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THE ROLE OF NEW TECHNOLOGIES IN TREATMENT OF UTERINE TUBE DISEASES

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EVOLUTION OF REPRODUCTIVE SURGERY

The purpose: to show the basic stages of formation, modern condition, and perspective directions of reproductive surgery development in gynecology.

Object and methods. This report is based on the data of clinical investigations of more than 350 women with tubal – peritoneal infertility. The results of macro-, microsurgical and laparoscopic methods of Fallopian tubes plastics were estimated by means of comparative analysis. The results of transcervical recanalization of Fallopian tubes in case of their proximal occlusion were also evaluated. An addition, we analysed the experimental data of animal investigations (rabbits) and studied available scientific articles.

Results. A reproductive surgery (RS) can be divided into two conditional directions: 1) the surgery of woman's reproductive organs is an operative treatment of different diseases of reproductive system and 2) surgery of infertility. The purpose of RS is preservation and restoration of reproductive system integrality with preservation (restoration) of the main specific functions – fertility, hormonal and sexual functions, and also menstrual cycle. Based on the opinion that fertility – is not an illness, but abnormal condition determined by the different diseases, when the pregnancy becomes impossible, the SR is a surgical treatment of illnesses resulted in the destruction of reproductive function and fertility.

The frequency of delivery after macrosurgical operations on Fallopian tubes was 5%, after microsurgical and laparoscopic operations – 40% and 50%, respec-

tively, after proximal part recanalisation of Fallopian tubes – 36%, after IVF – 25%.

The conclusion. The evolution of SR passed the way from simple operations restored only mechanical recanalisation of Fallopian tubes, the removing of tumors interfered with pregnancy coming to modern high-technology operations with application of precise optical systems, ultraprecise tools and sutural materials promoting restoration of anatomic and functional integrality of reproductive system. Miniinvasive and non-invasive methods – uterine arteries embolisation, focused ultrasonic ablation of uterine fibroid are the modern RS in gynecology.

The experimental (including ours) and the clinical researches in different countries allow to approach the humanity to transplantation of the uterus and its appendages as the vital organs in realization of reproductive function. A lot of ethical, legal, scientific and practical questions is on the way of realization of this stage of SR. Who needs a transplantation of the uterus and ovaries? Is the transplantation in gynecology really necessary? What reproductive organs can be replaced? What are the moral, ethical and legal aspects of transplantation in gynecology? What are the rights of married couples and separate persons in this case? Is the uterine transplantation feasible technically? Is it possible to restore in the future the menstrual cycle and fertility? How much is it? In present time there is more questions than answers.

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SURGICAL TREATMENT OF TUBAL-PERITONEAL STERILITY IN PATIENTS WITH HYDROSALPINX

Objective: the determination of indications and contraindications for reconstructive-plastic surgery of uterine tubes in patient with hydrosalpinx.

Materials and methods. We have operated 159 female patients with tubo-peritoneal sterility, which resulted from existence of hydrosalpinx. All patients were underwent salpingo-oostomy with application of laparoscopic (n=122) or microsurgical (n=47) technique. In 26 cases the microbiopsy of ampullar part endosalpinx of uterine tube with subsequent investigation of its ultrastructure by method of light and electronic microscopy (microscope "Hitachi", Japan) was performed.

Results. There were found no reliable distinctions in results of operations, performed with using of laparoscopic and microsurgical technique. Thus, the frequency of pregnancy occurrence after laparoscopic operations was 30,4% (34 of 112), and after microsurgical – 29,8% (14 of 47; $p > 0,05$). The mean period of time between the operation and pregnancy occurrence after laparoscopy was $5,4 \pm 0,4$ months, and after microsurgical operation – $4,5 \pm 0,5$ months ($p > 0,05$). However, application of laparoscopic technique is more justified, because it allows to reduce intraoperative hemorrhage, the duration of interven-

tion, number of postoperative complications and time of hospital stay.

Conclusion. There were revealed the following unfavourable factors reduced the probability of uterine pregnancy occurrence: hydrosalpinx diameter more than 1 cm, rigid wall of uterine tube, presence of evident adhesive process in pelvic cavity, previous uterine tubes surgery, the age of the patient more than 30 years and duration of sterility more than 5 years. At the

same time the most prognostic value for occurrence of uterine pregnancy is hydrosalpinx diameter and uterine tube thickness. Thus, the frequency of uterine pregnancy occurrence in patients, who had hydrosalpinx over 1 cm in diameter and thick wall of uterine tube didn't exceed 9,2%. At the same time in ultrastructure of hydrosalpinx of these patients there were revealed deep irreversible dystrophic changes, resulted in functional imperfection of uterine tubes.

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THE PECULIARITIES OF PREGNANCY AND LABOR & DELIVERY COURSE IN PATIENTS AFTER LAPAROSCOPIC CORRECTION OF STERILITY

Reproductive health of the woman is the important condition of favorable prospects of each nation. The overcoming of married couple sterility is a question of state importance, but correct management of pregnancy and the choice of delivery method in pregnant after operative treatment of sterility is no less significant.

Objective. To analyse the pregnancy and labor and delivery course in women after laparoscopic correction of sterility.

Material and methods. The analysis of peculiarities of pregnancy and labor & delivery course was carried out in 54 women, became pregnant after laparoscopic treatment of sterility.

Results. Based on laparoscopic surgery data, sterility was caused by following factors: tubal – peritoneal (49,3%), peritoneal (9,6%), complete uterine tubes occlusion (38%), including sactosalpinx (23,4%). A combination of salpingitis with endometriosis was revealed in 28,2%, with uterine fibroma – in 10,4%, with syndrom of polycystic ovaries – in 16,4%, with anomalies of development of uterus – in 5,6%. During laparoscopy there was revealed the adhesive process of different degree by Hulk: I degree – 35%, II – 46%, III degree – 19%. Combined form of sterility took place in 57% of the patients, the combination of 3 – 4 factors was frequently observed. The pregnancy occurred in 6 months after operative treatment in 54% of women, in 12 months – in 31%, and in 18 months

– in 15%. The peculiarities of pregnancy course was: the high frequency of threatened abortion and preterm delivery – 44% in the 1st trimester, 35% – in the II trimester, 21% – in the III trimester; early primary fetoplacental insufficiency – 32%; chronic intrauterine hypoxia – 34%, IUGR – 12%. There were not revealed reliable differences in frequency of OPH gestosis, anemia and others obstetric complications. The frequency of spontaneous abortion in the 1st trimester was 9%. Premature delivery was marked in 35% of the patients. Term delivery took place in 65%. Vaginal deliveries were observed in 62% of cases, cesarian section – in 38%. Among the indications for operative delivery the obstetric indications prevailed (86%), and were connected with fetal distress very often (69%). The common complications of labor were: primary (41%) and secondary (23%) weakness of contractions, progressing intranatal fetal hypoxia (10%). The characteristics was the correlation between the frequency and severity of the complications of pregnancy and labor and delivery and sterility duration, age of the parents, and peculiarities of conservative and operative treatment of sterility before pregnancy.

