodies, anti-HCG antibodies, hemostasiogramm.

LITHUANIAN WOMEN'S REPRODUCTIVE HEALTH

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Method: Analysis the changes of reproductive women's health in Lithuania is performed in this abstract. For this reason are used official statistical data and references.

Results: In Lithuania in 1997 total population was 3.705.600, females - 1.957.600 (52.8%). Among females 935.224 (47.1%) were 15-49 years age, women's fertility rate was 1.9. Birth rates every year are decreasing, - in 1980 was 15.0, in 1997 - 10.2. Natural increase of population in 1997 was negative - 0.9/1000. Life expectancy from 1995 is increasing, - in 1997 for females was 76.8 years and for males - 65.9 years. Perinatal and infant mortality rates are decreasing, - from 16.5 in 1992 to 10.3 in 1997. In 1997 were 37.607 deliveries. Spontaneous abortion, ectopic pregnancy and preterm labor are increasing: spontaneous abortion in 1995 was 4823 (12.8%), in 1997 - 5786 (15.3%); ectopic pregnancy in 1995 - 886 (2.3%) in 1997 - 1061 (2.8%), preterm deliveries in 1995 was 1409 (3.7%), in 1997 - 1809 (4.8%). Extragenital diseases, pathological pregnancies and labor are increasing. Oncological diseases among women (per 100.000) was: carcinoma gl. mamma in 1995 was 50.8; in 1997 - 21.9; carcinoma ovary and endometrii in 1995 was 39.8, in 1997 - 43.4, carcinoma colli uteri in 1995 was 18.7, in 1997 - 21.9. Endometriosis genitalia are increasing too. 34.4% of pregnant women are infected by STD's, syphilis in 1990 was 1.8 per 100.000, in 1996 - 87.3. Artificial abortions from 1995 are decreasing, - in 1997 - 60.1 per 100 live birth or 24.3 per 1000 women of 15-40 age. Smoking habits among women in 1998 was 12.5%, 38.8% smokers were 20-34 age, in this age group smoking habits from 1994 to 1998 increases 2.5 times. 37% women are drinking alcohol 2-3 times per month, particularly are drinking young women.

Conclusions: Pathology in pregnancy and labor is increasing, birth and artificial abortion rates are decreasing. Oncological diseases and STD's are increasing. Smoking and alcohol using are increasing. Data show what reproductive health Lithuanian women are deteriorating.

ENDO-MIOMETRIAL VAPORIZATION IN THE TREATMENT OF ABNORMAL UTERINE BLEEDING

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Today one of the most effective methods of the treatment of abnormal uterine bleeding in perimenopausal women is transcervical resection of endometrium (TCRE). However, using of this technology associates with high risk of developing intraoperative complications, such as: 1) intraoperative bleeding; 2) perforation of the uterus; 3) distention medium hazards. Therefore we researched opportunity of the using of technology of vaporization of the uterus tissue to destruct endometrium and superficial portion of myometrium. We performed transervical vaporization using continuous-flow system. All patients received uterine preparation prior to surgery within 2 months by Danazol or GnRH agonists.

A new "OLYMPUS disk electrode" corrugated to provide high edgedensity electric power, has been used in the treatment of menorrhagia to vaporize tissue. The use of 250-300 Watts power setting enables the "OLYMPUS disk electrode" to reduce bleeding, intravasation and dramatically reduces operating time. The endometrium in the cornual areas we destroyed by a roller ball electrode using 90-100 Watts power setting to avoid uterine perforation. As distention media we used 5% solution of Glucosae.

This technology we performed on 66 patients aged 48 ± 1 , 4 years (range 45-55). Neither uterine perforation nor major complications occurred. Control transvaginal and intrauterine sonography revealed complete coagulation of endometrium and induration of myometrium on depth of 8 mm. The patients were followed up 6 months after treatment. Amenorrhoea was registered in all cases. Histological examination performed after 6 month's postoperative period revealed fibrosis of myometrium on the depth of 5 mm (depth of cutting loop).

INCREASED PHENOTYPE FREQUENCIES OF HUMAN LEUKOCYTE ANTIGENES CLASS II VIA A POSSIBLE MECHANISM OF RELATIVE RISK OF ENDOMETRIAL ADENOCARCINOMA

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Objective: Previous data have shown association between HLA phenotype and cervical cancer. The aim of our study was whether identify of HLA class II alleles to correlate with relative risk of endometrial adenocarcinoma (EA).

Methods: We typed by polymerize chain reaction-sequence specific primers (PCR-SSP) technique (HLA-DRB1*01-16, DQB1*0201-0608, DQA1*0101-0601 alleles) of 46 patients with EA and 78 healthy subjects. Features are calculated using χ^2 test, and also relative risk (RR), ethyological fraction (EF) and preventive fraction (PF).

Results: Increased phenotype frequencies of HLA-DRB1*03 and DQB1*0201 are estimated from patients with EA (39,1% and 41,3%) comparing with healthy subjects (12,8% and 24,4%), RR are 4,37 and 2,19, EF are 0,139 and 0,103, $p < 0,001$ and 0,05, respectively. Decreased phenotype frequency of HLA-DRB1*01, DRB1*04, DQB1*0301 and DQA1*0301 are estimated from patients with EC, RR are 0,14, 0,12, 0,25 and 0,35; PF are 0,114, 0,125, 0,151 and 0,166, respectively, ($p < 0,05$). There were no alleles of HLA-DQA1*0401 from patients with EA comparing with healthy subjects (0% and 7,7%, respectively), but there are no significant differences between both groups by χ^2 -test, ($p < 0,1$).

Conclusion: Eventually, it's conceivable that increased phenotype frequencies of HLA class II alleles can be used to identify relative risk of EA. For clinical application, however, these indices are to be combined with features of anamnesis and appreciation of influence environmental factors.

PERINATAL FETAL CARE: STILL ACTUAL PROBLEM

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Current demographic situation in Russia is characterized by low birth and high mortality rates. In this situation reduction of the perinatal mortality and morbidity that are still high have to be of great importance. There are more than 4500 deliveries per year in Moscow Center of Family Planning and Reproduction (obstetrical clinic of Russian State Medical University) with gradually decreasing perinatal mortality rate (1997 – 3,0 ‰, 1998 – 1,87 ‰). We believe that only well organized pre-, ante- and intranatal care, intensive care of the neonates can provide the decrease of perinatal morbidity and mortality – the main goal of perinatologists.

The complex management of high-risk patients beginning from the 1st trimester should include genetic counselling, CVS, amnio- and cordocentesis, evaluation of intrauterine infections, dynamic ultrasonography, fetal monitoring including CTG and biophysical profile, assessment of feto-placental circulation. Using of diagnostic and prognostic criterias of antenatal screening, optimal mode and term of delivery, intensive care of high-risk neonates proved to be useful in the prediction of pregnancy outcome and provide significant reduction of CNS disorders.

Thus we believe that complex examination of high-risk patients allows to make a new approach to the prognosis of pregnancy outcome, early diagnosis and prophylaxis of perinatal disorders.

GENITAL HPV – INFECTION IN WOMEN OF REPRODUCTIVE AGE

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Objective. To reveal HPVs of high risk for the development of cervical carcinoma in women of reproductive age.

Methods. Clinical and microbiological methods were used. HPVs were studied by means of a Hybrid Capture II System.

Results. 309 women were examined. Oncogenic types of HPVs were found in 112 (36.2%) of them.

High risk HPVs were determined in all cases of cervical carcinoma in one of 5 cases of vulvovaginal carcinoma and in no case of ovarian cancer HPVs were revealed. In the presence of pointed condyloma and papilloma in the genital area 17 (40.5%) out of 42 patients had high risk HPVs. Examination of 78 patients with cervical erosion and/or dysplasia has shown high risk HPV in 32 (41%) of them. HPVs were also found in cervical and ovarian inflammatory and noninflammatory diseases (endometritis, salpingitis, endometriosis) in 25 % of cases. 85% of women with high risk HPV had early beginning of sexual life and polygamous sexual behaviour (from 2 to 20 partners) and, as a consequence, various STDs in anamnesis.

Conclusions. The data obtained entirely correspond to the idea of belonging HPVs to the agents that are sexually transmitted. The determination of HPV markers allows to specify the contingent of women who need periodical examination.

DIAGNOSTIC POSSIBILITIES FOR THE DETERMINATION OF CHLAMYDIAL INFECTION IN FETUSES AND NEWBORN INFANTS

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Objective. The finding of *C. trachomatis* in perinatally lost fetuses and in newborn infants born by natural route or by cesarean section.

Methods. Cultural method was used to isolate of *C. trachomatis* in McCoy cells from internal organs of lost fetuses (lungs, trachea, liver, spleen, brain) and from the lower eyelid conjunctiva, posterior wall of the throat, vulva in girls and the 1-st urine portion in boys, as well as from the placenta and extraplacental membranes. *C. trachomatis* DNA was determined by PSR method, and *C. trachomatis* antigens were analysed by DIF and ELISA methods.

Results. From 1980 to 1999 there were studied 418 organs of 114 lost fetuses and newborn infants, and 1580 newborn (1476 of them were born vaginally and 104 – by cesarean section) were examined. *C. trachomatis* were found in 9.8% of newborn infants and in 23% in infants delivered by cesarean section. Chlamydiae were isolated from internal organs in 17.4% of perinatally lost fetuses and newborn infants. In placenta and extraplacental membranes *C. trachomatis* were found in 3.85% and 5.66% of cases, respectively.

Conclusion. Fetuses and newborn infants may be infected by *C. trachomatis* not only when passing through maternal delivery tract but also in utero in the presence of chorioamnionitis.

SEXUAL DYSFUNCTION IN GYNECOLOGIC PATIENTS WITH CHRONIC PELVIC PAIN

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The purpose of this study was the next: first, to investigate the association between chronic pelvic pain (CPP) and sexual distress in gynecologic patients, second, to correlate the history of sexual abuse and somatization in groups of women with CPP and without pain. The Middlesex Hospital Questionnaire (MHQ) and structured sexual interview were administered to 63 gynecologic patients, who already underwent the necessary operative treatment. All women were divided into 2 groups: 31 patients with CPP and 32 pain-free. No significant differences in age, educational attainment, marital status, severity or type of gynecologic pathology, rates of anxiety and phobia (MHQ) were observed between 2 groups. Besides, both of them reported low sexual desire, sexual aversion, partial failure to attain the lubrication-swelling response, inhibited orgasm in 50-75% intercourse's. Number of sexual trauma (incest, rape, repetitive molestation's) was just the same in patients with CPP and without pain. However, women with sexual trauma in both groups reported younger age at first intercourse, higher total number of sexual partners and of painful intercourse's, higher scores of hysteria and somatic anxiety (MHQ). A strong correlation was observed between hysterical scores (MHQ) and history of sexual trauma in CPP patients. No similar correlation was noticed in comparison group. One possible explanation for these findings would be that women, who somatized, are more likely to exaggerate or fabricate histories of sexual trauma. Nevertheless, a history of sexual abuse and high hysterical scores (MHQ) can be predictive of increased risk for CPP in gynecologic patients. The sexual dysfunction in gynecologic patients should be taken into account in order to achieve their good well-being.

CAN ANTIBIOTICS BE TERATOGENIC ?

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Objective: *Gestation is a very special period for women. One of the threats at this time is bacterial infection. The presented experiment aimed to evaluate influence of two marketed antibiotics: Timentin (beta lactam karboxypenicillin combined with beta-lactamase inhibitor) and Adriblastin (doxorubicyn hydrochloride), antibiotic cytostatic*

Method: *188 Wistar rat females of 200-250 grams weight fertilized and 653 fetuses were delivered and examined. Following experimental groups were created: Timentin i.p.) intraperitoneally at doses I- 32,0, II -320,0, III-3200 mg/kg body weight (b.w.) respectively, Adriblastin (i.p.). 16 mg/kg, b/w. Parallel three control groups were made: K1-0,9%NaCl i.p. 1ml/kgb/w., K2- distilled water i.p.-1ml/kgb/w, Ko-received either no created. Drugs were administrated between 8 and 15 day of gestation and 21 days of gestation decapitations were performed. Fetuses were evacuated by cesarean section. Macroscopic evaluation of fetuses and placentas was done. Part of fetuses were dissected to observe changes in internal organs. Another part was stained in Dawson's methods to watch their skeletons changes.*

Results: *Adriblastin decreased weight gaining of females between 1-21 day of gestation in comparison to control groups. In Adriblastin group weight increase was $23,67 \pm 5/14g$, what is only 21,3% weight increased in females of control groups. Adriblastin increased number of early and late resorption. This gave a significant increased of post implantation mortality index — it was 37,25%. In fetuses there occurred heavy development defects: spina bifida, brain hernia and tongue hypertrophy ancyrodactyly of 3 and 4 finger.*

Conclusions: *Adriblastin was toxic for mothers and fetuses. From the obtained results we can state the Timentin alone does not act embryo toxically and teratogenically.*

CERVICAL PATHOLOGY IN WOMEN INFECTED WITH ONCOGENIC TYPES OF HUMAN PAPILLOMAVIRUS

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Objective: We determined frequency and nature of cervical pathology in women infected with oncogenic types of Human Papillomavirus (OT HPV).

Methods: 350 women with cervical pathology and 50 women without it were investigated. OT HPV were detected by means of Hybrid Capture 2 and PCR. All women underwent colposcopic and oncocytologic examination.

Results: 27,7% of women with cervical pathology and only 5,4% of women without it were infected with OT HPV. In women infected with OT HPV in 23 cases we revealed primarily cervical dysplasia (among them in 11 cases – mild, in 6 – moderate, in 3 – severe dysplasia, in 3 – carcinoma in situ). Quantitative detection of HPV demonstrated correlation between HPV viral load and frequency and severity of dysplasia: when viral load was less than 100 DNA copies/mkl in investigated sample no dysplasia was revealed (in 80% of cases) or mild dysplasia (20%). In viral load 100-750 DNA copies/mkl no dysplasia was revealed in 20%, mild dysplasia – in 40% and moderate dysplasia in 40% of cases. When viral load was more than 750 DNA copies/mkl no dysplasia was revealed in 10%, mild – 40%, moderate – in 30%, severe dysplasia or carcinoma in situ – in 40% of cases.

Resume: All women with cervical pathology should be investigated for the detection of OT HPV. Viral load detection can be an additional criterium for patients screening who are required corresponding diagnostic and treating procedures.

EARLY DIAGNOSIS AND STAGE-RELATED THERAPY AS MAJOR FACTORS FOR PREVENTING DISABILITY IN CHILDREN WITH PERINATAL CEREBRAL PATHOLOGY

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The study was carried out on the basis of St. Olga CPH. The aim of the study was to establish methods of early diagnosis of cardinal CNS function disorders in children during their first three years and to estimate the approaches to stage-related therapy of children with cerebral palsy.

Strictly determined set of partial components of psychic function was qualitatively and quantitatively evaluated in accordance with the classification of prespeech development delay. For one year old babies: visual, hearing and vocal function, emotions, visual and motor coordination, prerequisites for expressive speech (reflected and spontaneous babbling, non-differentiated chattering) and expressive speech (differentiated chattering, words), prerequisites for impressive speech and impressive speech, and reflexes of oral automatism, persistent synkineses preventing the development of speech stereotypes. For two-three year old children: visual, hearing and vocal function, emotions, visual and motor coordination, visual and spatial ideas, expressive speech, impressive speech, game activity. The quality of motor development was estimated correspondingly to righting and statotonic reaction (chain symmetric righting reflex).