Conclusions. The women after operative treatment of sterility form the risk group of complicated pregnancy. The frequency of complications correlates with sterility etiological factor, duration of pathological process. It requires the careful pregravidarum preparation and specific pregnancy management from early stages

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ENDOSCOPY IN ART

Laparoscopy and hysteroscopy approaches are taking a leading position in the up-to-date diagnostic and treatment techniques in gynecology and in reproductive medicine, in particular.

Extending and more successful clinical use of ART in recent years makes it significant to evaluate the role of endoscopy and ART for infertility treatment. The only criterion for taking decision is the answer to the

question: Does the use of this or that technique or a combination of them increase the chance of pregnancy occurrence and delivery of a healthy baby?

Basing on our own experience and on literature data

available we are considering how justified the use of laparoscopy and hysteroscopy for diagnostics purposes and surgeries done with these approaches might be to improve the results of ART.

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THE EFFICACY OF LAPAROSCOPY IN ADOLESCENT GIRLS WITH PURULENT PELVIC INFLAMMATORY DISEASE (PID)

Material and methods. The target of medical examination of 98 adolescent girls at the age from 14 to 17 years with purulent PID was to establish the correlation between the clinical signs and the degree of destruction, revealing during laparoscopy. According to the classification of purulent PID all patients were divided into two groups. The first group (I) included 52 girls with complicated forms of purulent PID (tubo-ovarian abscess). 46 patients with simple purulent salpingitis were gathered into the second group (II). The diagnoses of purulent PID was based on the minimal, additional and definitive criteria recommended by the Center for Disease Control and Prevention. Laparoscopy was performed to all patients as definitive criteria. The degree of destruction in upper genital tract was valuated with J.Henry-Suchets' scale.

Results. There was found out that the initial diagnoses was the same with the clinical one only in 48 (50%) patients. The diagnoses of "acute abdomen" was primarily set down in 22 (22,4%). Another 28 (28,5%) girls were hospitalized with the non-inflammatory pathology. The average duration of disease before hospitalization was $18,2 \pm 2,4$ days in group I and $8,4 \pm 1,4$ days in group II ($t=3,36$; $p<0,001$). The main symptom of 64 from 98 (65,3%) patients was lower abdominal pain. Another 10 (10,2%) girls pointed the localization

of the pain in right mezogastrium. The combined localization of the pain in hypogastrium and right mezogastrium was revealed in 13 (13,2%) cases. There were 11 (11,2%) girls which denied any signs of pain. The singular laboratory index, correlating with destruction, was the Erythrocyte Sedimentation Rate (ESR). The average ESR was $19,1 \pm 1,7$ mm/h in group I ($n=52$) and $11,8 \pm 1,2$ mm/h in group II. ($n=46$) ($t=3,34$; $p<0,001$). Laparoscopy was performed to all patients at the period from the 1-st till 11-th day of hospitalization. During the first 3 days it was made to 75 (76,5%) girls. The postponed laparoscopy was performed in 23 (23,5%) cases. The average value of J.Henry-Suchets' index was $17,3 \pm 0,5$ points in group I and $15,3 \pm 1,2$ points in group II. The extent of surgery was varied from sanative to tubectomy, adnexectomy and appendectomy. The average duration of the hospital treatment was $11,6 \pm 0,6$ in the both groups. The revealed peculiarities of the purulent PID in adolescent girls demonstrate the efficacy of diagnosing of this pathology according to the minimal and additional criteria. Seeing the necessity of the performing the postponed laparoscopy in 23,5% cases we consider to be the most efficient its performance during the first 3 days that afford not only to definite the diagnoses but to perform the adequate sanitation of destructed area.

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SURGICAL TREATMENT OF PATIENTS WITH PROXIMAL UTERINE TUBES OCCLUSION

Introduction. Uterine tubes occlusion at the proximal part is one of the causes of the tubal-peritoneal sterility at women. Frequency of proximal tubal occlusion according to various authors averages about 20%.

Material and methods. With the purpose of recanalization of the proximal part uterine tubes we used a set of coaxial catheters, offered by Novy in 1988 (J-NCS-503570, COOK, USA). We operated 27 patients concerning tubal-peritoneal sterility with uterine tubes occlusion at the intramural part. Average age of the pa-

tients was $28,6 \pm 5,7$ years (from 21 up to 42 years). 9 patients (33,3%) was with primary and 18 (66,7%) – with secondary sterility.

Results. Duration of sterility at the moment of the operation was on the average $4,2 \pm 2,03$ years. 2 patients with secondary sterility have had labor in past history, 12 – induced abortions, and 4 – extrauterine pregnancy. 4 patients after induced interruption of pregnancy have developed acute endometritis or salpingo-oophoritis. 15 patients (55,6%) have had the Chlamydia infec-

tion in past history, 11 (40,7%) – acute adnexitis and 4 (14,8%) – acute endometritis. The condition of the uterine tubes was investigated by hysterosalpingography which helped to determine the fact of their impassability and also to reveal a level of occlusion. According to the examination, 11 patients had bilateral obstruction of intramural part of the uterine tubes, 9 – unilateral, 6 – one tube was impassable at the intramural part while the other was affected by hydrosalpinx, and 1 patient has revealed proximal occlusion of single uterine tube.