By the first year of life ($n=150$) — 10.7% of children with early stage of cerebral palsy demonstrated the I-II degree delay of prespeech development, 89.3% — the III-IV degree delay of prespeech development.

Among 213 children, who were diagnosed cerebral palsy by the 6-7 month and got comprehensive complex therapy, follow up (4-7 years) revealed contractures (7.1%) in the joints of upper and lower extremities (predominately functional), 84 children, in whom cerebral palsy was diagnosed after the first year of life contractures were demonstrated in 41.6 % of cases (predominately rigid), and 125 children who did not get systematic therapy demonstrated multiple contractures (predominately rigid) in 50.5% of cases after the first course of treatment. So, if pre- and postnatal maturing of brain structures controlling the development of motor, psychic and speech functions is stage-related, then therapy if undertaken within appropriate period can facilitate their normal evolution.

THE DOPPLER RESEARCHES OF OVARY AND UTERUS ARTERIES OF WOMAN SUFFERING FROM HABITUAL MISCARRIAGES

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Objective: The purpose of the study was to the state of blood flow in the ovary and uterus arteries of woman suffering from habitual miscarriages with the chronic inflammatory diseases of genitals.

Materials. A total of 35 women aged 20 to 38 years were examined after spontaneous abortion.

Methods. The ultrasound Doppler researches were carried out with the help of an apparatus «Acuson 128 XP/IO» with using of [vaginal sensor with (frequency 7 MHz)]. bacteriological analysis of discharge from the cervix uteri and cervical canal mucus were studied by DNA hybridization in order to detect virus infection.

Results. Women with the chronic inflammatory diseases of genitals had increasing of the vessel resistance of ovarian arteries from moderate to expressed spasm. Treatment included antibacterial, immunostimulation, antispasmodic agents, enzymotherapy and physiotherapy. The second echography was done after the treatment. The essential improvement of blood flow characteristics in the ovary and uterus vessels was found.

Conclusions. The determination of ovary blood flow can be considered as the objective additional diagnostic criterion witch allows to estimate the function of ovaries and the treatment effect.

PHATOMORPHOLOGICAL DIAGNOSTICS ETIOLOGY OF MISSED ABORTION

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Among different form early of habitual miscarried greed important is missed abortion. The purpose of the study was to discover the main reason of missed abortion on the basis of the hystological analysis of the abrasion cave uteri materials.

Materials. A total of 50 women aged 20 to 38 yeas were examined after missed abortion.

Methods. General clinical examination, ultrasonography of pelvic organs, bacteriological analysis of discharge from the cervix uteri, hormonal examination, analysis of immunological state, genetic examination and hystological analysis of the abrasion cave uteri materials after missed abortion.

Result. During Phatomorphological investigation endometrium after missed abortion it was revealed 18 women had markers of inflammation d. basalis and d. parietals in form division infiltration by leukocytes and in form of reological pathology. 11 women had signs endocrine disorders. 6 women had immune disorders in form reological transgression. 2 women had markers of genetic pathology.

Conclusion. On the bases of the revealed markers missed abortion different variants of pathogenesis missed abortion were studied. Schemes of examination and treatment were suggested.

IMMUNOLOGIC FACTORS OF SPONTANEOUS ABORTION

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Objective. The purpose of the study was to researches of contents\affinities autoantibodies (a-AB) of IgG class, which pass placenta barrier freely in blood of woman suffering from habitual miscarriages.

Materials. A total of 221 women aged 20 to 38 years were examined after spontaneous abortion.

Methods. Evaluation of a-AB level to developmentally important proteins ACBP and MP-65 in women blood by ELI-P method, general clinical examination, ultrasonography of pelvic organs, bacteriological analysis of discharge from the cervix uteri, hormonal examination, analysis of immunological state, genetic examination and hystological analysis of the abrasion cave uteri materials after missed abortion.

Results. More then 95% of women had abnormally high level of a-AB. Infectious agents, endocrine pathology, immune disorders influence the level of a-AB differently. The highest level had women with combination some pathogenic factors. The level of a-AB was decreasing after the correct treatment.

Conclusions, contents\affinities of a-AB to developmentally important proteins ACBP and MP-65 in women blood is an important characteristic of women reproductive system.

IMMUNE SYSTEM AND PREECLAMPSIA

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It is known, that there are two different ways of development of immunocompetent cells by the activation of immune system. The first way is the proliferation and differentiation cells with their following capacity to realise of effectors functions, the second way is programm death of cells - the apoptosis.

Study design: We investigated the functional state of immune system and markers of apoptosis in patients with normal pregnancies (13) and those patients with pregnancies complicated by severe preeclampsia with decompensation of foetoplacental insufficiency and stillbirth (5). The ages of the patients ranged from 16 to 35 years old, the gestational ages - from 24 to 32 weeks. We used the method of FACSCalibur Flow Cytometry System and system of monoclonal antibodies by "BECTON DICKINSON" in our investigation.

Results: Our results provide evidence of decreases the concentration of all lymphatic cells populations and subpopulations in the venous blood in patients with severe preeclampsia compared with the normal women, including markers activation of the immune system and cells of "memory".

The apoptosis markers were diagnosed in all pregnancies, but in case of the most concentration of those cells, stillbirth took place before manifestation of the severe preeclampsia.

Conclusion: The immune system of pregnant women with severe preeclampsia complicated by stillbirth is characterised by the asthenisation of all populations and subpopulations lymphatic cells and by apoptosis.

ECOLOGY AND ALLERGIC PATHOLOGY OF NEWBORNS

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Continuous study of 3000 children in the age of 0-14 years was carried. Studied children were the inhabitants of Kazan, with zones, differing in quantitative and qualitative air pollution characteristics. Air pollution degree was estimated on a conditional parameter P ($P=I\bar{L}eKi$) which found to be 20.1 in the first, the most polluted zone; 14.8 in second, 8.2 in third, and 1.5 in control zone.

Generally the allergic pathology frequency among newborn was found to be $62,7 \pm 3,4$ to 1000 of children's population, including $69,4 \pm 3,4$ to 1000, among the boys, and $61,0 \pm 3,4$ to 1000 among the girls ($p < 0,05$). In allergic pathology structure among the newborns the toxic erythema covers 62.7 %, the exsudative-cattharal diatesis 19.9 %, exema 12.9 %, drug allergy 3.5 %, and postvaccinal allergy - 1 %.

Among the factors of risk, promoting allergic reactivity changes' realization, it is necessary to note hereditary disorders by allergic diseases ($r = 0,45$), early mixed and artificial feeding ($r = 0,42$), the antenatal period's pathology, such as pregnancy toxicosis, mother's acute respiratory diseases, antibiotics administrations in pregnancy ($r = 0,338$), and also the use of antibacterial drugs in early neonatal period ($r = 0,32$).

Study of ecological hazards influence has shown, that allergic pathology frequency in newborns grows together with atmospheric air pollution P . In the first, the most polluted zone, it is equal to $78.4 \pm 3,4$ to every 1000 of children's population, and only $53.2 \pm 3,4$ to 1000 ($p < 0,001$) in the control zone. Probably, it is caused by intrauterine fetus's sensibilization by harmful air-pollutants complexes, that promotes the early allergic reactivity changes' realization.

THE USE OF VARIABLE FREQUENT MODULATIONS FOR CORRECTION OF UROGENITAL DISTURBANCES AT WOMEN IN MENOPAUSAL PERIOD

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In perimenopausal period the most expressed changes occur in urogenital system. The frequency of urogenital disturbances at women of age 45-55 years reaches 50-70 %. As far as the most of these symptoms (vaginal dryness, dyspareunia, itching, relapse of vaginal and urogenital infection, senile colpitis, urine stress incontinence, dysuria) are in direct consequence with atrophic urogenital tract changes and essentially worsen patients' quality-of-life, the urogenital disturbances treatment in women in perimenopause is an urgent problem.

It is known, that the mechanical fluctuations render normalizing influence both on striped-muscle, and smooth muscle tonus, as well as promote circulatory improvement in pelvic organs due to the influence on local, segmentary and suprasedimentary regulation gears. There is also revealed, that the action of mechanical fluctuations of variable frequency - variable frequent modulations (VFM) on pelvic organs and lumbosacral vertebral part leads to an increase of estrogen quantity in blood. Taking into account a positive VFM action on main pathogenic mechanisms of urogenital disturbances occurrence in women - atrophic changes in pelvic urogenital organs, caused by decrease in estrogens, we have applied the given effect for correction of specified disturbances.

We applied a complex VFM effect on local (transvaginal) and segmentar (lumbosacral vertebral part) levels according the original technique in 7 patients. As a source of VFM we used «A device for massage» (copyright certificate №3205, 1996) and «Devices for endovaginal massage» (copyright certificate №9810183 / 1, 1998) on a original technique. A duration of procedure made 7 - 10 minutes during 10-daily sessions. During procedures in 100 % patients we seen essential improvement of a condition in urogenital sphere: disappearance of nocturia, urine stress incontinence and dysuric disturbances. It is also revealed, that vaginal pH before the procedure, was found to be within the limits of 6,5 - 7,5, and to the end of treatment was reduced on 1-2 units, that displayed by reduction in dryness, itching and dyspareunia. It is necessary to note, that in women with intact reproductive organs the recourse of urogenital disturbances was more fast, than in patients with removed ovaries and uterus.

Thus, despite a preliminary character of results received by us on urogenital disturbances correction in women, of perimenopausal age by action of variable frequent modulations, it is possible to generalize about perspective in use of a given method in practice.

LABOR ACTIVITY IN DAILY LIFE AND AT EXECUTION DURING PREGNANCY. ITS INFLUENCE FOR A HEALTH OF INFANT

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The aim of the following investigation is to determinate the interaction between work place of mother during pregnancy and the development in future of chronical disease of its infant. In case such interaction does exist it might be referred towards one more mechanism of interaction of growing generation with negative social conditions and poverty. By plain comparison of pregnancy outcomes for working women and for unemployed women the fact of caring out house work and child care were not taken into consideration. Application of modern mathematical statistical methods of results processing in the inquiry of 602 mothers of children with chronical pathology and 600 ones without any matched according to the method «copy - pair» and comparable with each other, allowed to determine that each out of six women during pregnancy is carrying heaviness more then 10 kg, experiences permanent and temporary physical efforts due to its labor activity and what is more common at execution. One out of five respondents had sufficient mental assignments, i.e. one could refer carrying out of routine work, that does not focus attention and stimulate no interest. In 18,2% case employed women pointed out that they had experienced the influence of factors related to job environment (dealing with specific chemical substances, impact of heavy noise, cold, dampness, magnetic fields etc.). Interaction was determined between the following parameters associated with labor activity of pregnant women and the development of chronical pathology of her baby in future, i.e. physical assignments ($r=20,1\%$), mental assignments ($r=25,2\%$), negative influence of environmental issues ($r=24,3\%$). Obtained results force us to conceive that in modern environment specific gravity of potential mothers who experience influence of factors related to their activity in everyday life and execution, and its impact in certain extend forms the health of potential generation.

FETAL PLASMA ACTG, CORTISOL AND C-PEPTIDE LEVELS AND FETAL LUNG MATURITY IN INSULIN-DEPENDENT DIABETIC PREGNANCIES

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Objective: Maternal diabetes has been associated with an increase risk of fetal pulmonary immaturity. The maternal hyperglycemia which result fetal hyperinsulinemia and other endocrinology changes in fetus in diabetic pregnancies may be responsible for the delayed lung maturation.

Methods: Fetal blood (FB) and amniotic fluid (AF) samples were obtained by transabdominal cordocentesis and amniocentesis in 24 women with pregnancy, complicated by insulin-dependent diabetes, at 34-37 weeks gestation. Lecithin / sphingomyelin (L/S) ratio was determined by optical density AF at 650 nm, ACTG and C-peptide - by radioimmunoassay, cortisol by immunoenzimaticassay methods. Optical density AF at 650 nm 0,150 is associated with L/S ratio equivalents 2. The statistics was made using Student t-test and correlation analyze.

Results: All women were classified in two groups: I group ($n=11$) included cases of uncomplicated diabetes and diabetic angiopathy and II group ($n=13$) - diabetes with severe vascular lesions (retinopahty, nephropathy, hypertension). Optical density AF was lower in the II group ($M=0,120\pm0,05$), than in the I ($0,172\pm0,04$). Low ACTG and cortisol levels were found out in FB in the II group ($M=29,2\pm7,4$ pg/ml and $M=69,01$ nmol/l), in compare with ACTG concentration $M=64,3\pm34,3$ pg/ml and cortisol - $M=128,7\pm52,8$ nmol/l in the I group. At the same time fetal hyperinsulinemia in the II group was more significant. The C-peptide mean levels were: in the I group - $0,69\pm0,27$ pmol/l and in the II group - $1,22\pm0,45$ pmol/l. Optical density AF was significantly associated with fetal ACTG and cortisol levels ($r=0,537$ and $r=0,490$, $p<0,05$). There was inverse correlation between AF optical density and C-peptide levels in FB ($r=-0,532$, $p<0,05$). Five newborns from the II group had pulmonary disorders after delivery.

Conclusions: This study found out that fetal pulmonary maturation is different in different classes of diabetes. Severe vascular lesions of maternal insulin-dependent diabetes have been associated with delayed fetal lung maturity. High fetal insulin levels play negative role in pulmonary phospholipid metabolism. ACTG and cortisol accelerate functional lung maturation and alveolar stability and stimulate surfactant synthesis. Insulin showed antagonism in ACTG and cortisol action on fetal lung maturation.

UMBILICAL BLOOD GASES, FETAL GLYCEMIA AND FETAL-PLACENTAL HAEMODYNAMICS IN PREGNANCIES COMPLICATED BY INSULIN-DEPENDENT DIABETES MELLITUS

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Objective: Fetal acidaemia and hypoxemia may be the result of placental insufficiency as well as the metabolic effect of maternal diabetes mellitus.

Methods: Fetal blood (FB) was sampled from the umbilical vein by transabdominal cordocentesis in 24 women with pregnancy, complicated by insulin-dependent diabetes (IDD) and 22 normal pregnancies at 33-37 weeks gestation, which was performed immediately after Doppler examination. Blood velocity systolic-diastolic (S/D) ratio was calculated in fetal descending aorta, umbilical and middle cerebral arteries, and also cerebro-placental ratio. Blood gases were determined using blood gas analyzer "ABL-30" "Radiometer". Fetal blood samples were assayed for glucose levels by standard glucose-oxidase-peroxidase method. The statistics was made using Student t-test and correlation analyze.

Results: Some fetuses ($n=7$) in diabetic pregnancies were acidaemic, but in the absence of acidosis in the most of them umbilical venous hypoxemia ($n=18$) and hypercapnia ($n=16$) were present. The mean S/D ratio in umbilical artery, fetal descending aorta in diabetic pregnancies were statistically significantly higher than in normal pregnancies and cerebro-placental ratio – lower. Associations between S/D ratio in umbilical artery, cerebro-placental ratio and umbilical venous pH ($r=-0,596$, $p<0,01$ and $r=0,404$, $p<0,05$, respectively), pCO_2 ($r=0,613$, $p<0,01$ and $r=-0,506$, $p<0,05$, respectively) were found. Fetal blood glucose concentrations in pregnancies, complicated by IDD were significantly associated with umbilical venous pH ($r=-0,616$, $p<0,01$), pO_2 ($r=-0,469$, $p<0,05$) and pCO_2 ($r=0,404$, $p<0,05$).