As a result of the transcervical recanalization of the intramural occluded uterine tubes the given method allowed us to restore the patency of even one uterine tube at 25 patients (92,6%) during the operation. In total the patency of 31 uterine tubes (81,6%) of 38 recanalized tubes was restored. The laparoscopic control has allowed to find out a pathology of the distal parts of the uterine tubes and peritubal area in 12 patients (57,1%), which were not revealed prior to the operation. 6 patients from this group had hydrosalpinx with a diameter from 1 up to 3 cm, and 9 – adhesive process of small pelvis bodies (I-II stage – 6, III-IV stage – 3 cases, classification by J.Hulka). At revealing of the given pathological changes we performed salpingo-ovariolysis, fimbriolysis or neosalpingostomy accordingly in each concrete case. During diagnostic hysteroscopy which was carried out before recanalization of the uterine tubes at 7 patients (29,6%) we revealed intrauterine pathology. 4 patients had endometrial polyps, obliterating orifices of uterine tubes that has required hysteroscopic polypectomy; 1 patient had submucous myomatous node with diameter of 1,5 cm in this connection we made its resection; and 3 patients have revealed intrauterine synechiae. One time the transcervical recanalization has become complicated by uterine tube perforation in its isthmus part,

that at once was revealed by a parallel laparoscopy. The further movement of catheter has been stopped, and a proceeding bleeding was not observed after its extraction. The postoperative period was normal. Among 25 patients, who had even one uterine tube patent with the help of hysteroscopic transcervical recanalization with laparoscopy control, during postoperative supervision (not less than 6 months) 12 patients became pregnant (48,0%), among them 9 cases – uterine pregnancy, and 3 cases – extrauterine pregnancy in the recanalized tube. Four pregnancies have resulted in term labor, 2 patients are observed at the early gestation and in 3 cases there was a spontaneous abortion at the terms of pregnancy from 6 up to 12 weeks. Frequency of the reocclusion of the operated uterine tubes according to the hysterosalpingography in 1 year after the operation has made 46,2%.

Conclusions. Thus, transcervical recanalization of the uterine tubes is low invasive and effective method of treatment of the tubal occlusion at the intramural part, which helps to restore the patency of uterine tubes in 81,6% of cases. The given method is preferable at patients with possible combined affection of the distal and proximal parts of the uterine tubes and also with intrauterine pathology. Results of research show, that frequency of pregnancy at use of the given technique (48%) is comparable to frequency of pregnancy after microsurgical operations (20-50,8%), and also auxiliary reproductive technologies (19,2-65,4%) which economic expenses are many times higher than the cost of the given surgical method. The adverse factors lowering a reproductive outcome at the transcervical recanalization of the uterine tubes, in our opinion, is a presence of accompanying distal pathology of the uterine tubes, adhesive process in the peritubal area and also one uterine tube.

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THE EXPEDIENCY OF MANDATORY COMBINED ENDOSCOPY IN INCREASING OF ASSISTED REPRODUCTIVE TECHNOLOGY EFFICIENCY

Introduction. Evaluation of 168 patients participating in IVF programs was performed depending on the results of combined endoscopic examination and subsequent treatment. The pathology of endometrium was detected in more than half of the cases, while hydrosalpinx was revealed in 20% of the patients, and every tenth patient suffered from endometriosis. The expediency of the approach under the study for preparing the patients for IVF programs has been confirmed. The present study was aimed an evaluation of expediency and efficacy of combined endoscopic examination in preparing for subsequent participation of female patients in IVF programs.

Material and methods. The study involved 168

patients participating in IVF programs in accordance with a standard long-term protocol of ovulation induction from 21st day of 28 days cycle. Depending on ovulation time, volume of preliminary research and correction of detected pathology, the patient population was divided in three groups. Group I consisted of 40 (23,8%) patients, who had undergone a combined endoscopic examination prior to a subsequent IVF cycle. Group II comprised 61 (41,0%) patient with a history of various kinds of endoscopic and surgical treatment directed at correction of the reproductive function. 59 patients from Group III did not have an endoscopic examination.

Results. Besides previous faulty attempts at admin-

istering IVF, the indication for performing a combined endoscopic examination (including hysteroscopy and manipulatory laparoscopy) were clinical and ultrasound signs of pathology in endometrium, a suspicion for the presence of hydrosalpinx or genital endometriosis. During endoscopy, hysteroscopy revealed pathology of endometrium in more than half of the patients (65%), hydrosalpinx – in 20% of cases, and external genital endometriosis in every tenth patient (12,5% of cases). Corrected therapy was given and pregravidary preparatory measures were taken considering the revealed pathology. As a result of subsequent IVF procedures,

gestation occurred in 37,5%, 30,4% and 30,5% of the patients from Group I, II and III, respectively.

Conclusions. Thus, combined endoscopic examination and subsequent correction of pathology are the mandatory stages in preparing of female patients for participation in the IVF programs in the event of preceding gestational failures and revealing of clinical and paraclinical evidences of gynecological pathology. Implementation of this particular approach promotes for an increase in efficacy of infertility overcoming through administration of supplementary reproductive technologies (IVF).

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TRANSVAGINAL ENDOSCOPY: NEW POSSIBILITIES IN OPERATIVE GYNAECOLOGY

Authors have applied the method of transvaginal hydrolaparoscopy (THL) in 108 patients with previous history of tubal surgery and 4 patients with benign ovarian masses and severe postoperative adhesions of peritoneal cavity. THL allows to evaluate the effect of

reconstructive reproductive surgery and determine the tactics of the further treatment of women infertility. Visual control and biopsy of inner surface of ovarian cyst is the informative tool of differential diagnosis of ovarian masses.

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ADHESION PREVENTION IN REPRODUCTIVE SURGERY

Introduction. Adhesion formation in abdominal cavity is one of the leading disease. Adhesion formation after pelvic surgery is the cause of ileus, sterility and chronic pelvic pain. There is no foolproof method to prevent the adhesion constitution. There are some recommendations in the literature to prevent this process: to use crystalloids and colloids after basic operative stage, dosing irrigation the cavity with isotonic solution sodium chloride with heparin, administration of the glucocorticoid.

Design & Methods. The aim of our research is to make the protocol of application and valuation of adhesion barrier INTERCEED and gel INTERGEL effectiveness. The membrane INTERCEED was used after dissection of deep retrocervical endometriosis by laparoscopy in 11 patients, after myomectomy by laparoscopy in 35 cases, and in patients with sterility – in 18 cases. It's known that these types of operations have the high risk of postoperative adhesion constitu-

tion. INTERGEL was performed after laparoscopic adhesiolysis in 10 patients who had 2-4 open surgery before. We have done second-look laparoscopy in 34 cases after 4-6 months.

Results. Adhesion have been found in 6 cases but the intensive of adhesions was lower (number, quality, vascularisation etc.). 1 patient after 2 surgeries and laparoscopic adhesiolysis + INTERGEL was reoperated on 7-th day urgently (ileus). The gel and adhesion were not found.

There were 3 pregnant women after laparoscopic treatment of deep endometriosis + INTERCEED. There were 5 pregnancies after total laparoscopic adhesiolysis + INTERGEL in the patients with peritoneal infertility and 10 pregnancies after laparoscopic myomectomy.

Conclusion. Adhesion barrier is more important in the reproductive surgery. Now there are two kinds of barriers – membrane and gel. These data show the effectiveness and safety of both of them.

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Introduction. In Russia the frequency of fruitless marriages exceeds the established WHO 15% critical level and reaches 17% from total of married couples. Since 1992 the negative yearly accretion of population in Russia is equal of 1,3%. Among the reasons of infertility the female infertility caused by hormonal insufficiency of ovaries occurs in 35-40% of cases. Hormonal infertility is consequence of various diseases of reproductive system and the common element of these diseases is an ovarian insufficiency. Earlier it has been established by us, that normogonadotropic anovulation, as a rule, is not connected with damage of the positive feedback mechanism between ovaries and a hypophysis and it is caused by insufficient secretion of estrogens by a dominant follicle. Finding-out and elimination of ovarian and extragonadal factors leading infringed folliculogenesis in ovaries, have great value for overcoming of hormonal ovarian insufficiency.

Material and methods. For 10 years the laparoscopy was performed in 1423 women of reproductive age with normogonadotropic ovarian insufficiency. Primary infertility took place in 43,4%, secondary – in 56,6% of patients. Duration of infertility varied from one year till 15 years.

LAPAROSCOPY IN DIAGNOSTICS AND TREATMENT OF HORMONAL INFERTILITY

Results. Besides hormonal inspection histological, ultrasonic, immunologic methods of research were used. Minor forms of extra genital endometriosis have been found out in 53,1%, extra genital endometriosis of III – IV stages – at 15,8%, chronic adnexitis – at 22,0%, polycystic ovary syndrome – at 9,1% of patients. Autoimmune oophoritis has been diagnosed at 30,1% of patients by means of a method of a straight-line immunofluorescence. At 45,5% of patients the reason normogonadotropic ovarian insufficiency has been established for the first time. Laparoscopic electrocoagulation of endometrioidal heterotopies has led to restoration of ovulatory menstrual cycle at 34,3% of patients with an extragenital endometriosis. Electrocauterisation of ovaries has promoted the restoration of ovulatory menstrual cycle at 54,9% of patients with a polycystic ovary syndrome. In other cases the laparoscopy has helped to choose the optimal therapy of normogonadotropic ovarian insufficiency.

Conclusions. Thus, the laparoscopy is the important part in diagnostics and therapy of hormonal infertility.

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Introduction. Acute inflammatory diseases of uterine appendages are today medical problem that significantly affect the health of women of child-bearing age. In recent years the number of diseases of this group has increased.

Material and methods. We have analyzed the outcomes of treatment of women at the child-bearing age with the acute inflammatory pathology of uterine appendages that underwent urgent laparoscopic surgery during 1995-2004 years. During this period we performed 528 laparoscopic operations in patients with these pathologic conditions. Most often diagnosis analyzed in our trial were acute salpingo-oophoritis and pyosalpingo-oophoritis complicated by a pelvioperitonitis (342) and formation of encystments of uterine appendages (pyosalpings, pyo-ovarium) (186 cases).

Results. In our trial we observed such laparoscopic

LAPAROSCOPIC SURGERY IN DIAGNOSTICS AND TREATMENT OF SHARP INFLAMMATORY DISEASES OF APPENDAGES OF THE UTERUS

operations as: adhesiolysis -127, salpingo-oophoriolysis – 196, salpingostomy – 14, salpingoectomy – 86, evacuation of pus from ovary -15, oophorectomy – 34, evacuation of salpingo-ovarian abscesses – 24, hemi-oophor- and hemi-salpingectomy – 56. 16 operated patients that had been operated for salpingo-ovarian tumors needed to be operated laparoscopically for elective sanitations of abdominal cavity and monitoring of recovery process.

Conclusions. Our experience have shown that application of laparoscopic surgery in management of patients with acute inflammatory diseases of uterine appendages (salpingitis, adnexitis etc.) provides the adequate operative management and thorough sanitation of abdominal cavity. During the postoperative period it is the method of choice for elective (repeated) sanitations of abdominal cavity as well as for prevention of severe postoperative complications.

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ENDOVIDEOSURGERY IN TREATMENT OF FEMALE STERILITY

Actuality. Sterility in marriage is a special problem of the contemporary medicine. Variety of factors causing sterility and difficulty of pathological mechanisms revealing create necessity of search and improvement of new, more effective methods of diagnostics and treatment for this group of patients. Fallopian and peritoneal factors of sterility are found in about 30% of women suffering from sterility.

Objectives of study. Estimation of advantages of endovideosurgical examination in patients with tubular-peritoneal factor of sterility

Material and methods. We have examined and treated 210 women with sterility using endovideosurgical technologies. Endosurgical operations were performed at the second phase of menstrual cycle and comprised two stages – the diagnostic one and treatment itself. In order to determine uterine tubes patency, intraoperative chromosalpingography was performed. The operation was completed by leaving the microirrigator in small pelvis for subsequent injections of antibacterial and anti-inflammatory medications.

Results of study. As a result of performed study, 35 (16,6%) patients showed irreversible anatomical changes of uterine and appendages and diffused comissures. There were performed comissures removal with mobilization of uterine tubes and ovaries. These patients were prepared for extracorporeal fertilization. In 56 (26,7%) patients, uterine tubes patency was intact, of those 30 (53,5%) had sclerocystosis of ovaries, 11

(19,6%) – small forms of external endometriosis; variation in small pelvis was found in 7 (12,6%) patients, subserous hysterosmyoma – in 8 (14,3%). In case of sclerocystosis of ovaries, both ovaries were exsected, in case of endometriosis, coagulation of focuses and adhesiotomy were performed and in case of subserous hysterosmyoma enucleation of nodes with bed coagulation was carried out. In 119 (56,7%) of examined patients, tubular factor of sterility was diagnosed, of those 45 (37,8%) had significant obstruction of either one or both fallopian tubes, in 48 (40,3%) the tubes were obstructed in ampullary part (hydrosalpinx) and in 26 (21,8%) of women the combination of tubular factor with pathological changes of ovaries and adhesions in small pelvis was observed. Depending on revealed changes, either lysis of peritubal and periovarial comissures or mobilization of fallopian tubes, or their bougienage, or biopsy of ovaries, or their resection or decortication was performed. Besides, comparison chromosalpingography was performed allowing controlling the passage of contrast through uterine tubes. Intraoperative biopsy of ovaries allowed studying their morphological condition and hormonal status.

Resume. Development and implementation of laparoscopic surgery into medical practice has significantly improved identification of causes and underlying mechanisms of female sterility as well as made routine everyday usage of microinvasive surgery for treatment of pathology of reproductive system.