Conclusions: In pregnancies, complicated by IDD fetal-placental haemodynamic changes (increase of peripheral placental resistance and centralization of fetal circulation) and fetal hyperglycaemia have been associated with fetal acid base disturbance.

FETAL ADRENAL FUNCTION IN NORMAL AND INSULIN-DEPENDENT DIABETIC PREGNANCIES

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Objective: The functional role of fetal adrenal gland in processes of prenatal and postnatal adaptation is known. Fetal endocrine responses in normal pregnancy and pregnancy, complicated by maternal insulin-dependent diabetes mellitus (IDD) were examined in this study.

Methods: Fetal blood (FB) and amniotic fluid (AF) samples were obtained by transabdominal cordocentesis and amniocentesis in 24 women with IDD, at 34-37 weeks gestation and 11 women with normal pregnancies at 30-37 weeks gestation. Normal fetal cortisol synthesis dynamic was examined in 17 normal pregnancies at 20-30 weeks gestation. Maternal venous blood was collected immediately after cordocentesis. Cortisol plasma and AF concentrations were measured using immunoenzymatic assay kit. The statistics was made using Student t-test and correlation analyze.

Results: No significant difference in mean fetal cortisol concentrations between different gestation ages of normal pregnancy was found: $49,9 \pm 22$ nmol/l at 20-25 weeks, $34,5 \pm 52,5$ nmol/l at 25-30 weeks and $52,5 \pm 12$ nmol/l at 25-30 weeks gestation. But cortisol levels in FB increased gradually in the III trimester of normal pregnancy from 22,4 nmol/l at 26 weeks to 69,4 nmol/l at 37 weeks gestation and was significantly associated with gestational age ($r=0,766$, $p<0,01$). Statistically significant fetal hypercortisolemia was observed in pregnancies, complicated by IDD: cortisol levels in FB were $95,9 \pm 41,1$ nmol/l in compare with the same normal figures $52,5 \pm 12$ nmol/l. Mean cortisol levels in AF in diabetic pregnancies were also higher ($M=95,7 \pm 36,2$ nmol/l) from normal ($M=71,3 \pm 36,2$ nmol/l). There was no difference in maternal cortisol concentrations in normal pregnancies ($M=688,2 \pm 107,8$ nmol/l) and diabetic pregnancies ($M=788,9 \pm 196,07$ nmol/l). Significant correlation between fetal and maternal cortisol concentrations was found both in normal ($r=0,450$, $p<0,05$) and diabetic pregnancies ($r=0,433$, $p<0,05$).

Conclusions: Dynamic of fetal cortisol levels in normal pregnancy showed increased activity of the fetal adrenal in late gestation age. This process considered to be one of the factors initiated parturition. Association between fetal and maternal cortisol concentrations acknowledged the active placenta role in fetal cortisol metabolism and transplacental transport of maternal cortisol to fetus. Fetal hypercortisolemia may be the fetal adrenal adaptation reaction to chronic stress associated fetal hyperinsulinemia in diabetic pregnancies.

THE LEVEL OF CA 125 ANTIGEN IN SERUM FROM WOMEN WITH UTERINE MYOMA

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Objective: *The literature data on the prognostic role of blood CA 125 concentration in the patients with uterine myoma are rather different.*

Methods: *CA 125 concentration was determined in serum samples from cubital vena and uterine vena respectively from 50 and 28 patients with uterine myoma. In the range of 0-1000 units, all assays tested correlated well with clinical findings (range of correlation coefficients 0.05 – 0.3)*

Results: *The CA 125 concentrations were increased in all uterine vena serum samples and were increased only in 17% of cubital serum samples.*

Conclusion: *We conclude that the increase of CA-125 serum level was associated with myoma necrosis, endometrial hyperplasia, intrauterine contraception usage for a long period. Moreover the increase of CA 125 serum is an additional diagnostic test for determination of the type and time of operation.*

INDICES OF THE NATURAL KILLER CELLS CYTOTOXIC ACTIVITY AND INTERFERON VALUES IN PATIENTS WITH UTERINE MIOMA

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Objective: *The state of the system of immunological is of great importance for pathogenesis of uterine myoma as of any process of tumors growth.*

Methods: *56 patients were examined to study their clinical and laboratory data, total serum interferon, the ability of peripheral blood leukocytes to synthesize a/b and g-interferon, cytotoxic activity of natural killer cells.*

Results: *the cytotoxic activity of natural killer was low in 27% of women, and all of them had either fast growth of the uterine myoma (with nodes more than 5 cm in diameter) or myoma recurrence after myomectomy. High positive correlation was found between the patients age and the ability of peripheral blood leukocytes to produce g-interferon (correlation coefficient = 0,44), between the size of a myomatic node and indices of the functional activity of natural killers (c.c.=0,35), between the ability of peripheral blood leukocytes to produce a/b-interferon and functional activity of natural killer cells (c.c. = 0,32)*

Conclusion: *So, the growth of uterine myoma can be predicted indirectly by the showings of cytotoxic activity of natural killer cells and by the ability of peripheral blood leukocytes to produce g-interferon.*

TERM NEWBORNS' CONDITION AFTER SELECTIVE OPERATIVE DELIVERY

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Objective: To reveal the reason of asphyxia in term newborns after selected cesarean section.

Material: Fulfilled examination included cardiotocographia, ultrasound and Doppler, biochemical blood analyses and O_2 and CO_2 levels and oxygen transport in fetus hord. First group consisted of 49 newborns delivered with asphyxia of different severity, the second one consisted of 84 newborns delivered with Apgar score 8-9.

Results: Analysis of cardiotocogramm revealed deviation from normal values in 28,6% in the first group. Utero-placental and fetus-placental circulation was reduced in 24,5% by Doppler made 1-2 days before delivery and hord loop around fetus neck was found in 50% by ultrasound. Such changes in the second group was noted 3 times rare.

Time from the beginning of the operation to delivery was higher on 2,2 min. in the I group than in the II one. 29% of newborns form the I group suffered from intrauterine infectious disease, that was 2,5 times higher than in the I group.

Conclusions: Reasons of newborns asphyxia, firstly, was the result of intrauterine fetus condition before the delivery and it could be suggested that anesthesia and/or operative procedure by itself break uterine-placental-fetus circulation because changes of fetal hard rate was registered only in 30% of cases.

VARIANTS OF NORMAL AND PATHOLOGICAL POSTPARTUM INVOLUTION OF THE UTERUS

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Objective: High frequency of disorders in the process of postpartum involution demands corrective therapy. A process of non-induced involution was studied in dynamics in 115 patients after spontaneous delivery at 36-40 weeks.

Methods: Clinical, bacteriological and ultrasonic (US) examination of the genitals was performed on the 1-3-5-7 and in some women on the 9-11-13 days after labor. In norm, the process of genital involution in different parts goes on synchronously with certain tempo.

Results: 3 variants of involution tempos were revealed: accelerated – in 5%, moderate – in 85%, decelerated – in 10%. In moderate and decelerated tempos, along with synergetic changes, dyscoordinated uterine involution was observed in 30%. The following types of dyscoordination were seen: 1)delayed involution of the uterine body with normal contraction of the rest parts; 2)delayed involution of the isthmian part; 3)delayed cervical formation; 4)early cervical formation. The 2nd, 3rd and 4th dyscoordination types were the cause or effect of development of puerperal diseases on a subclinical stage. **Conclusions:** 1)About 70% of puerperants under the US control do not need uterotonic measures. 2)Dyscoordinated involution is the main US criterion of unfavorable postpartum course on a subclinical stage. 3)Uterine dimentions individually differed in the studied group by 2.5 times in the 1st day. Naturally, the involution of a "large" organ for the first 7-11 days is slower than that of a "small" one. This should be taken into account when using correlation tables.

PECULIARITIES OF CLINICAL COURSE, TACTICS OF CONDUCT AND THE OUTCOME OF PELVIC HEMATOMAS IN THE PUERPERAL PERIOD

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Objective: *Supravaginal hematomas make up about 20% of total quantity of postpartum hematomas. Peculiarities of clinical picture, tactics of management and the outcome in 25 cases (8 of them after cesarean section, 15 – spontaneous delivery, 2 – forceps delivery) are analyzed.*

Method: *The diagnosis is based on clinical symptoms and ultrasound scanning through abdominal wall and the vagina: in 18 patients – during the first 3 days and in 7 – on the 4th-14th postpartum day.*

Results: *Depending on localization of the source of hemorrhage and on the direction of hematoma spreading, certain symptomocomplex is formed. Typical kinds of hematomas are distinguished: paracervical, retrocervical, retrovesical and hematoma of the broad uterine ligament. Hematoma gradually resolved and symptoms stopped in 17 women; hematoma drained through the vagina or postoperative wound in 5; after suppuration it spontaneously evacuated in 3 cases (1 - into the rectum, 1 - into the vagina, 1 – into the urinary bladder).*

Conclusion: *A conservative conduct of pelvic hematomas to prevent infecting and suppuration is a method of choice. Operative treatment may be used only if there is an adequate access to or suppuration of the hematoma. Surgical inspection of the abdominal cavity is of great risk of the forced hysterectomy.*

AUTOMATIC BLOOD PRESSURE MONITORING DURING PREGNANCY

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Objective: *To study the haemodynamics parameters using 24-hours blood pressure monitoring during pregnancy.*

Methods: *We used 24-hours blood pressure monitoring in 109 pregnant women. Measurement of AP was fulfilled with the device “ABPM-02” (Hungary). The main group: 65 women with pregnancy complications (miscarriages and fetal hypoxia or hypotrophy), 44 women with normal pregnancy (control group).*

Results: *In the main group the frequency of arterial hypotension were half and twice higher than in control group (68% and 38% consequently). Day hypotension were noted in 10 (22,7%) patients of the main group and in 5 (29,4%) patients of control group; night hypotension - in 11 (25%) and 8 (47,1%); mixed hypotension in 23 (52,3%) and in 4 (23,5%) consequently. Normotension diagnosed in 12 (29%) and 25 (57%) patients consequently. The differences between two groups in frequency of hypertension conditions during pregnancy haven't been found.*

Conclusions: *Arterial hypotension is met in 2/3 of patients with miscarriages or fetal hypoxia in history and indicates the compensatory mechanisms of utero-placental complex disturbance. Early diagnostics of haemodynamics disturbances before clinical manifestation using 24-hours blood pressure monitoring will help to prevent the placental insufficiency and to form normal utero-placental complex.*

INFLUENCE OF IMMUNOTHERAPY ON ANTISPERM ANTIBODIES IN WOMEN

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Objective. *Antisperm antibodies (ASA) in women's sera have been implicated as a causative factor of infertility, pregnancy wastage and early recurrent spontaneous abortion. It was reported that approximately 50% of women with this pathology were positive for ASA. The problem of overcoming this situation is very actual for planned pregnancy and associated reproduction technology.*

Method. *406 consecutive patients with infertility and recurrent miscarriages were examined using for ASA status by ELISA assay with the help of test-system "Seravac" (Germany).*

Results. *134 patients were found to be ASA-positive (33%). The associations between the presence of ASA and patient's age, primary or secondary infertility was examined using multivariant analysis. No differences were found in investigated groups. All the patients were recommended to use a method of barrier contraception, 44 patients with ASA were immunized with allogenic leukocytes for three successive cycles. ASA was not present in 35 women (79%) after immunotherapy. In 9 women a decrease of ASA levels were revealed.*

Conclusion. *The mechanisms of the beneficial effect of immunotherapy for ASA remains to be elucidated. The important part belongs to antigenic cross-reactivity between lymphocytes and spermatozoa. It is possible that immunotherapy intends to stimulate the idiotype-antidiotypic antibody system to eliminate ASA and to induce the immune tolerance to sperm antigens.*

CORRELATION OF SERUM CYTOKINE DETERMINATION WITH PREGNANCY OUTCOME IN WOMEN WITH HABITUAL ABORTIONS

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Objective: *To test the hypothesis that disturbance of the cytokine balance during human pregnancy may initiate spontaneous abortion.*

Methods: *Levels of interleukin-6 (IL-6), interferon-gamma (IFN-g), tumor necrosis factor-alpha (TNF-a) and interleukin-4 (IL-4) were measured by enzyme-linked immunosorbent assay (ELISA) in sera from 46 women with a history of two or more prior pregnancy losses (main group). Control group consisted of 20 healthy women with first normal pregnancy.*

Results: *In main group abortions were observed in 11/46 (23,9%) women, 6/46 (13%) pregnancies terminated as preterm labor on 28-34 weeks, in two cases with premature partial placental separation. TNF-a levels were demonstrable in sera of 10/11 women with missed abortions and were 20 times higher than in control group. Normalization of TNF-a and IFN-g levels was associated with regress of symptoms of threatened abortion in main group. Increase of IL-6 levels in first trimester of pregnancy were determinate in cases of abruption of chorion villi and clinical signs of infection.*

Conclusion: *Statistically significant increased production of TNF-a, IL-6, IFN-g and reduced production of IL-4 characterized threatened abortion group and distinguished them from normal pregnancies. These preliminary data suggest that disturbance of the cytokine balance could play a significant role in the mechanisms of immunologically mediated recurrent pregnancy loss.*

DETERMINATION OF ECOLOGICAL SITUATION IN A REGION BY INDICES OF THE FEMALE REPRODUCTIVE FUNCTION IN THE PREMENOPAUSAL PERIOD

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Objective: To evaluate clinical, echographic and hormonal features of premenopausal period in connection with ecological peculiarities of a region.

Method: 43 women who live in ecologically favorable suburban region of St.-Petersburg and 33 residents of ecologically unfavorable industrial region with remaining menstrual cycle (at the age of 45-55) were examined. Besides ordinary clinical survey, ultrasound investigation of small pelvis and mammary glands was made; FSH, LH, progesterone and E2 levels were analyzed by an immunofermentative method.

Results: In women of ecologically unfavorable regions and in residents of ecologically favorable regions the following was found: number of cycles with insufficient luteal phase (with progesterone level not exceeding 20 nmol/l) was 15 (45.4%) and 13(30.2%), respectively; a decrease of the follicles number in 29(48.3%) and 24(33.3%); dysfunctional uterine bleedings in 12(36.6%) and 10(33.3%); mean basal FSH levels 15.4(3.8 IU/l and 10.8(3.4 IU/l; LH – 17.7(9.1 IU/l and 7.2(1.1 IU/l; E2 – 172.7(17.9 IU/l and 295.9(44.4 IU/l; fibroadenomatous changes of mammary glands in 48(80%) and 27(37.5%) women, respectively. All differences, besides ones of the uterine bleedings are statistically significant ($p < 0,01$).

Conclusion: The peculiarities of premenopausal period may be used for the determination of ecological situation in a region.

EXTENDED AND COMBINED SURGERY FOR GYNECOLOGICAL CANCER

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Objective: The amount of patients in St.-Petersburg, Russia primarily diagnosed for local and advanced gynecological cancer is annually increasing. 5 -year survival rate in stage IV changes in depend on sites of lesion from 10 to 15 % and in stage III does not exceed 20% The aim of the study to analyze the results of the treatment of those patients.