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PARTICULARITIES OF ENDOVIDEOSURGICAL TREATMENT OF FALLOPIAN PREGNANCY

Actuality: optimization of operative methods is one of trends of the modern surgery. This trend is continued by endovideosurgery, the new technology, which provides not only diagnostics, but also treatment of gynecological diseases. This matter becomes especially urgent in emergency gynecological cases, such as fallopian pregnancy. In last 20 years its frequency became 3.7 times higher; 40% of women after surgical treatment of fallopian pregnancy suffers from secondary sterility, 20% – from habitual abortion and 15% – from repeated fallopian pregnancy.

Objectives of study. Estimation of advantages of endovideosurgical treatment of women with fallopian pregnancy.

Materials and methods. The present study is based

upon 212 clinical observations of patients, which emergently underwent laparoscopic operation of fallopian pregnancy in St. Elisabeth Hospital.

The operation of choice was tubectomy using bipolar coagulation of mesosalpinx or with endoligation, or linear tubotomy with thorough aquadistillation of ovum bed (providing that the latter was not more than 25 mm in diameter) and subsequent control of blood level of HCG. The operation is completed by abdominal cavity sanitation with antiseptic solutions, intraabdominal injection of 125 mg of hydrocortisone in 400 ml of physiological solution and diary dose of cephalosporins (in case of comissures in small pelvis) and control drainage of small pelvis.

Results of study. Among the observed patients

25 (12,3%) were women between 16 and 20 y/o, 55 (26,4%) – from 21 to 25 y/o, 79 (34,9%) – from 26 to 30 y/o, 29 (14,1%) – from 31 to 35 y/o, 15 (7,5%) – from 36 to 40 y/o and 9 (4,7%) – from 41 to 46 y/o. 96 (45,3%) patients had no previous deliveries, but 83 (87%) of them had one or more abortions, 100 (47,1%) – one previous delivery and 16 (7,5%) – two previous deliveries. Therefore, 75% of women operated on fallopian pregnancy were under 30 y/o and 45,3% had no previous deliveries. 10 (4,7%) patients suffered fallopian pregnancy after extracorporeal fertilization, 15 (7%) – after artificial insemination and 27 (12,7%) – after microsurgical operations on fallopian tubes. Tubectomy was performed in 193 (91%) patients, linear tubotomy – in 19 (9%) patients. 26 (13,7%) patients

were undergone salpingostomy in contralateral tube or on pregnant one. Besides, 65 (31%) patients were undergone the releasing of tubes from comissures with ovaries, uterus or intestinal loops (salpingolysis). Total blood loss in each case did not exceed 500 ml. Changes of ovaries, varication in small pelvis and small forms of endometriosis found in process of endoscopic examination were taken into account for further conservative therapy aimed at recovery of reproductive function. The average bed-day was 4.0.

Resume. If we take into account the age and reproductive system condition of patients who usually require treatment of tubal pregnancy, such well-known advantages of laparoscopic surgery as microinvasiveness, short postoperative rehabilitation period and excellen-

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DYNAMIC LAPAROSCOPY AS A STAGE OF HOSPITAL REHABILITATION IN PATIENTS WITH TUBAL PREGNANCY

Objective: to study possibilities of dynamic laparoscopy in prevention and treatment of adhesions after surgical treatment of extrauterine pregnancy.

Materials and methods. Dynamic laparoscopy was performed in 70 patients in early postoperative period after extrauterine pregnancy surgery. 15 patients was operated twice (3d and 5th, 3d and 7th days after surgery). Alone dynamic laparoscopy was performed on 3d day after surgery. The laparoscopic approach was made in 30 patients (42,9%) and laparotomic one – in 40 patients (57,1%). The volume of surgery was defined by pregnant uterine tube condition: tubectomy was performed in 32 patients (45,7%), salpingotomy with fetal sac aquadissection – in 22 patients (31,4%), fetal sac stamping – in 16 patients (22,9%). Adhesions were revealed intraoperatively in 40 patients with extrauterine pregnancy (57%). In these patients adhesiolysis was performed besides the basic surgery. To perform dynamic laparoscopy the special titan sleeves (trocar) were used. They were placed in paraumbilical area in

case of laparotomy and instead of laparoscopic trocar in laparoscopy. After operation the sleeve was closed by cap. During dynamic laparoscopy the cap was removed and trocar was input through the sleeve. Dynamic laparoscopy allowed to remove peritoneal exudate, to perform abdominal cavity sanation and chromhydrotubation.

Results. In dynamic laparoscopy adhesions were revealed in 45 patients (64,2%). Repeated dynamic laparoscopy showed the absense of adhesions reorganization. Uterine tube or tubes patency was saved in 51 patients (72,9%). In three months after surgery repeated hysterosalpyngoscopy revealed the same rate of tubes patency. It is significantly higher than in population of patients operated for tubal pregnancy.

Conclusion. Dynamic laparoscopy in early postoperative period is effective method of adhesion diagnostics and prevention in patients after surgery for tubal pregnancy, it contributes to save the reproductive function.

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DYNAMIC LAPAROSCOPY AS A STAGE OF HOSPITAL REHABILITATION IN PATIENTS WITH TUBAL PREGNANCY

Objectives: *Chlamydia trachomatis* infection of the upper genital tract often results in pelvic inflammatory disease (PID), and its sequels include ectopic pregnancy (EP), miscarriage and tubal infertility. This study was aimed to evaluate the rate of *C. trachomatis* detection as well as anti-*C. trachomatis* antibodies in women with EP.

Material and methods. A total of 13 women with

EP were examined. Control subjects (n=38) were drawn from pregnant women with uneventful reproductive history. Sera were analysed for anti-*C. trachomatis* IgG and IgA with the use of indirect solid-phase enzyme immunoassay (ImmunoComb® *Chlamydia trachomatis*, Organics, Israel). Cervical swabs from all the women, as well as biopsies taken from women with EP during surgery, were investigated for *C. trachomatis* making

use of McCoy cell culture and polymerase chain reaction (PCR) (AmpliSens *Chlamydia trachomatis*, Research Institute of Epidemiology, Russia).

Results. Anti-*C. trachomatis* antibodies were detected in 12 of 13 women (92,3%) with EP: IgG – in all the 12 women, IgA – in 3 of them (23,1%). In 8 women (66,7%) IgG were found at high titre ($\geq 1:64$). In two patients (15,4%) with EP *C. trachomatis* was detected in the cervix using PCR: in both sera from those women there were anti-*C. trachomatis* IgG at high titre (1:64), and in one of them IgA were also found. In none of the women was *C. trachomatis* detected in biopsy specimens: chlamydial infection occurring in the past may account for this fact.