Methods: We analyzed the data from 146 patients underwent combined surgery, that was 3,1% from all women who received surgical treatment in the department of gynecological oncology since 1987 till 1997 for cervical, endometrial and ovarian cancer .

Results: The mostly often revealed sites of extension of the disease were rectum (22,8%), small intestine (22,8%), sigmoid intestine (21,8%), cecum (12,3%), urea excretory system (8,8%). 12,3% of patients had several sites of lesions . In 60,2% cases the bowel obstruction was developed. Including of extended and combined surgery in to the clinical practice for local and advanced women's genital malignancies allowed to increase resectability for last decade 8,5 fold. Postoperative mortality rare was 10,9%. The use of this treatment modalities showed 66,% rate of cumulative 3-year survival and 55,3% 5 year survival.

Conclusion: Thus introduction of active surgery tactics in combination with radiation and adjuvant chemotherapy shows the significant improvement in treatment outcome.

I. CESAREAN SECTION OR VAGINAL DELIVERY

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Optimal cesarean section rate is a compromise between the lowest possible number of cesarean sections compatible with the best clinical outcome. However, there is today a fear that the obstetrician will not be sued for having performed a cesarean section but by not performing cesarean section. It is important to remember that the preoperative complication rate in cesarean section is about 11 %, the majority of complications occurring in conjunction with emergency cesarean section, and taking the form of injection of hemorrhage. The risk of maternal death is 9-12 times greater after cesarean section than after vaginal delivery.

Although cesarean section has its given place in a number of obstetrics situations it is no panacea, and avoidance of its indiscriminate use entails continual review of obstetric policy and awareness of the appropriate indications. Whereas in high-risk pregnancies the indications for cesarean section are numerous (placenta praevia, abruptio placentae, cephalopelvic disproportion, dystocia, fetal distress, multiple pregnancy, intrauterine growth retardation etc.), in low risk pregnancies they are largely confined to breech presentation and fetal asphyxia. Other determinants of the cesarean section rate are such practical variables as the birth rate, obstetrical policy, the availability of resources, the medico-legal climate and the gravida's wishes.

Although local cesarean section rates may be subject to change fluctuations in the incidence of the above mentioned indications, at a national level it would seem reasonable to expect the cesarean-to-vaginal delivery ratio to bear some relation to the high-to-low risk pregnancy ratio. A review of national trends shows the cesarean section rate to have stabilized at around 12% in Sweden whereas in the USA, for instance, the rate has continued to increase and is now almost 30%, and in Italy - 23%.

II. CESAREAN SECTION OR VAGINAL DELIVERY

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Achieving an appropriate national level of the cesarean section rate entails the investment of considerable resources in continuous education at the local level, and perinatal audit systems permitting daily review of all cases scheduled for cesarean section. At a national (or international) level, maintaining awareness of current policy and knowledge regarding cesarean section also entails the regular participation of consultants and postgraduate students at national and international meetings and workshops. Such initiatives can cultivate in obstetric staff an awareness of prevailing trends and of advances in our knowledge. For instance, it has been shown to be possible to reduce the incidence of cesarean section for fetal asphyxia by improved postgraduate education in the use of cardiotocography and fetal sampling. Moreover, the cesarean section on the basis of pelvic and fetal size. In Sweden, the adoption of such educational initiatives as outlined above reflects the changing attitude in favor of vaginal delivery, and has resulted in reduction in cesarean section rates at units where they were high. It is also noteworthy that the reduction in cesarean section rates has been unaccompanied by any increase in perinatal mortality or in the frequency of fetal asphyxia, and thus does not appear to entail any increase in perinatal risk. Another noteworthy findings is that improvement in our knowledge of cesarean section has been accompanied by a reduction in the frequency of elective cesarean section.

According to the above mentioned the proposals to reduce cesarean section rate are:

education for the health care professional and the population about the advantage of vaginal delivery; consultants available to evaluate indications;

correct diagnosis of labor by the most experienced professional at the moment;

changes of juridical implications;

the possibility of vaginal delivery after previous cesarean section;

fetal monitoring is not at the service of cesarean section, but at the service of save vaginal delivery.

HIGH ACTIVITY OF MMP-2 AND MMP-9 IN TROPHOBLAST TISSUE DURING SPONTANEOUS ABORTION

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Objective: Extracellular matrix degrading enzymes – matrix metalloproteinases are responsible for many aspects of tissue remodelling. Both matrix metalloproteinase type 2 (MMP-2) and matrix metalloproteinase type 9 (MMP-9) are involved in human implantation and placentation. These enzymes play a crucial role in some pathological processes occurring in the early pregnancy. Low activity of MMP-2 and MMP-9 during trophoblast invasion could lead to the development of preeclampsia. Also the process of spontaneous abortion may be mediated by increased activity of MMP-2 and MMP-9.

The aim of the study was the estimation of activity of MMP-2 and MMP-9 in human trophoblast during spontaneous abortion.

Methods: Three specimens of trophoblast from spontaneous abortion at 7th to 9th week of pregnancy were obtained. Another 3 specimens of trophoblast were taken after therapeutic abortion at 7th to 8th week of pregnancy. Tissues were pulverised, homogenised in buffer containing 10 mM CaCl₂ and 0,25% Triton X-100 and centrifuged at 6000 x g. The supernatants (Triton extracts) were stored at 4° C until further examination. The pellets were resuspended in 50 mM Tris buffer containing 100 mM CaCl₂, 150 mM NaCl and incubated for 6 minutes at 60° C. The samples were centrifuged at 20000 x g and dialysed. The activities of MMP-2 and MMP-9 were estimated by the means of substrate zymography and quantitated by the integrated computing densitometer system (One.Descan). Statistical analysis was done using Student's t-test.

Results: The activities of MMP-2 and MMP-9 in Triton extracts were negligible except one case of spontaneous abortion. The estimation of MMP-9 activities in heat extracts revealed statistically significant difference between cases of spontaneous abortion and therapeutic abortion ($9,98 \pm 7,16$ OD vs. $0,77 \pm 1,18$ OD, $p=0,01$). Also the activities of MMP-2 were higher, although not significantly, in spontaneous abortion group ($3,46 \pm 3,52$ OD vs. $0,69 \pm 0,92$ OD, $p=0,09$).

Conclusion: MMP-2 and MMP-9 could play important role in the pathophysiology of spontaneous abortion.

USE OF MATHEMATICAL TECHNIQUES FOR PROGNOSIS OF LARGE FETUS WEIGHT IN THE THIRD TRIMESTER OF PREGNANCY

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Aim: prognosis of intrauterine fetus weight in case of macrosomia in the third trimester of pregnancy in order to optimize date and method of birth.

Methods: ultrasonography of fetus in the third trimester of pregnancy with biparietal diameter (BD), femur length (FL), abdominal circumference (AC), transverse heart diameter at the level of four chambers (THD) measurements. Ultrasonography was performed with the use of linear array transducer 3,5 MHz from Aloka-650 and convex transducer 5 MHz. The results were processed using statistics analysis methods with the help of ECM. Construction of prognosis model was performed by linear multiple regressing analysis. Applied programmes «Statgraphics» were used for calculation. Transverse heart diameter 40 mm and greater is the diagnostic criteria of large fetus ($p<0,001$).

Results: with the help of regressing analysis the decisive rule of prognosis was created, making possible the evaluation of large fetus weight according to the following formula:

$A = K1 \cdot BPD + K2 \cdot FL + K3 \cdot AC$ where A-biophysical criteria of large fetus prognosis in gr.;

BPD - biparietal diameter of head in mm ($p<0,01$),

FL - femur length in mm ($p<0,05$),

AC - abdominal circumference ($p<0,05$),

K1, K2, K3 - coefficients.

Conclusion: decisive rule of prognosis permit to determine intrauterine fetus weight in macrosomia with high degree of reliability ($R=0,98$). Choosing of optimal date and method of birth decreases risk of trauma for mother and newborn.

ANTIGONADOTROPIC EFFECT OF HIGH DOSES CYPROTERONE ACETATE

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Objective. To study the therapeutic effect of antiandrogenic preparation Androcur (cyproterone acetate) in patients with severe hirsutism.

Methods. FSH, LH and testosterone levels were determined in blood of 36 patients. Androcur containing 10 and 50 mg cyproterone acetate (CA) was used for the treatment.

Results. A significant decrease of FSH, LH and testosterone blood levels was observed as soon as in 3 months of using 50-100 mg of CA, while CA in a dose of 10 mg resulted in a significant decrease of FSH, LH levels only after 6-month treatment. Antigonadotropic and antiandrogenic effects developed earlier and were more pronounced at the dose of CA 50-100 mg, and after 9 months of treatment LH levels decreased from 6.8 ± 1.6 to 0.3 ± 0.1 IU/l ($p < 0.001$). At the same time no reliable differences was found in the hirsutism dynamics in both groups of patients.

Conclusion. The rise of CA dose is followed by the increase of antigonadotropic and antiandrogenic effect of Androcur. High doses (50-100 mg) CA are advisable to be used in cases of severe hyperandrogenemy and patients with polycystic ovary syndrome.

NEUROTOXIC XENOBIOTICS INDUCE THE ALTERATIONS IN NEUROTRANSMITTER REGULATION OF GONADOLIBERIN CIRCADIAN RHYTHMS

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Objective. Experiments on chronic inhalation of various xenobiotics (toluene, dioxane, formaldehyde) dosed in both maximal permissible concentration and limited chronical range have been carried out on female rats to discover their effects on biogenic amines system in brain structures related to gonadoliberein (GnRH) synthesis and secretion.

Methods. Dopamine, serotonin and their metabolites (3,4-dihydroxyphenylacetic acid and 5-hydroxyindoleacetic acid respectively) content has been determined in preoptic area and medial eminence by HPLC with electrochemical detection.

Results and Conclusion. It has been shown that contents of GnRH and biogenic amines (dopamine and serotonin) that regulate its synthesis and secretion in medial eminence and especially in preoptic area of hypothalamus change in the opposite way in control rats. The low level of GnRH corresponds to a high content of biogenic amines in the morning, the opposite time course being revealed in the evening. Neurotoxic xenobiotics (toluene, dioxane) opposite to formaldehyde cause the disturbance of these normal circadian rhythms of GnRH secretion due to the decrease of dopamine and serotonin, as well as their metabolites, showing the inhibitory effect on the neurons in brain areas investigated.

THE ROLE OF NITROGLICERIN IN OBSTETRICS

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Objective: *Discovery of the nitric oxide role as messenger of smooth muscle relaxation mechanism (myometrium too) is evristical. Several cases of nitroglycerin administration relaxation as a method of choice in removal of remained placenta as well as in cesarean section were described.*

Methods: *To control contractile uterine activity in pregnant women with a pathologic preliminary period, we successfully used sublingual application of Nitrolingual aerosol (Germany) with prolongation of the nitrate effect by the Deponit 5 system (Germany).*

Results: *As little as five minutes after aerosol application tocography revealed a decrease in uterine contraction frequency, duration, and intensity.*

Conclusions: *By effecting post- and preloading and lowering the resistance of spiral arteries, vasodilators provided increased intensity of placenta circulation, which had a great importance for ante- and intranatal care of the fetus and newborn. Rapidness of action onset, minimal risk of side effects development their, narrow spectrum allow to use the drug widely in pregnant with extragenital pathology and abnormal uterus contractility.*

REGIONAL CHEMOTHERAPY AND TRANSCATHETER EMBOLIZATION OF ILIAC ARTERIES IN THE TREATMENT OF ENDOMETRIAL CANCER

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Objective: *to estimate the efficacy of regional chemotherapy and transcatheter embolization in the treatment of patients with endometrial cancer.*

Methods: *regional intraarterial chemotherapy was carried out in 58 patients with endometrial cancer. 37 out of them showed no primary clinical change to the end of the combined radiotherapy and 21 patients had local recurrence after primary treatment. For chemoinfusion cisplatin was administered (120 ml/sqm) into femoral artery by method of Seldinger. Transcatheter embolization was performed in 38 patients with profuse bleeding from uterine tumors. Autoclots, Ivalon, Gelfoam were used for occlusion.*

Results: *63% of patients showed complete or partial regression of the tumor. The common 5-year survival was 53%. Subjective effect - decrease of pains, improvement of health state - was observed in 70% of patients. Bleeding was controlled by embolization in all patients with uterine carcinoma. In 11 patients repeated courses of regional chemotherapy were performed due to partial regression of the tumor or stabilization of the process after the first course of the treatment. It allowed to improve the quality of remission in 6 patients, as well as to increase its prolongation from 12 months to 31.*

Conclusion: *regional chemotherapy is a useful treatment of advanced endometrial cancer. Transcatheter embolization is an effective method of stopping the bleeding in patients with advanced tumor of the uterine.*

CONGENITAL AND PERINATAL INFECTIONS

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A large number of microorganisms is capable of crossing the placenta and infecting the fetus with diverse results. If a mother acquires a primary infection during pregnancy, the outcome may vary from spontaneous abortion to fetal death, premature birth or congenital disease. In addition, some sexually transmitted pathogens and also normal cervical-vaginal bacteria may infect the fetus by ascension from the lower genital tract or by direct contact during delivery.

The adverse outcome may be prevented by detection and treatment in pregnancy or by immunization before or after gestation. In some cases, hygienic precautions and appropriate advice can significantly reduce the risk.

This presentation reviews the current knowledge of the most important viral, protozoal and bacterial infections in pregnancy, their impact on fetus, and the preventive methods offered today.

UTERINE MYOMA: ELECTROCORRECTION OF POSTOPERATIVE HEMODYNAMIC DISORDERS

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Uterine myoma is often accompanied by arterial hypertension (AH), which may become more severe after surgery for the gynecologic disease.

Study objective: *substantiation of intensive electroimpulse therapy (IEIT), as permitting to eliminate hemodynamic disorders in patients with AH after subtotal hysterectomy.*

Methods: *clinical and complex physiologic examination (conjunctival vasoscopy, rheoencephalography, electrocardiography) of 55 operated patients (average age $44 \pm 1,3$ yrs). 28 patients underwent cranial IEIT (consisting of 15-20 procedures - 2-3 daily) 4 weeks after surgery, 27 patients presented control group.*

Results: *IEIT appear to enhance microcirculation, hemocirculation in the brain hemispheres and heart automatism, resulting in stable hypotensive effect (for 8-10 mnth) in patients with mild AH, and benefits for patients life quality. In case of initial arterial pressure higher than 170/105 mm hg, the effects of IEIT last no longer than 3 mnths and require combination with drugs in individually reduced doses.*

Conclusions: *the study demonstrates potentialities and advisability of electrocorrection of hemodynamic disorders after surgical treatment of uterine myoma, using IEIT, as of the alternative to medical therapy of mild AH and means of reduction of medicamental load in cases of moderate AH.*

THE AGE ASPECTS OF PATHOGENESIS OF POLYCYSTIC OVARIES IN PATIENTS WITH NEURO-ENDOCRINE HYPOTHALAMIC SYNDROME IN CONDITIONS OF GOITER ENDEMICIA

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Objective: to study the age aspects of pathogenesis of polycystic ovarii (PO) in the girls with pubertal hypothalamic syndrome (HS) and women with HS.

Methods: the clinical examination of 78 girls aged 18,07±0,29 years and 114 women aged 27,8±1,03 years with neuroendocrine, trofic, vegeto-vascular and others manifestations of HS; ultrasound and hormone investigation (basal prolactin, LH and FSH levels, TSH and thyroid hormones have been conducted). The results of investigation have been calculated by generally accepted methods of variation statistics with the use of Student's criterion.