In control subjects, anti-*C. trachomatis* IgG were detected in 10 of 38 women (26,3%), with only two of them (20%) – at high titre ($\geq 1:64$). IgA were found in one woman (2,6%); the cervical swab from that woman was shown to be positive for *C. trachomatis*.

Conclusions. The high rate of detection of anti-*C. trachomatis* antibodies in women with EP underlines the importance of this microorganism in the development of this condition. Presence of anti-*C. trachomatis* antibodies, particularly at high titre, may be suggestive of *C. trachomatis* infection of the upper genital tract, current or previous, therefore screening for *C. trachomatis* specific antibodies may be valuable diagnostic and prognostic tool in the management of PID.



THE ALTERNATIVE TECHNOLOGIES IN TREATMENT OF UTERINE FIBROID

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THE USING OF ADHESION BARRIER INTERCEED® IN FUNCTIONAL UTERINE SURGERY

Introduction. Soldering disease of abdominal cavity is an often complication for organ preserved surgical treatment of fibroids. The most perspective and modern principle, providing the high preventive effect, is using of special means, dividing the wound surfaces in postoperative time. There are two kinds of antisol-dering barriers, which can be used in operative gynecology: self-dissolving membranes and liquid phases.

Objective of present research was the evaluation of effectiveness of self-dissolving barrier Interceed® (Gynecare) for myomectomy in patients with fibroids.

Material and methods. Membrane Interceed® (oxidized regenerated cellulose) of standard size was used for patients with fibroid after myomectomy in cases with plural localization of tumor (20 cases). It is known that this intervention has a high risk of forming post-operative solders. Myomectomy by laparoscopy was completed in 7 patients (35%); in 11 cases (55%) intervention was made by means of mini-laparotomy with laparoscopy assistance because of big size, atypical or

intramural localization of nodules. Low localization of large fibroid in 2 cases (10%) needed laparotomy operation. In several cases only a part of membrane was used. Ultrasound control was made on 3d, 5-th и 30-th days after intervention.

Results. During ultrasound control after intervention there were noticed that the membrane Interceed® was not found on 5-th day. In one case on the 6-th day after using Interceed® the patient was secondly intervened due to the suspicion of hematoma in pelvic cavity. Solders in pelvic cavity and in area of postoperative seams on the uterus were not found. The membrane was in the form of thin, transparent, netting pellicle.

Conclusions. Analyzing the received preliminary results and literary sources (Popov A.A., 2002) the using of adhesion barrier Interceed® should be consider as the safe and effective mean for soldering prevention in uterine reconstructive-plastic interventions in women of reproductive age with unrealized fertility.

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OPTIMIZATION OF LAPAROSCOPIC HYSTERECTOMY METHOD IN FIBROIDS SURGERY

Introduction. Hysterectomy is still the most often intervention in gynecology up to present day (Adamyant L.V. et al., 2000). The most often intervention all over the world after appendectomy is hysterectomy (Wattiez A., et al. 2003). Moreover hysterectomy is the most often performed gynecology intervention. In our days the majority of hysterectomies demanding laparotomy can be partly or fully performed by laparoscopic way (Kulakov V.I. et al., 2000).

Objective of present research is optimization of lap-

aroscopic hysterectomy method in surgical treatment of patients with fibroids.

Material and methods. During the period from November 2004 to May 2005, 55 hysterectomies using laparoscopy were performed in department of surgical gynecology of the D.O.Ott Research Institution of Obstetrics and Gynecology RAMS.

Results. There were performed: 34 operations (61,8%) – total laparoscopic hysterectomy (TLH), 4 operations (7,3%) – laparoscopic subtotal hysterecto-

my (LSH), 4 operations (7,3%) – vaginal hysterectomy with laparoscopic assistance, one of which was operations with sling IVS (LAVH and LAVH+IVS), 4 operations (7,3%) – total laparoscopic hysterectomy with colpoperineolevatoroplastics (TLH+KPLP), 9 operations (16,4%) – total laparoscopic hysterectomy (TLH) with second vaginal stage – correction of the urine incontinence by sling IVS or TVT-O and colpoperineolevatoroplastics (IVS/TVT-O+KLP).

The main indications for hysterectomy were the following: fibroids accompanied by uterine bleeding and anemia of patients – 44 (80%), in 26 cases of them fibroids combined with adenomyosis (47,3%) and in 8 cases pain syndrome took place – (14,5%). Plural fibroids were found in 24 patients (43,6%), quick growth and large sizes of fi-

broid – in 10 (18,2%). Adenomyosis manifested by menometrorrhagia and/or pain syndrome was the indication for surgical treatment in 9 patients (16,4%). In 3 patients (5,5%) the indication for hysterectomy was benign ovarian tumor. In one of these three cases it was in combination with fibroid and in another one – with adenomyosis. One patient had recurrent endometrial polyps (1,8%).

Conclusion. Total laparoscopic hysterectomy is the most often intervention in modern fibroids surgery. At the same time Harry Reich (1997) wrote "Laparoscopic hysterectomy is not used in those cases when there is a possibility of vaginal hysterectomy". Vaginal hysterectomy is still the perspective method of operative treatment of benign uterine tumors. It can become a good alternative for laparoscopy methods.

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ENDOVIDEOSURGERY OF BENIGN TUMORS AND TUMOR-LIKE OVARIAN MASS

Background: the questions of operative approach in huge and multi-stage ovarian mass, prevention of recurrence and limited factors for endoscopic surgery remained actual.

Objective. The elaboration of differential tactics of surgery in patient with benign ovarian tumors and tumor-like mass.

Materials and methods. The retrospective analysis of 284 medical histories of operated patients with benign ovarian tumors and tumor-like mass was carried out in Medical Center 122 and Department of obstetrics and gy-

necology of Medical-Military Academy in 2001-2005 yy.

Results. The real ovarian tumors were revealed in 108 patients (38%). The tumor-like mass took place in 176 (62%) patients. Laparoscopic and open surgeries were performed: resection, cystadenectomy, ovariectomy, adnexectomy, hysterectomy and others. Postoperative period after laparoscopic operations passed more favourably.

Conclusion. Endovideosurgery is the "gold standard" of benign ovarian tumors and tumor-like mass surgery both radical and reconstructive.