Results: The PO has been revealed in 35 per cent of girls with pubertal HS. In this group the frequency of perinatal pathology, accompanying hypothyrosis and hyperprolactinemia is reliably higher ($p<0,01$), than in girls without PO. The volume of ovaries and correlation of LH/FSH levels were in reverse correlative dependence on prolactin level. In the group of women of reproductive age PO were revealed in 50 per cent. PO developed more often in women with the beginning of HS in pubertal period. The correlation of LH/FSH in the patients with PO was higher then in the group of comparison, but did not reach "classic" (> 2) values due to hyperprolactinemia.

Conclusions: In the patients with HS risk of PO development increases depending on the duration of disease. Among the risk factors of PO in patients with pubertal HS the perinatal pathology is the most significant, but in reproductive age early hypothalamic dysfunction beginning is the main risk factor. Hyper-prolactinemia in both age groups is associated in certain degree with decrease of thyroid gland function in conditions of goiter endemicia and, in turn, leads to decrease of LH/FSH correlation in the patients with PO.

MANAGEMENT OF ECTOPIC PREGNANCY IN TALLINN CENTRAL HOSPITAL WOMEN'S CLINIC (ESTONIA). HOW TO SWITCH TO MINIMAL INVASION

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During last two years the management of ectopic pregnancy in Tallinn Central Hospital Women's Clinic underwent a considerable change. The majority of cases are treated laparoscopically, by means of direct methotrexate injection or expectantly. The aim of this retrospective descriptive study is to show the trends of management of ectopic pregnancy in our hospital during last two years. To show the trends we divided the mentioned period into four parts – September 1996 – April 1997, May 1997 – December 1997 and January 1998 – August 1998, September 1998 – January 1999. During the whole period 228 patients with ectopic pregnancy were treated in our hospital, 109 (47%) by means of laparotomic approach, 94 (42%) by laparoscopic approach and 19 (8%) by direct methotrexate injection. The same figures by periods: 59 (92%), 2 (3%) and 1 (1,5%) January 1997 – April 1997; 20 (38%), 29 (55%) and 4 (7%); May 1997 – December 1997; 21 (35%), 31 (52%) and 7 (9%) January 1998 – August 1998 and 9 (18%), 32 (64%) and 7 (14%) respectively. The rest 4 cases (2%) were followed expectantly. There were no cases of maternal death related to ectopic pregnancy. There were 2 cases of repeated ectopic pregnancies, 1 after laparoscopic salpingotomy (on contralateral side) and 1 after direct methotrexate injection (on ipsilateral side), which were treated by means of laparoscopic salpingectomy. Besides possessing laparoscopic and ultrasound equipment we believe three more conditions are necessary to facilitate the more conservative and cost-effective management of ectopic pregnancy. They are patients' knowledge about early symptoms of ectopic pregnancy; outpatient department doctors knowledge about modern methods of diagnosis and laparoscopic surgery training of all doctors who take part in duties.

COMPARATIVE STUDY OF PROSTENOON-GEEL & VAGINAL TAMPONS WITH PROSTENON SOLUTION FOR CERVICAL RIPENING AND LABOR INDUCTION

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Objective: To compare the effect of the application of Prostenoon-geel (1mg Prostenonum/dose, KEVELT Ltd, Estonia) (Pg-J) and prostaglandin solution tampons (Sol.Prostenoni spirituosu 0,1%-1ml, Estonia) (Pg-T)

Methods: During a period 1995 May - 1996 May 131 Pg-J and 63 Pg-T were used for the ripening of the uterine cervix and labor induction. The patients were divided into three groups - in the first one only the Pg-T, in the second one only the Pg-J and in the third one both - the Pg-T and Pg-J were used by various indications.

The age of the patients, parity, previous artificial and spontaneous abortions, gestational age, cervical Bishop-score, indications of prostaglandin application, mode of delivery, duration of delivery, time between the last application and onset of labor, data of newborns, hospital stay and adverse effects had been protocolled.

Results: There was no significant difference between 3 groups except the frequency of adverse effects - local itching appeared more often among Pg-T users.

Conclusion: The Prostenoon-Geel is easier to apply than the Pg-T, causes less discomfort to the patients and makes unnecessary an additional vaginal examination (removing the tampon).

FETAL CELLS IN MATERNAL CIRCULATION

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Advances in molecular genetics have led to prenatal DNA diagnosis. Molecular geneticists are currently using either an invasive or noninvasive approach for prenatal diagnosis. The research has been focussed in the last few years on the development of non-invasive techniques which do not harm the fetus. One such approach would be to isolate fetal cells from the maternal circulation.

Several attempts have been made to detect and retrieve fetal nucleated cells including nucleated erythrocytes (NRBCs), leucocytes and trophoblasts in maternal blood. Fetal cells in peripheral maternal blood offer an alternative source for specimens to those obtained by invasive techniques such as amniocentesis, chorionic villus sampling and fetal blood sampling.

The non-invasive recovery of fetal cells has revolutionized fetal medicine and opened up the doors for its possible clinical application. Efforts are currently in the direction of enrichment as well as culturing of the fetal cells, and exploration of their further use in genetic analysis using FISH, PCR and PEP-PCR techniques.

We have developed a new method for non-invasive fetal DNA diagnosis from maternal blood(FDD-MB). We were successful in retrieving NRBCs from maternal blood using a micromanipulator and also in analyzing NRBCs on a single cell level by PCR,FISH and PEP-PCR. This new technique opens up fetal DNA diagnosis from maternal blood during the first trimester of pregnancy to the whole population because there is no risk to the fetus or the mother.

SERUM LIPOPROTEIN CHANGES IN WOMEN OVER THE AGE OF 35 YEARS USING COMBINED ORAL CONTRACEPTIVES

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The reduction of steroid dose has led to the increase in safety of combined oral contraceptives (COCs) use. Since then modern "low-dose" formulations of COCs have been widely recommended not only for young women but also for women of late reproductive age.

Objective: *To evaluate the effect of two COC formulations (30 g ethinylestradiol with 300 g norgestrel and 20 g ethinylestradiol with 150 g desogestrel) on serum levels of lipoproteins and apoproteins in women over the age of 35 years.*

Methods: *45 women within the age interval of 35-49 years were enrolled in the study. Measurement of lipoproteins and apolipoproteins-A1 and apolipoproteins-B was performed at the commencement of the study and after 6 cycles of COCs use.*

Results: *There was a significant reduction in serum cholesterol and LDL-cholesterol levels in both groups. The coefficient of atherogenesis was decreased in both groups as well. There was a significant increase in HDL and apoprotein-A1 serum levels in women who used COC with 20 g ethinylestradiol and 150 g desogestrel ($1,77 \pm 0,15$ and $1,40 \pm 0,11$ mmol/l; $p < 0,05$ and $2,37 \pm 0,14$ and $1,87 \pm 0,15$ g/l; $p < 0,05$ respectively). No increase in triglycerides was detected in this group ($1,46 \pm 0,19$ and $1,45 \pm 0,15$ mmol/l).*

Conclusions: *COC formulation with 20 g ethinylestradiol and 150 g desogestrel has more beneficial effect on antiatherogenic lipoprotein profile as compared to COC formulation with 30 g ethinylestradiol and norgestrel as a progestagen component.*

EFFECTS OF COMBINED ORAL CONTRACEPTIVES ON HEMOSTASIS IN WOMEN OF LATE REPRODUCTIVE AGE

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Objective: *to investigate the effects of combined oral contraceptives (COCs) on hemostasis in women of late reproductive and perimenopausal age.*

Methods: *64 women within the age interval of 35-49 years were accepted to the study. Three different formulations of COCs were used: 20 g ethinylestradiol with 150 g desogestrel, 30 g ethinylestradiol with 150 g desogestrel and 30 g ethinylestradiol with 300 g norgestrel. 13 different parameters of hemostasis including resistance to activated protein C (APC resistance) and presence of Lupus anticoagulant were evaluated at the commencement of the study and after 2 and 6 cycles of COCs intake. The presence of Lupus anticoagulant was detected using tissue thromboplastin inhibition test. Test for identification of the factor V Leiden mutation based on polymerize chain reaction (PCR) was performed as well.*

Results: *There was a significant reduction of APC-ratio in heterozygous carriers of factor V Leiden as compared to women without this mutation ($2,1 \pm 0,1$ and $2,7 \pm 0,1$; $p < 0,01$). The presence of lupus anticoagulant was identified more frequently in women with the factor V Leiden mutation using COCs ($p < 0,01$). There was a significant reduction of APC-ratio in these women as well ($1,7 \pm 0,1$ and $2,1 \pm 0,1$; $p < 0,01$). APC resistance was diagnosed in 3,1% of the participants without the factor V Leiden mutation before the treatment and in 14,1 % - after COCs use ($p < 0,05$). The prevalence of APC-resistance was higher in COC users with Lupus anticoagulant as compared to those without this anticoagulant (25,0% - 8,7%; $p < 0,05$).*

Conclusions: *Apparently APS-resistance and Lupus anticoagulant may be involved in the development of thrombophilia associated with COC use.*

INTERFERON THERAPY OF HERPES VIRUS INFECTION IN PREGNANT WOMEN

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The purpose: determination of efficiency of interferon therapy in pregnant women with herpes infection (Cytomegalovirus, Herpes simplex virus, Epstein-Barr virus).

Methods: The research of parameters of Interferon status, Immune system, hormonal homeostasis, ultrasonic scanning, virusological and bacteriological investigation are lead at 154 patient, treated by (x-2 interferon (viferon)).

Results: The investigation indicated viferon has Interferon - stabilizing, immunomodulating, antioxidant effect and doesn't have complications on the fetus. The reducing of the delivery channel occupation with genital herpes virus in 50% of patients have been revealed. Every newborn had no signs of herpes virus infection and specifically neurological symptoms. Increased level of Interferon-gamma from initial 2.4 to 32 IU can be related to Viferon stimulation of cytokine production. Revealed Immunocorrecting effect of Viferon can be a basis for its use in Mothers and newborns for treatment and prophylactics of the herpes virus infection.

NEW APPROACHES TO TREATMENT OF MIXED VIRUS INFECTION COMBINED WITH AUTOIMMUNE REACTIONS IN GRAVIDAE

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Examination has carried out in 344 gravidae with mixed virus infection (Herpes simplex virus, Cytomegalovirus, Epstein-Barr virus). The patients have screened for specific antiviral antibodies, antibodies to chorionic gonadotropin (hCG) and lupus anticoagulant (LA). We have studied interferon status (IFS) and cellular immunity parameters to select optimum schemes for nonspecific antiviral therapy.

The relationship between activity of autoimmune reactions and reactivation of virus infection were obtained. Antibodies for hCG were detected in 30.8% of patients and LA-in 19%. The research has established that IFS was disordered in all patients. Therapy with use of α -2 Interferon (viferon) has promoted Immune correction and correction of IFS, has decreased activity of autoimmune reactions and has prevented perinatal complications.

PLACENTAL α_1 - MICROGLOBULIN AND FERTILITY α_1 - MICROGLOBULIN IN DIAGNOSIS INTRAUTERINE INFECTIONS

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Objective: To assess the clinical significance placental proteins in diagnosis of intrauterine infection.

Methods: Placental α_1 - microglobulin (PAMG - 1), and fertility α_1 - microglobulin (FAMG) were measured by enzyme immunoassay and solid - phase sandwich method with monoclonal antibodies. The results were processed by variational statistics methods using standard Windows-95 software.

Results: 68 pregnant women were examined at 32-40 weeks. 48 of these presented with intrauterine infection and 20 were controls. A significant increase of fertility α_1 - microglobulin concentration and decrease of placental (α_1 - microglobulin in amniotic fluid and in the blood serum pregnant women in intrauterine infection.

Conclusions: Assessment of placental protein helps define the criteria of diagnosis and prediction of intrauterine infections and predict the child's status at birth.

DIAGNOSTIC AND CORRECTION TREATMENT OF MALE IMMUNE INFERTILITY

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Objective: Study of immune causes of male infertility and new treatment methods is one of the main directions in andrology.

Methods: A total of 378 men of infertile couples was examined according WHO criteria (WHO, 1992). A mixed antiglobulin reaction (direct MAR-test (Belgium)) for immunoglobulin IgG was performed on all samples to detect the presence of antisperm antibodies (ASA). This test was considered positive if more than 10% of spermatozoa demonstrated immunoglobulin attachment. The double-blind treatment was performed during 3 months with 120-mg/day testosterone undecanoate (Netherlands).

Results: Our study detected the immune factor in 15,8% that often went with asthenozoospermia (57,1%) and hypoandrogenia (23,4%). The patients with ASA<60% showed the decrease of MAR-test results until 10-15% after androgen treatment. The patients with ASA 60-100% need the assisted reproduction treatment procedures.

Conclusion: The use of androgen therapy in treatment of male immune infertility is perspective direction and needs further study.

PREVALENCE OF MYCOPLASMA HOMINIS & UREAPLASMA UREALYTICUM IN PREGNANT OF HIGH RISK GROUP

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Objective: to estimate the prevalence of *Mycoplasma hominis* and *Ureaplasma Urealyticum* in pregnant of high risk group.

Methods: Two hundred eighty six pregnant women of high risk groups visiting the City Specialise Centre of the Health and Family Planning in Ekaterinburg were examined for sexually transmitted infections during the period January-December 1998. *C. Trachomatis*, *U. Urealyticum*, *M. hominis*, herpes simplex virus, and cytomegalovirus were identified by the DNA probe assays. Laboratory diagnostics for bacterial vaginosis was carried out by the standard technique (detecting "key cells", microscopic exam of Gram stained smear, amino-test, and pH of vaginal discharges). *Candida spp.* was detected by culture and by microscopic of native preparation with addition potassium hydroxide 10%. Distribution and crude significance testing were made with *t* tests and χ^2 analysis (likelihood ratio and Pearson test) as appropriate

Results: Fifty three of the women were positive for *U. Urealyticum* (18.5%) and 24 for *M. hominis* (8.4%). *U. Urealyticum* was identified as a mono infection in 10 women (18.8 %). *M. hominis* in 2 (8.3%). We made note of high association of the given microorganisms with bacterial vaginosis: *U. Urealyticum* was combined in 45.3%, *M. Hominis* in 79.2% ($p=0002$). The candidiasis accompanied by *U. Urealyticum* in 39 women (73.6 %), by *M. Hominis* in 15 (62,5%).

Conclusions: *U. Urealyticum* being more prevalent than *M. Hominis* ($p=001$). *U. Urealyticum* takes the 3d place after a candidiasis and chlamydial infection, and *M. hominis* takes the 7th place in urogenital infection structure of high risk group pregnant. The frequent combination *M. hominis* with bacterial vaginosis points to an appreciable role of genital mycoplasmas in a genesis of the pathological process. The infection by *U. Urealyticum* has the large bent to independent current in a kind greater enzymatic aggression of *U. Urealyticum*.