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EXPERIENCE OF APPLICATION OF DIFFERENT SURGICAL ACCESSSES IN CASE OF COMBINED UTERINE PATHOLOGY

Introductions. In the structure of gynecological diseases combined uterine pathology requiring operative treatment comprises up to 20-30%. The advent of minor-invasive technologies in operative gynecology nowadays makes it possible to maximally adapt the administered operative treatment for a patient, to shorten the time of being at in-patient clinic, to improve the course of post-operative period.

Material and methods. We have analyzed the results of treatment of 807 patients with combined uterine pathology for the period from January 2002 to May 2005. Operative treatment was carried out for the following reasons with the presence of uterine pathology: complicated uterine myoma, adenomyosis, recurrent

menometrorrhagia. The operations were performed with the usage of different accesses. The average age of the patients was $52 \pm 2,1$ years, the average uterus size was 11 weeks (from 5 to 22 weeks).

Results. We have performed 86 (10,45%) laparoscopic-assisted hysterectomies, 9 (1,12%) laparoscopic hysterectomies, 45 (5,6%) vaginal hysterectomies, 165 (20,6%) subtotal laparoscopic hysterectomies, 220 (27,5%) laparotomic total hysterectomy, 282 (35,2%) laparotomic subtotal hysterectomy. The reasons for hysterectomy were cervical pathologies, adenomyosis, the age of a patient. The choice of access was limited by the size of the uterus. In case of enlargement of uterine size of more than 13-14 weeks, laparotomic access

was chosen and the fact that a patient had previous operations did not influence the criteria of the choice of access in most cases. The average operation time after learning to handle endoscopic method was as follows: in case of laparoscopic method – 60 ± 21 mins, vaginal access – 70 ± 20 mins, laparotomic access – 60 ± 31 mins. Thus, time criterion nowadays is not the main factor in the choice of operative treatment access. The average loss of blood was 120 ± 25 ml (from 50 to 900 ml). The main factor in the choice of approach to operative treatment in our case was the obvious advantage of the course of post-operative period in patients who had laparoscopic and vaginal hysterectomies. The average time of being at hospital after endoscopic operations was 6 ± 2 days, after vaginal operation – $6 \pm 0,5$ days, after laparotomy – 11 ± 3 days. The structure of post-operative complications showed obvious advantage of endoscopic operative methods. In case of laparoscopic

access at the stage of learning there were 3 (1,15%) cases of ureter thermic lesion, with no other severe complications. In case of laparotomic operations there were 2 (0,4%) cases of ureter lesion, 12 (2,4%), complications of the wound (seroma, suppuration, stitches), post-operative ventral hernia – 2 cases (0,4%), pelvic hematoma – 15 cases (3%), uterine artery bleeding – 1 case (0,2%), thrombembolia of pulmonary artery – 1 case (0,2%).

Post-operative restoring treatment required more intensive therapy in case of laparotomy.

Conclusions. Thus, nowadays we tend to prefer endoscopic and vaginal methods in operative treatment of combined uterine pathology. The limiting factors are the size of the uterus, sometimes presence of accompanying pathology, previous multiple operations in the abdominal cavity, especially peritonitis, and the experience of the surgeon.

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AN ESTIMATION OF ORGANS PRESERVED SURGICAL TREATMENT OF BENIGN UTERINE AND OVARIAN TUMORS

The purpose of research: an estimation and optimization of organs preserved surgery of benign tumors of uterus and ovary at present time.

Objective and methods. The cohort investigation included all operated patients who had benign tumors of uterus and ovary and was treated in department of obstetrics and gynecology of MMA in 1991 – 1999 and in department of women diseases of NMSC by name of N.I. Pirogov in 1996 – 2004.

A volume of research consisted of anamnesis, bimanual investigation, clinical and biochemistry analysis of blood; also hormones of blood were determined. Qual-

ity of life was determined according to a test SF-36.

Results of research. The results of our researches testify the necessity of expansion of the indications for operations keeping anatomic-functional mutual relations at the patients with uterine fibroid, ensuring menstrual and reproductive functions, and also the necessity of development of new conservative method of treatment of this disease. An importance of "oncological risk" needs for additional estimation in choosing of a operation volume. The new classification was done for preserved organs and conservative operations for uterus and ovaries.

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EVALUATION OF FREE RADICAL PROCESSES IN METABOLISM IN COMBINED HYPERPLASIAS OF THE FEMALE REPRODUCTIVE SYSTEM

Introduction. Free radical metabolic reactions are known to play a major role in the progression of a variety of destructive and hyperplastic processes in living tissues. The goal of the current study was the comparison of function of pro- and antioxidant systems in solitary and multiple benign tumors of female reproductive system organs.

Material and Methods. 56 patients, age 40-45, mean age 41 ± 0.8 years were examined. In 18 patients solitary myomatous intramural nodes, mean diameter 12 ± 4 cm, were found. In other 38 women intramural hysteromyoma was combined with: in 18 patients

(47,4%) with adenomatous and/or adenoid cystic endometrial hyperplasia, in 12 patients (31,6%) with adenomyosis and endometrial hyperplasias, and in 8 (21%) with genital endometriosis (endometrioid ovarian cysts). Infrared spectroscopy studies with FMEL-1 apparatus (Russia) were carried out to evaluate the changes in metabolism. A batch of lyophilized tissue was grinded in agate pounder with 250 mg of KBr monocrystal and molded into tablets. Infrared absorption spectra were evaluated compared to the standard KBr tablet in the comparison channel in spectral range of 400-4000 cm^{-1} .

Results. The results of infrared spectroscopy of the lyophilized tissues of myomas, intact endometrium and plasma in all patients with combined hyperplastic lesions of the reproductive system organs were similar. A stable peak with a wavenumber over 3500 cm⁻¹ was found. The patients with solitary myomas lacked the described peak.

Conclusions. Therefore, cumulation of molecules with oxidized OH-fragments and changes in the balance of OH- and NH-containing compounds is evident in the tissues of reproductive system of patients with combined

hyperplasias. These results indicate that the tissues of reproductive system of females with combined hyperplasias suffer from cascade reactions of oxidative stress, which is characterized by uncontrolled production of free radicals and/or insufficiency of antiradical protection mechanisms. The uniformity of the results of spectroscopy studies of tissues and plasma allows the non-invasive evaluation of free radical processes in patients with combined hyperplasias of the reproductive system. The results of such studies could provide the rationale for pathogenetically-oriented approach to treatment.



THE MODERN APPROACHES IN HYSTERECTOMY

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Introduction. Hysterectomy is the most often intervention in gynecology up to present day. Variety of clinical situation is demanded individual relation in every case. Selection of surgical route at hysterectomy depends on the criteria for intervention, uterine size, accompanying gynecology and somatic pathology, interventions on organs of abdominal cavity in anamnesis, inflammatory diseases of internal genitals and endometriosis.