THE SIGNIFICANCE OF FETAL ECHOCARDIOGRAPHY AND DOPPLEROGRAPHY OF CEREBRAL VESSELS IN EVALUATION OF INTRAUTERINE FETAL STATUS

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The retrospective assessment of fetal cardiac flow patterns and cerebral circulation parameters with various degree of fetal distress syndrome was made in 150 pregnant women with different obstetrical and extragenital abnormalities. The examinations were done in the 3rd trimester of gestation on «Acuson 128 XP/IO» ultrasound system. The conclusion was made: the type and the degree of severity of fetal condition were determined by the changes of fetal cardiac and cerebral flow:

- For the 1st degree of intrauterine growth retardation (asymmetric type) the increase of fetal left ventricular volume patterns by 20% with no changes in cerebral flow is typical.
- For chronic fetal hypoxia the decrease of volume patterns in both cardiac ventriculums of 20% accompanied by normal or insignificant fall of vascular resistant indices in the middle cerebral artery are common.
- For the 2nd and 3rd degree of intrauterine growth retardation in combination with fetal chronic hypoxia the decrease of volume patterns in both cardiac ventriculums of 25-30% accompanied by the decrease of vascular resistant indices in the middle cerebral artery by 20%.

A COMPARATIVE ASSESSMENT OF UTEROPLACENTAL CIRCULATION IN FETAL DISTRESS SYNDROME

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A retrospective assessment of systolic-diastolic ratio (S/D) of uterine, spiral and umbilical arteries was done in 78 pregnant women with various obstetrical and extragenital pathology. The studies were made in the third trimester of pregnancy on «Acuson 128 XP/IO» ultrasound system. The conclusion was made: systolic-diastolic ratio in both uterine arteries higher than 2.6 in 59% cases were accompanied with the evidence of fetal distress syndrome. The increase of systolic-diastolic ratio in spiral arteries more than 1.9 in 68% cases was seen with the signs of fetal distress syndrome. The increase of S/D ratio in umbilical arteries more than 3.0 were accompanied with the fetal distress syndrome in 78 % of pregnancies. We conclude that complex study of utero-placental circulation could be useful tool for the diagnostics and prognosis of the fetal distress syndrome.

SIGNIFICANCE OF LAPAROSCOPY IN DIAGNOSTICS OF PRECLINICAL RECURRENCE OF OVARIAN CANCER

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Objective: Ovarian cancer is the most frequently cause of death of women with malignant tumors in Russia which is considered not only with diagnostics of advanced ovarian cancer but also belated diagnostics of recurrences.

Methods: 41 patients with ovarian cancer in clinical remission were investigated by ultrasonography (US) and CA-125. Laparoscopy was tried in cases when there are differences between features of CA-125 and US.

Results: Metastasis are observed by biopsy in 25 (86,2%) with increased level of CA-125 and in 4 patients (13,8%) with negative features of US. From 12 patients with normal level of CA-125, but with positive features of US 4 (33,3%) patients have a recurrence. Results are shown in table.

	Patients	Laparoscopy positive	Laparoscopy negative
CA-125>35U/ml (US negatives)	29	25 (86,2%)	4 (13,8%)
CA-125=35U/ml (US positive)	12	8 (66,7%)	4 (33,3%)

Conclusion: For our opinion laparoscopy may be an important criteria of early diagnosis of preclinical recurrences from patients with ovarian cancer if there are differences between levels of CA-125 and US.

LAPAROSCOPY AS METHOD OF EARLY REVEALING OF OVARIAN CANCER

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Objective: It's difficult to diagnosed ovarian cancer in early stages because of unremarkable symptomatology. Than we investigated patients with small pelvic tumors which would be suspicious by cancer of ovary by clinical admission or ultrasonography (US).

Methods: 278 patients with small pelvic tumors in bounds from 2 to 8 cm were investigated by laparoscopy. Age of patients was from 18 to 83 years old. Majority of patients was older 50 years (53%).

Results: From 278 patients in 78,5% cases were revealed tumors of ovaries, in 10,4% - myoma of uteri, in 3,2% - nongynecological tumors and in 7,9% - without pathological features. Malignant tumors of ovary were revealed in 19 patients (6,8%). Borderline tumors of ovaries were diagnosed in 5 patients, cancer of ovaries stage IA according to FIGO clinical staging was observed in 5 patients, in 4 patients - cancer of ovaries stage II, in 3 patients - cancer of ovaries stage III and 2 patients - cancer of tube uterine. It's interesting that 2 patients with negative features of gastrocolic omentum have metastases on diaphragm.

Conclusions: It could be point that laparoscopy is significant method of differential diagnostics of tumors of ovaries.

THIRTY YEARS EXPERIENCE OF A NATIONAL PROGRAM FOR RESUSCITATION OF ASPHYCTIC NEW-BORN INFANTS IN SWEDEN

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In 1970 a national program for resuscitation of new-born infants was established. This has than been revised 3 times last in the year 1997. The fundamental principles of the program has however remained unchanged. These are: Restricted use of oropharyngeal suction, in case of absent spontaneous breathing assisted ventilation is started 30-60 sec after birth by bag and mask ventilation using a soft round face mask and a selfexpanding bag. Assessment of the effectiveness of assisted ventilation is made by recording heart rate. In case heart rate is > 100 beats / min. the ventilation procedure is unchanged and continued until regular spontaneous breathing occurs. Only in cases with persistent bradycardia more than 2 min. after birth ventilation using endotracheal intubation is used..

Study 1: During one year all infants needing resuscitation in Sweden were investigated. Results: Out of 1154 infants with a birth weight > 2,5 kg 971 (86 %) were treated with bag and mask ventilation or cutaneous stimulation only. Endotracheal intubation was performed in 144 infants (13 %). No information on method of ventilation in 1 %. Buffer therapy was given in 105 cases (9%). In all infants (N=1663) the time to onset of regular spontaneous breathing was less than 10 min. in 1042 infants (85 %). Sixty-five infants (4 %) started spontaneous breathing after more than 20 min. Of them 28 died and 23 had long lasting convulsions.

Study 2: Term infants with Apgar score 0-7 at 5 minuets (N=262) were examined. Out of 167 (57 %) had been resuscitated with bag and mask or cutaneous stimulation only. and at follow up 159 (95 %) were alive and normal. Endotracheal intubation was performed in 30 children, 24 (80%) were alive and normal. External cardiac massage was given to 16 infants, 14 of them were alive and normal. Hypoxic ischemic encephalopathi (HIE) degree 2-3 was present in 29 infants and only 8 of them were healthy at follow up. No HIE or HIE degree 1 was present in 185 infants and all but 1 was normal at follow up.

Conclusions: In term infants assisted ventilation using bag and mask in direct connection with birth is effective in the waste majority of term infants. The use of T-tube ventilation has, during the last 10 years replaced bag and mask ventilation in preterm infants and has made endotracheal intubation unnecessary also in these infants.

References: Study 1: Acta Paed. 1992; 81: 739-44, Study 2: Acta Paed. 1995; 84: 927-32

PERINATAL OUTCOMES IN PREGNANCIES WITH PATHOGEN OF CYTOMEGALOVIRUS AND HERPES SIMPLEX DETECTED IN PRETERM PLACENTA

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Objective: 182 cases of women with herpes simplex virus and cytomegalovirus infections were examined to study the peculiarity of their pregnancy, delivery, status of fetus and neonates in comparison with functional condition of fetal placental complex and morphologic changes in afterbirth.

Methods: The morphological study was carried out by: 1. light microscopy; 2. immunohistochemistry, using indirect immunofluorescence with monospecific antibodies; 3. ultramicroscopy.

Results: Signs of HSV infection were detected in 24.5 %, CMV infection - in 15.3 % & combined HSV & CMV - in 61.2 %. It was found, that the HSV & CMV infections results in significant changes such as: characteristic viral inclusions, inflammation, vascular damage.

In our study it promote to decrease of fetal and maternal blood flow in 17,6 %, intrauterine growth retardation in 21,7 %, oligohydramnion in 17,6 %, hydramnion in 21,6 %, placental calcinosis in 54,4 %, intrauterine hypoxia in 29,6 % and infection diseases in newborns in 27,4 %.

Conclusion: All morphological changes of afterbirth oblige to begin the pathogenetic therapy of newborns, which assist to reduce frequency of gravity form neonatal herpes.

PLACENTAL INSUFFICIENCY TREATMENT IN PATIENTS WITH HERPES VIRUS INFECTION

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Objective: To evaluate the efficacy of immunocorrective therapy in complex treatment of placental insufficiency in pregnant women with herpes virus infection (herpes simplex virus infection and cytomegalovirus).

Methods: 77 cases with disease relapses and asymptomatic elimination of virus were examined.

Results: Discovered disorders in immune and interferon statuses allow to prescribe for these patients immunocorrective therapy. For this purpose we have used intravenous injections of immunoglobulin (250 mg/kg) 3 times a day in I, II and III trimesters of pregnancy. We have also used rectal suppositories with viferon (which consist of 150 000 ME alpha-2b interferon) 2 times a day for 5 days since 28 to 34 weeks of gestation. Viferon suppositories consisted of 500 000 ME of alpha-2b interferon have been prescribed 2 times daily after 35 weeks of gestation. Totally we use a 12 week course of weekly viferon.

Conclusions: It was found that this therapy leads to a firm normalization of immune and interferon status in pregnant women with herpes virus infection and improves the effect of complex treatment of placental deficiency in these patients.

A RATE OF PERINATAL INFECTIONS IN THE STRUCTURE OF FETUS MORTALITY

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Purpose: to determine the rate and meaning of perinatal infections in the structure of mortality.

Methods: retrospective analysis of mortality since 1996 up to 1998 in clinical Maternity House №5, Krasnoyarsk.

Results: Basic indexes for the period of 1996-1998: perinatal mortality – 10,11‰, 16,2 ‰, and 13 ‰, intrauterine death fetus – 7,1‰, 12,4‰ and 9,4‰, dead in early neonatal period – 3‰, 3,8‰ and 3,6 ‰ correlatively. Perinatal infections are one of the major reasons of antenatal fetus mortality in 72,7%, 70,5% and 57,9%, severe placenta insufficiency – 46,6%, 47,4%, and 66%, fetus anomaly 85,7% 83,3% and 40% (since 1996 up to 1998 correlatively).

In the lack of perinatal infection tests only morbid anatomist can determine fetus mortality correlation with infections. Hystology after birth study carried extremely important information in this subject.

Conclusions: High rate of infections has been established in the structure of perinatal mortality;

There was revealed a close dependence of this pathology with heavy placenta insufficiency and fetal letalis anomalies.

SYNDROME APPROACH TO DIAGNOSTICS AND TREATMENT OF THE LATE POSTDELIVERY PYO-FLAMMATORY COMPLICATIONS OF ORGANS AND TISSUES OF SMALL PELVIS AFTER DELIVERY AND CESAREAN SECTION

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Objective. To determine clinical syndromes and principles of treatment on the basis of up-to-date diagnostic technologies.

Methods. 88 case histories of the patients hospitalized for 42 days after delivery were analysed retrospectively. These patients underwent transabdominal, transvaginal ultrasonic estimation of small pelvis, hysteroscopy, laparoscopy and diagnostics of endogenous intoxication.

Results. 74 patients were after spontaneous delivery (1st group), 14 patients were after cesarean section (2nd group).

The following clinical variants of the course of a disease were selected in the 1st group: 1) the Systematic inflammatory response syndrome. (SIRS). 26 patients had endometritis in combination with metrophlebothrombosis, 6 patients had only endometritis and 2 patients had endometritis in combination with parametritis; 1 patient had subinvolution of uterus. 2) SIRS in combination with pains in small pelvis. 11 patients had endometritis in combination with phlebothrombosis in small pelvis. 3) Secretions vaginales anormales. 7 patients had secretions containing some blood. 2 patients had inflammatory secretions. 4) Pains in small pelvis. 1 patient had endometritis. 5) Without prevailing clinical syndrome. 12 patients had only endometritis; 6 – subinvolution of uterus. 3 clinical variants were selected in the 2nd group. 1) SIRS. 3 patients had only endometritis. 2) SIRS in combination with pains in small pelvis. 4 patients had endometritis in combination with metrophlebothrombosis. 2 patients had endometritis with a complete sequester of stitches on uterus and abscess of the front abdominal wall. 3) Without prevailing clinical syndrome. 3 patients had endometritis with partial sequester of stitches on uterus.

Conclusions. In case of prevailing of SIRS, SIRS in combination with pains systematic complex intensive treatment was used. In other variants local treatment prevailed. In all cases an outcome was satisfactory without hysterectomy.

EDWARDS SYNDROME: ECHOGRAPHIC PICTURE; PRENATAL SCREENING IN DECREASE OF POPULATION FREQUENCY

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Introduction: Edwards Syndrome (ES) is the second most frequent one among all chromosomal aneuploidies (ChA) after Dawn Syndrome. The population frequency of ES averages 1/7000 newborns.

Objective: To study US-screening efficiency in diagnosis of trisomy +18 in fetuses.

Methods: Accordings to the program of mass US-screening for the period of 12 years (1987-1998) 109453 US examinations in the II trimester, 3329 amniocenteses were carried out, 180 due to ultrasound markers (UM) of ChA.

Results: In total 11 ES fetuses with UM were diagnosed. After prenatal karyotyping of fetuses selected accordings to UM of chromosomal pathology only (mothers age less then 35), ChA were identified in 22 fetuses, 9 of them were confirmed to have trisomy +18. Among all UM identified with ES fetuses the following were the most frequent: omphalocele - 4, VSD - 3, flexor deformation of fingers - 3 and toes - 3; less frequent: chorioid plexus cysts - 2, ventriculomegaly - 2; other abnormalities - solitary detections; IUFR occurred in 6 cases, polyhydramnion-9. Diagnostic value of UM is proposed to be estimated in scores.

Discussion: All identified ES cases in newborns and stillbirthes and prenatally diagnosed and eliminated abnormal fetuses having been analyzed during 1987-1998. ES prevalence in Krivoy Rog was studied on this base. 109027 pregnancies outcomes were analyzed: 7 of them found to have ES (3-refused US-screening) and 7 prenatally revealed ES fetuses were eliminated and identified.

Finally registered population frequency (FRPF) of ES in newborns accounted 1/15575 (0,64:10000). Real prevalence (RP) of ES was 1/5990 (1,67:10000) A comparative analysis of ES frequency in born and eliminated fetuses in Krivoy Rog region and in 9 countries of the world which had been using cytogenetic monitoring for more then 10 years (selections from 9,5 mln pregnancies) showed that FRPF of ES newborns in Krivoy Rog region was less then in South America (1/12178), Spain (1/11040), Netherlands (1/8649), France (1/6317), the USA (1/6198) and greater then in Mexico (1/19660), Israel (1/22128), Hungary (1/11423). The average FRTF came to 1/11423. At the same time the average total RP of ES in countries using cytogenetic prenatal diagnosis accounted 1/5720.

Conclusions: Thus, ES fetuses are characterized by manifestative echographic phenotype, the prenatal screening of which allows 5,5 times ES FRPF decreasing on an average.

RETROSPECTIVE ANALYZE TO STATE THE RESULTS OF TREATMENT AND LABOR OUTCOME WITH INTRAUTERINE INFECTIONS

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Methods: Retrospective research

Results: 201 pregnant women were delivered by cesarean section with intrauterine infections: 86 of them (42,7%) were early diagnosed and took 2 courses of medical treatment, 115 (57,3%) of late infection diagnostic and they took only one treatment course. 75 pregnant women with infections joined the first group and delivered at once; 28,6% of women had prior treatment and were operated by ceserean section. To discuss the outcome of labor one took into consideration the rate of disorder of functional fetus position (ultrasound scanning, CTG, doppler, hormone tests). Fetus retardation was registered more often among pregnant with intrauterine infections - (22,4%); chronicle fetus hypoxsia (44,2%), placental blood flow disorder (52,6%) and hormone alteration (61,3%). A percentage of healthy delivered children in the principle group was 49,5%; in a test group it was 21,6%, ($p < 0,05$). The rate of perinatal brain, destruction of infants were correlatively 74,2% and 56,9%, ($p < 0,05$).

Conclusions: A brief revision of infant's development informs that up-to-date treatment and careful labor management will serve a good deal to perspective child's development complicated with infection.

LAPAROSCOPIC ASSISTED MINILAPAROTOMY IN UTERIN SURGERY

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Objective: Elaboration of new technology in uterine surgery based on laparoscopic assisted median minilaparotomy and combined the benefits of operating laparoscopy and laparotomy and minimized their drawbacks.

Methods: Analysis of surgical intervention performing and observation during postoperative period were based on the study of basic clinical and laboratory data.

Results: There were elaborated the methods of hysterectomy, supravaginal uterine amputation and myomectomy using laparoscopic assisted minilaparotomy. There were performed 100 surgical interventions using this technology. The mean time of radical operations was 100 (5 min, in myomectomy 78 (2 min. The mean blood loss 88 (6 ml and 46 (2 ml, respectively. The mean weight of removed uterus 210 (38 g, the weight of removed uterine fibroids 101 (13 g. Postoperative hospital stay was 6,6 (0,3 and 5,8 (0,2. Intensive care and narcotic analgetics were not required. No complications were registered.

Conclusion: There were elaborated new technology of uterine surgery which can be worthy of its own place in operating gynecology after its wide approbation.

THE SPREAD OF HPV AMONG YOUNG WOMEN WITH CERVICAL PATHOLOGY

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Objective: To study spread level of HPV 16/18 types among sexual active young women with different cervical pathology.

Subjects and method: From October till November 1998 we examined 80 women at the age of 15 - 24 with histology and colposcopy veriflicated diagnosis cervical pathology: 69 cases (86,3%) of ectopia, 9 cases (11,2%) of CIN 1-2, 2 cases (2,5%) of endometriosis. HPV-DNA typing of cervical scrapes was done by polymerase chain reaction technique (PCR).

Results: Positive results of HPV-DNA test were in 14 cases (17,5%): 7 out of 9 with CIN 1-2 (77,8%), 7 out of 69 with ectopia (10,1%).

Discussion: The results show HPV 16/18 is widespread among sexual active young women with different cervix pathology. The presens of this type infection in patients with CIN pathology was higher then in patients with ectopia.

Conclusion: The data obtained in result could be useful for the formation of clinical groups for HPV testing and used in a second time prophylaxis of cervical cancer.

PREOPERATIVE PREPARATION WITH USING OF THE ZOLADEX IN COMBINED TREATMENT OF UTERINE MYOMA IN WOMEN WITH INFERTILITY

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Objective: the study of the efficiency of the Zoladex in combined treatment of uterine myoma in women with infertility.

Methods: Zoladex was used during 4 months as a preoperative preparation of 73 infertile women with the uterine myoma. The control included 38 patients with infertility and uterine myoma. To them was performed myomectomy without any medicament preparation. Both groups were compared according to the clinical data and the sizes of myomata (diameter varied from 4 to 8 cm). Results: In Zoladex group the diameter of myomata reduced in average by 30%. All patients underwent myomectomy under laparoscopic conditions. Operative interventions in the main group were performed in a 1 -3 weeks after the 4th injection of Zoladex. It was found that the duration of the main steps of laparoscopic myomectomy: enucleation of myomata, coagulation of myoma's bed was shorter in the main group. Blood loss in the main group was in average 120 ml. and in the control one 160 ml ($P < 0.005$). Difficulties in identification of the capsule in the process of enucleation of myomata were found in 11 (15.4%) women of the main group and in 5 (13,2%) of the controls. No postoperative complications were noted.

Conclusion: Zoladex is an efficient means for preoperative preparation of women with uterine myoma. Difficulties in identification of capsules in enucleation of myomata may not be caused by depot-preparations use but by some other reasons, maybe by the nature of myomata growth.

ECOLOGY AND PERINATOLOGY

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Objective: Dynamic assessment methods improvement in high-risk pregnant. Complex of prophylactic measures development aimed to create optimal conditions for in utero fetus development and perinatal pathology decrees.

Methods: vaginal content clinical and microbiology monitoring, pregnant immunological evaluation, placental electronic microscopy scanning, neonatal brain neurosonography and computer tomography. Total were evaluated 479 pregnant. Statistic analysis by IBM-computable computer in program "Quattro pro" (Version 4.0)

Results: negative influences of some environmental factors on women health of reproductive age was found out. Later this influence reflects on fetus development of this women. Based on white cell ferments, serum macroglobulin, vaginal content, based on monitoring valuable criteria of pregnancy development and fetus impairment were established. Later this criteria were proved by morphological evaluation of placenta and clinical signs of newborns in perinatal period. Ways of prophylactic of in utero fetus impairment and perinatal pathology were developed.

Conclusions: functional condition of the system "mother-placenta-fetus" monitoring will give veritable data of fetus development and will help to establish prophylactic measures.

NEW APPROACH TO THE COMBINED TREATMENT OF ENDOMETRIAL CANCER

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Objective: one of pathognomistic symptoms in endometrial cancer is an appearance of genital blood-streaked discharge in menopause. Some times the uterine bleeding is so profuse, accompanied by fall of hemoglobin in peripheral blood, that the performance of operative intervention is impossible.

Methods: to obtain hemostasis, we used a method of the uterine arteries embolization. Uterine arteries embolization was performed in 64 patients with endometrial cancer at the first stage of the treatment. Autoclots, Ivalon, Gelfoam were used for occlusion.

Results: in 94% of cases it resulted in complete control of bleeding, and allowed to improve the general state of patients, to normalize blood indices. Later on all patients were operated in the volume of the uterine extirpation with adnexia. In no cases the complications were observed connected with embolization. The operative intervention was accompanied by less blood bleeding, more ablastics. The recurrence rate in this group of patients was 5%, while in the control group it was 12%.

Conclusion: uterine arteries embolization is a reliable method of hemostasis in patients with endometrial cancer. Uterine arteries embolization performed at the first stage of the treatment allows to realize successfully radical programs of the treatment in patients with uterine bleeding.

FACTORS INFLUENCING EMBRYO DEVELOPMENT IN-VITRO

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Objective: The aim of this study was to summarize the results of the experimental data about factors influencing embryo morphology, the cleavage rate and early compactization in our program of assisted fertilization.

Methods: The number of the blastomers, the presence of fragments and early compactization were evaluated through 72 hours after the oocytes retrieval. The next factors were analyzed: the woman age (770 IVF cycles), the ovarian response to the induction of superovulation (1146 cycles), the hormonal ovaries insufficiency (466 cycles), the extent of sperm chromatin condensation (176 cycles) and the sperm morphology (85 cycles).

Results: The rate of embryo cleavage was decreased and blastomers fragmentation was increase with the increase of the woman age. The number of aspirated follicles correlated with improvement of embryo morphology and increased number of blastomers. The high rate of embryo fragmentation and the delay of the cleavage was observed in the women with anovulation. Patients with endometriosis had the reduced number and a severe fragmentation of the blastomers. The embryo development was impaired in women with hyperprolactinaemia. A flow cytometric test was proposed for the evaluation of the extent of DNA deshielding in human sperm nuclei. Patients with abnormal sperm chromatin had less amount of embryos at the advanced stages of cleavage. The early embryo compactization did not depend on woman's age and the number of aspirated follicles. Such parameters of husband's sperm as motility, percentage of morphologically normal and slightly amorphous cells were better in the group of women with early embryo compaction.

Conclusions: Embryo development is dependends on the factors that reflect ovarian response to stimulation; maternal age and ovarian dysfunction influence the embryo quality; abnormal sperm chromatin disturbs cleavage. The early embryo compaction is influenced the sperm quality.

AGE DISTRIBUTION OF CERVICAL CANCER IN SAINT PETERSBURG

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Objective: From 1980 to 1996 years incidence of cervical cancer (CC) decreased from $13,1^0/_{0000}$ to $8,2^0/_{0000}$, increased indices ($9,5^0/_{0000}$) were registered at 1997 year in St. Petersburg. The main aim of our study was to identify the age distribution of cervical cancer (CC) in St. Petersburg at 1997.

Methods: Information about 367 cases of CC at 1997 was presented from the Population based cancer registry of St. Petersburg.

Results: There were no incidence of CC at the age before 15 years old, from 15 to 30 years - $4,7^0/_{0000}$, from 30 to 40 years - $14,9^0/_{0000}$, from 40 to 50 years - $16,9^0/_{0000}$, from 50 to 60 years - $20,1^0/_{0000}$, from 60 to 70 years - $18,0^0/_{0000}$, from 70 to 80 years - $36,1^0/_{0000}$ and older 80 years old - $21,1^0/_{0000}$. Squamous carcinoma was observed in 92,3% cases of CC, adenocarcinoma - in 7,7% cases among women to 50 years old and ones in 9,8% cases among women older than 50 years. Distribution according to FIGO clinical stages of patients with CC to 50 years was: I stage - 32,6% cases, II - 33,1%, III - 23,4% and IV - 10,9%. Distribution according to FIGO clinical stages of patients with CC older 50 years was: I stage - 17,6% cases, II - 19,6%, III - 44,9% and IV - 17,9%. Advanced CC increased from patients older 50 years. 73,6% patients with CC at the age before 50 years were treated by surgery, 30,2% - by surgery and X-ray therapy and 24,5% - only by X-ray therapy. 21,2% patients with CC older 50 years were treated by surgery and X-ray therapy and 63,6% of ones were treated by X-ray therapy only.

Conclusions: Incidence of CC was increased in all ages in St. Petersburg at 1997. The I and II clinical stages were revealed in 66,7% patients to 50 years and till in 37,2% patients older 50 years. Patients to 50 years with CC were treated more frequently by surgery (73,6%) comparing with patients with CC older 50 years who were treated by X-ray therapy (63,6%).

PATHOPHYSIOLOGY OF INCREASED NUCHAL TRANSLUCENCY IN CHROMOSOMALLY ABNORMAL FETUSES

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Objective: In about 80% of fetuses with trisomies 21, 18 or 13 and Turner syndrome there is increased collection of fluid in the neck region that can be visualized sonographically at 10-14 weeks of gestation as increased nuchal translucency thickness. The pathophysiology of this common phenotypic expression of different chromosomal abnormalities is uncertain but there is some evidence that the underlying mechanism may be cardiac failure, possibly due to abnormalities of the heart and great arteries, and altered composition of the skin. The latter may be due to a gene dosage effect of the three, rather than the normal two copies of genes, found in trisomies causing an alteration of the extracellular matrix in the skin or abnormal development of the heart and great arteries.

Methods: We performed a number of studies investigating nuchal skin tissue for extracellular matrix components and lymphatic hypoplasia. We also performed studies investigating cardiac heart failure using molecular techniques and doppler studies by measuring the ductus venosus at 12-14 weeks of gestation. Big vessels were analyzed using light microscopy.

Results: Studies investigating the heart found increased mRNA gene expression of ANP and BNP and reduced mRNA gene expression of Calcium ATPase. Doppler studies of the ductus venosus in chromosomally abnormal fetuses found signs of heart failure like a negative A-wave in chromosomally abnormal fetuses. Studies of great arteries in chromosomally abnormal fetuses found narrowing of the aortic isthmus. Studies investigating components of the extracellular matrix in nuchal skin of trisomic fetuses found overexpression of ECM genes in trisomies or an altered ratio of genes and lymphatic hypoplasia in Turner.

Conclusions: The present data provide some evidence, that chromosomally abnormal fetuses with increased nuchal translucency at 12-14 wks may suffer from transient cardiac heart failure due to narrowing of the aortic isthmus or an altered extracellular matrix of the heart and skin. This could be transient because an increase in the radius of the big vessels leads to a decrease in the vascular resistance by ten to the minus four (equation of Hagen-Poiseuille).

PROBLEMS OF DEFENSE OF RUSSIAN CITIZENS INTERESTS IN PARTNERSHIP OF INSURANCE COMPANIES WITH HEALTH CARE INSTITUTIONS

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Objective: In the period of 1999-2001 to develop and to implement a target insurance program "Safe maternity, strong child" based on the study of social and economic factors, sickness rate statistics in obstetrics, gynecology and paediatrics, health care situation in Saint-Petersburg under new conditions of market economy.

To develop an efficient cooperation to protect interests of citizens and to provide the best service in obstetrics, gynecology and paediatrics with health care institutions network.

Methods: Methods of target program development are based on macroenvironment monitoring. Macroenvironment is a combination of demographic, economical, natural, scientific, technical, medical, ecological, political, cultural and other factors, defining the key indices of sickness rate in obstetrics, gynecology and paediatrics. Information sources used include: state, branch, business statistics and materials; special literature and mass media advertisements. Monitoring was carried out from 1994 to 1999.

Results: 1. Objective indices of sickness rate among the women of child-bearing age and newborns, maternal and infant mortality, negative trends of decreasing population reproductivity in Saint-Petersburg have been obtained. 2. The target program "Safe maternity, strong child" has been developed and implemented into practice. A portfolio of insurance medical programs, providing women, newborns and the children with qualified medical service during all the stages of preparation to and execution of child-bearing and of the child health protection has been created (now the Company has 147 different programs in obstetrics, gynecology and paediatrics). 3. Qualitative and quantitative characteristics - expected results of Program' implementation have been defined. 4. New relationship with Russian and international subjects of insurance and medical service market have been established.

Conclusions: Despite unfavourable economic situation in Russia restricting possibilities of Program implementation in Saint Petersburg, the Insurance Company "Virilis" is planning to obtain concrete indices: 1. 20% decrease of complications of mother and child health during child-bearing among Insured persons (as compared with non-insured). 2. 30% involvement in health insurance (risk of complications) among women in child-bearing and abortion in Saint-Petersburg. 3. Providing with voluntary health insurance in paediatric services: 1 % of Saint-Petersburg children, in clinical examination and prophylaxis: 5% of women in child-bearing age. 4. Creating an efficient system of information and popularization of healthy way of life and family planning, involving 20% of Saint-Petersburg population in child-bearing age. Expansion and activation of partnership with Russian and foreign health care institutions and insurance companies are seen by IC "Virilis" as an important feature of further development of insurance medical services in obstetrics, gynecology and paediatrics.

NEW APPROACHES TO IMMUNOMODULATING THERAPY IN PATIENTS WITH PELVIC ENDOMETRIOSIS

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Objectives: To evaluate efficiency of immunomodulating therapy in patients with pelvic endometriosis.

Methods: 256 patients (21-44 yrs.) with pelvic endometriosis were examined. Diagnosis was confirmed by both laparoscopic and histological methods. Endometriosis was staged according to the revised AFS classification. Control group consisted of 56 healthy fertile women.

Results: Natural killer (NK-) cells activity in patients with I stage endometriosis was less than in the control group by 24.8%, with II stage by 30%, with III stage by 34.6%, with IV stage by 46.3%. When analyzing interferon status parameters a reliable decrease of leukocytes ability to produce a/b and g interferons was found. A new drug, "Cycloferonum" (a/b and g interferons inductor), was used as immunomodulator in complex therapy of endometriosis. After the treatment all patients have increased cytotoxic NK-cells activity up to normal parameters. The leukocytes ability to produce a, b, g - interferons also increased except patients with IV stage of endometriosis. Positive changes of immunological parameters correlated with decreased of endometriosis spreading documented by control laparoscopy. A course of treatment using recombinant $\alpha 2$ -interferon was performed in the absence of potential peripheral blood leukocytes ability to produce a/b- interferons.

Conclusions: Heavy disorders of immune system components regulating the processes of endometrium cells proliferation were revealed in patients with endometriosis. The use of interferons inducers is an important component in combined treatment of endometriosis.

INDICATORS OF INTERFERON SYSTEM IN PATIENTS WITH ACUTE PELVIC INFLAMMATORY DISEASES

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Objective *The aim of the investigation was to study interferon status in 81 patients with acute pelvic inflammatory diseases (APIT)).*

Methods. *Analysis of our story revealed that radical decrease of a- (9-15 times) and g- (10-32 times) interferon production comparing with normal figures is a characteristic form of interferon deficiency. We also investigated indicators of the interferon status depending on etiological agent. Accordingly patients were divided into 4 groups: group 1 - women with bacterial-chlamidial-virus association; group 2 - patients with bacterial-virus flora; group 3 - women with bacterial-chlamidial infection; group 4 - with mixed bacterial flora.*

Results *Analysis of interferon status in different groups allowed to reveal decrease of (a- and g-interferon's indicators in all groups. But more significant depression of a- and g-interferon production was in the 1st group with bacterial-chlamidial-virus association. Level of the serumal interferon in the 4th group with mixed bacterial flora, was found within the normal limits because of low interferon-producing ability of bacterium. However serumal interferon indicators were twice as high in other groups, where bacterial flora was accompanied by chlamidium and viruses, comparing with normal figures. Chlamidium and viruses are likely to stimulate serumal interferon production.*

Conclusions *Thus association chlamidium and viruses with bacterial infection leads to more severe changes of interferon indicators.*

TRANSVAGINAL ULTRASONOGRAPHY AS THE SCREENING METHOD FOR ENDOMETRIAL PATHOLOGY INN POSTMENOPAUSAL WOMEN WITH UTERINE FIBROIDS

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Objective: *The postmenopausal women with uterine fibroids are considered of high risk for endometrial pathology such as hyperplasia and cancer. For early diagnostics in this group the transvaginal sonography may be most effective.*

Methods: *In 40 postmenopausal asymptomatic women with uterine fibroids transvaginal examination was performed in 1998-99. We used ATL-1000HDI (5 MHz) and Acuson Sequoia 512 (5-8 MHz) equipment. Women with abnormal sonographic findings of endometrial had D and C in Department of Gynecology.*

Results: *Abnormal thickness of endometrium more than 5 mm was found in 9 cases. Histopathological examination revealed endometrial cancer in 1 case, endometrial hyperplasia in 3 cases, endometrial polyps in 3 cases and submucosal fibroids in 2 cases.*

Conclusions: *Transvaginal sonographia in postmenopausal women with uterine fibroids is most simple, safe and affective diagnostic test. There are no strong correlative is found between abnormal sonographic findings and histopathological studies.*

PRIMARY HERPES SIMPLEX VIRUS INFECTION IN PREGNANCY OUTCOMES

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Objective: The study of herpes virus infection during pregnancy is necessary because of high rate of perinatal losses and birth of babies with severe brain damages. It's well known that most severe fetal diseases take place in the first episode of genital herpetic infection during current pregnancy.

Methods: We analyzed pregnancy histories of 12868 patients delivered in Center in 5 years period and selected only 6 cases with the confirmed first episode of genital herpes during current pregnancy.

Results: 2 cases of pregnancy terminated by spontaneous abortion in 21 and 26 weeks of gestation. The both fetus had intrauterine growth retardation on 3-4 weeks and generalised herpetic infection. Morphological study of placentas showed it's severe herpetic disease and decompensated form of placental insufficiency. In 4 cases - pregnancy terminated on the 32-40 weeks of gestation. Newborns died on the 7th-40th day of delivery. In all cases, morphological changes had been presented by local and diffuse herpetic meningoencephalitis and in one cases we always found revealed porencephalic cysts.

Conclusion: So, primary herpes virus infection is rare form of infection during pregnancy, but it can lead to severe perinatal outcomes.

ABOUT OF SIGNIFICANS OF THE INDICATORS ENDOTHELIAL DYSFUNCTION IN EVALUATION OF THE CONDITION OF INTRAUTERINE FETUS IN TOXEMIA OF PREGNANCY

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Objective: The aim of the present research was the verification of the dependence between of indicators of the intrauterine fetuses state and the marks of mothers endothelial dysfunction.

Methods: As the marks of the endothelial dysfunction in pregnant women was taken the number of circulating endotheliocytes, von Willebrand factor, tissular stimulator of plasminogen. The presence of hypoxia and fetal grow retardation was revealed by means of ultrasonography and Doppler analysis of maternal-fetal circulation. We studied 185 pregnant women with toxemia of pregnancy in various degrees.

Results: The results of the information processing of the data mode by tracing regressive analysis showed that possessing the indicators intravascular - platelet hemostasis of the pregnant women one can predict the presence of hypoxia and fetal growth retardation in following equations: $Y = -0,6 - 0,003X_1 - 0,01X_2$, where Y - hypoxia of fetus, X_1 - von Willebrand factor (%) and X_2 - presence of endotheliocytes in circulation (N/ml). Apgar's score in the first minute after delivery corresponds to the equation: $Y = 7,64 - 0,018X_1$, in the fifth minute - $Y = 8,16 - 0,014X_1$, where X_1 - is the number of circulating endotheliocytes.

Conclusions: The disturbance of maternal-fetal circulation the development of toxemia of pregnancy is caused to a considerable degree by the endothelial dysfunction.

PATOGENESIS-BASED EFFECT OF MAGNESIUM - SULFATE IN TOXEMIA OF PREGNANCY

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Objective: *The universal significance of magnesium sulfate in the treatment of toxemia of pregnancy doesn't exclude the necessity of the correct pathogenesis - based proves. Nowadays it is believed to be justified to consider the development of toxemia of pregnancy in connection with endothelial dysfunction. That is why the purpose of this research is studying the influence of the treatment with magnesium sulfate on the indicates of intravascular - platelet hemostasis.*

Methods: *101 pregnant women with toxemia of pregnancy have been checked up. The dose of magnesium sulfate (i/v infusions) made 7,5 gr of solid substance by the velocity of infusion 2 gr/hour with the subsequent i/m injections - 6 gr of solid substance at one injection in 4, 4, 4 and 6 hours correspondingly. In the samples of the venous blood before, during and in 24 hours after the treatment the marks of the endothelial dysfunction were defined: the number of circulating endotheliocytes, von Willebrand factor (hard-phase immune-enzyme analysis with monoclonal antibodies), tissular stimulator of plasminogen (photometric method), intravascular platelet aggregation (modified method by Wu and Hoak).*

Results: *It has been stated that magnesium sulfate in toxemia of pregnancy has an obvious protection effect on endothelium. Thus, after the treatment with magnesium sulfate the number of circulating endotheliocytes in women with nephropathy decrease by 2 times, in women with preeclampsia - by 1,7 times with the absence of changes of the levels of von Willebrand factor and tissular stimulator of plasminogen. Intravascular platelet aggregation obviously decreased: in nephropathy I by 12%, nephropathy II - by 18%, nephropathy III - by 23%, preeclampsia - by 22,4%.*

Conclusions: *Thus, the results we got showed that the treatment with magnesium sulfate in toxemia of pregnancy decreases the manifestations of the endothelial dysfunction and, so may be regarded as a pathogenesis - based treatment.*

THE ASSESMENT OF THE REPRODUCTIVE FUNCTION IN WOMEN WITH BONE LOSS

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It is known that cessation of estrogen secretion is well-accepted to have a major role in pathogenesis of bone loss. The aim of the study is to analyses the state of reproductive system of examined patients with osteopenia and great risk for fractures. We examined 150 histories of women patients with osteopenia and great risk for fractures. The average age of patients is $41,2 \pm 0,4$ years. All the women were diagnosed using dual-energy x-ray absorptiometry. Tscore of bone mineral content is $-2,13 \pm 0,07$ SD in the zone L_1-L_4 . The patients have the beginning of menstrual function at age $14,3 \pm 0,2$ year. 6 % of them have disorders of menstrual cycle such as unregular menses, oligomenorrhea. The amount of pregnancies resulted in delivery is $1,8 \pm 0,3$, resulted in abortions is $5,6 \pm 0,05$. The period between pregnancies were short, and 24 % of women have interval between pregnancies resulted in delivery less than two years. The lactation period is $8,3 \pm 0,4$ months. None of the women used hormone contraceptive aids. Menopause begins earlier then usual at $41,4 \pm 0,6$ years. Only 28 % of the patients have physiological menopause. 64% of them have become menopausal after surgical operations such as hysterectomy - 9%, hysterectomy with singl ovarioectomy - 13%, hysterectomy with total ovarioectomy - 42%. Some of the women (8%) suffered from earlier menopausa after mental stress. Endometriosis prevails (76%) among gynecological diseases that caused operation. Myoma presences in 13% cases, cysts of ovarium are more frequent - in 31% of the patients. Only 12 % of the women received hormone treatment or hormone replacement therapy for $5,6 \pm 0,1$ months. According to the study such risk factors of bone loss as frequent pregnancies, long lactation period, early menopause, hysterectomy and ovarioectomy, untreated gynecological diseases have been discovered.

LAPAROSKOPY IN PATIENTS WITH OVARIAN TUMOURS IN ONCOLOGY CENTRE OF WARSAW, POLAND: RESULTS OF TREATMENT

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Since January 1995 to January 1998 in Gynaecological Oncology Department in Warsaw 86 patients with ovarian tumours were operated with employment of laparoscopy.

Methods: Preoperative diagnostic procedure consist of clinical and gynaecological examination, Ca-125 serum level determination and transvaginal ultrasonography. Furthermore, Resistant Index (RI) was estimated in 25 patients during transvaginal USG with colour doppler flow. Ovarian structure was estimated according to Campbell scale.

Results: Kinds of operation

Enucleatio cyst	24
Ovary partial resection	9
Unilateral adnexectomy	32
Bilateral adnexectomy	20
Salpingoneostomy	1
Total	86

Mean diameter of tumours was 6 cm. The biggest serous cyst was 15 cm in diameter. One women with borderline tumour was operated in 12 week of pregnancies. During follow up there no recurrence in none of patients. There were any serious intra and postoperative complications.

Conclusions: 1. Laparoscopy is a method of choice in treatment of benign ovarian tumours, especially in young women, with regards to shorter time of hospitalization and smaller surgical injury 2. In young women in reproductive period sparing operation should be performed enucleatio cyst or unilateral adnexetomy unless first kind of operation is possible with regards to type or size of tumour

THE STUDY OF NEW PROPHYLACTIC APPROACHES IN WOMEN WITH HIGH RISK OF INFLAMMATORY PELVIC ORGAN DISEASES

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Objective. Efficacy of prophylactic parenteral eubiotics in both partners and of local estriol in premenopausal women with intrauterine contraceptive (IUC) was studied.

Methods. 120 women aged 39-53 (mean age $47 \pm 0,3$) using copper containing IUC participated in this study. The women were not diagnosed to have sexually transmitted diseases (STD) and inflammatory pelvic organ diseases (IPOD) or their diseases were treated at the beginning of the study. Of them, 65 women were included into group I. They underwent a course of treatment with SolcoTrichovak. 22 males from these 65 couples were treated with SolcoUrovak. Parallely, all 65 women had a prophylactic treatment with Ovestin used as vaginal ovulae (1 ov. twice a week by 2 month courses with a 1 month interval for 9 months). The patients with contraindications to the above preparations were excluded from the study. The other 55 women formed the control group (II). Neither they no their partners used preventive measures. The both groups were equal in risk factors of STD and IPOD frequency. The women's state control for STD and IPOD was performed in 10 months. The complaints, clinical state, presence of bacterial vaginosis (BV), Chlamydiosis (Ch), Mycoplasma (M), Trichomonosis (Tr), Gonococcal infection (Gn), Candidosis (Cd) were assessed by direct immunofluorescence, cultural and PCR methods. To assess the results we obtained we used parametric (T-Student) criteria as statistic method.

Results. The results obtained in group I were: STD and IPOD clinical signs found 13,8 %, laboratory data: BV - 3 %, Ch - 12,3 %, M - 10,8 %, Tr - 9,2 %, Gn - 3 %, Cd - 9,2 %. Group II data were 41,8 %, 25,5 %, 14,5 %, 14,5 %, 9,1 %, 3,6 %, 18,2 % respectively. IUC were removed in group I in 1,5 % cases while 14,5 % in group II. The statistic reliability in all our cases was $p < 0,05$.

Conclusions. Considering a decreased (by 1-8,5 times) STD and IPOD frequency in prophylactic use of eubiotics and estriol in the premenopausal women with IUC we recommend that the above scheme should be used for both such patients and with STD, IPOD risk, especially for estrogen deficient ones.

EDUCTION OF b2-GLYCOPROTEIN I IN PLACENTAL TISSUES OF WOMEN WITH RECURRENT PREGNANCY LOSS

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Objective: To study the consequence of antiphospholipid antibodies (aPL) on pregnancy complications we investigate localization of b2-glycoprotein I (b2-GP I) in placental tissues of women with recurrent pregnancy loss. Having a regulatory role in blood coagulation, b2-GP I appear significantly related to most frequent complications (thrombosis and fetal loss) in patients with aPL.

Methods: 23 samples of placenta and blood sera of women with repeated pregnancy losses were investigated. Method of fluorescent antibodies in indirect modification with sera of women that were tested on the presence of anti-cardiolipin antibodies on bovine heart was used. For elimination of cross-reacted antibodies to bovine cardiolipin and save antibodies to b2-GP I tested sera were adsorbed by standard cardiolipin antigen. Placenta cryostat sections of women were treated for detecting complement-fixing immune complexes (IC). In parallel after washing, placenta sections were treated by adsorbed sera containing b2-GP I. **Results:** Specific luminescence of IC was detected in 91% of women, aPL – in 78%. Luminescence was detected on membranes of syncytiotrophoblast and on endothelium of chorion vessels. The topographical identity of a luminescence of complement-fixing IC was established with sites of a luminescence, obtained at handling washing placenta sections by adsorbed sera.

Conclusions: We assume presence of the b2-GP I in a structure of IC localized in a placental tissue. Being an antigenic target of aPL, b2-GP I can be immediately connected to development of placental thrombosis.

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Внимание!
Порядок подписки на 1999 год.

1. Переведите в адрес редакции "Журнал акушерства и женских болезней" соответствующую сумму почтовым переводом:

198904, г. Санкт-Петербург, Ст. Петергоф, ул. Суворовская 3/11 "Журнал акушерства и женских болезней", телефон отдела распространения 428-7777.

2. Заполните подписной купон и вместе с квитанцией почтового перевода перешлите в адрес редакции.

3. Оформить подписку на журнал можно также через агентство "Роспечать". Индекс по каталогу 38497.

4. Стоимость подписки на 1999 год (4 номера):

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