Objective of research is substantiation of rationality of surgical route at hysterectomy using laparoscopy, laparotomy and mini-laparotomy with laparoscopic assistance.

Material and methods. During the period from January 2004 to May 2005 in department of surgical gynecology of the D.O.Ott Research Institution of Obstetrics and Gynecology RAMS 55 hysterectomies using laparoscopy (1 group) were performed. Comparing groups comprised 50 patients after laparotomic hysterectomy (2 group) and 50 patients after mini-laparotomy with laparoscopic assistance (3 group) that had been performed in 2003-2005.

Results. Mean age of patients 1, 2 and 3 groups is $48 \pm 5,3$; $45,6 \pm 4,2$; $43,6 \pm 7,9$ years old, respectively. Mean duration of operations is 137 ± 33 ; $91,3 \pm 11,6$; $114 \pm 11,2$ minutes. Mean size of removed uterine is $9,2$

TO THE QUESTION ABOUT SELECTION OF RATIONAL SURGICAL ROUTE AT HYSTERECTOMY

$\pm 2,9$; $13,6 \pm 4,1$ weeks of gestation; $317 \pm 12,1$ gramm (mean mass). Mean estimated blood loss is $87,3 \pm 84,3$; 392 ± 57 ; $71,6 \pm 8,1$ milliliters. Mean postoperative inpatient stay is $7,8 \pm 1,3$; $9,2 \pm 1,6$; $6,1 \pm 0,1$ days. In first group postoperative complications comprised 3 cases (5,5%): infiltrate in pelvis, hematoma around stump and cystic-vaginal fistula; 9,4% – in 2 group and 5,0% – in 3 group.

Conclusion. Total laparoscopic hysterectomy is performed if there are following criteria for hysterectomy: uterine endometriosis, relapsing endometrial hyperplasia in combination with fibroids or uterine endometriosis, typical localization of fibroids which size is not exceeding 15 weeks of gestation. Mini-laparotomy with laparoscopic assistance is performed if there are atypical fibroids (cervical, over cervical, intraligamental nodules), large fibroids of any localization, rough fibrotic parametrical changes or decrease of uterine ligament. Traditional laparotomy is necessary to use in cases when uterine size is more than 18-20 weeks of gestation, severe fibrotic processes in pelvis, addition of adjacent organs to pathological processes, malignant diseases of internal genitals, necessary to be seriously intervened, contraindications to laparoscopy in consequence of accompanying somatic diseases.

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TOTAL LAPAROSCOPIC HYSTERECTOMY IN THE GROSSLY ENLARGED UTERUS

Introduction: Avoiding laparotomy by performing laparoscopic hysterectomy, of various types, has been shown to be beneficial in a number of ways. Shorter recovery times, shorter length of hospital stay and convalescence period, and earlier return to work than after abdominal hysterectomy are some of the positive factors cited. However, it is often considered that there is a size limitation of 14-16 weeks' gestation to the feasibility of laparoscopic hysterectomy. Whilst a number

of studies have shown that the laparoscopic-assisted vaginal hysterectomy (LAVH) successfully manages the large uterus, little has been published regarding a total laparoscopic approach.

Objective. To examine the practice and feasibility of total laparoscopic hysterectomy (TLH) for uteri weighing 500g or more compared to other total laparoscopic hysterectomies performed for the management of benign gynecological diseases.

Patients: All patients who underwent total laparoscopic hysterectomy during the period January 2000 to December 2003 were included. Inclusion criteria included all women with benign uterine conditions. Malignant pathologies were excluded from the assess-

ment. Patients who had pelvic floor prolapse treated laparoscopically concurrently with laparoscopic hysterectomy were also excluded. Sixty-nine patients with uterus > 500g were compared to 537 patients with uterus <500g.

Characteristics	Uterus >500g N=69	Uterus <500g N=537
Mean age	47.1 ± 4.7	48.6 ± 6.7*
% C/S	10.1%	14.1%
Prior surgery		
- Laparoscopic surgery	17.4%	25.1%
- Pelvic surgery	22.6	29.7
Endometriosis	1.5%	6.0%
Mean BMI	25.0	23.7*
Post-menopausal	13.0%	20.3%
Preoperative analogues	60.9%	29.4%*
Mean uterine weight	677.9 (500-1500)	200.5 (11-498)*

Intervention. Total laparoscopic hysterectomy by the technic of Clermont-Ferrand.

Results. Patients with enlarged uteri had higher operating times and conversion rates, similar haemo-

globin levels pre and post operatively, similar hospital stays, and lower complications rates compared to patients with non-enlarged uteri.

Procedures

TLH	Uterus >500g	Uterus <500g
+/- USO/BSO	88.4%	97.2%
- Adhesiolysis	20.3%	20.9%
- Other procedure	26.1%	29.8%
Mean hospital stay (days)	3.67	3.65
Mean surgical time (min)	135.8 (60-280)	106.4 (40-330)*

Conversion

Reason for conversion	>500g	<500g
Excessive hemorrhage	0	2
Anaesthetic problems	1	1
Emphysema	0	0
Urinary tract injury	0	1
Bowel injury	2	0
Access/exposure	6	13
Conversions to laparotomy	6	7
Converted to LAVH & laparotomy	0	1
Converted to LAVH only	3	9
TLH (type 4)	87.0%	96.8%*

Conclusion. A laparoscopic approach, by LAVH and TLH, is both feasible and beneficial in patients with enlarged uteri. The higher rate conversion may be as a result of cautiousness and extra vigilance with an operative case known to be of a greater degree of difficulty. Thus increased care with toilette and haemostasis may account for the lesser degree of complications in the group with enlarged uteri, particularly with regards to vault haematomas and infection. Most complications

can be managed intraoperatively without reverting to laparotomy.

Total laparoscopic hysterectomy results in several advantages to patient – decreased hospital stay, and decreased convalescence. The longer learning curve is acknowledged. Once acquired, however, it can be seen from the data that it is safe and has low complication rates that are comparable to traditional laparotomic and vaginal approaches.

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THE SEARCH FOR THE TECHNIQUE OF HYSTERECTOMY IN FEMALES WITH CONNECTIVE TISSUE DYSPLASIA

Purpose. To determine differential etiopathogenic approach of hysterectomy in females to prevent the occurrence of genital prolapse after hysterectomy.

Materials and methods. It has been proved that systemic connective tissue defect may result in the development vaginal and uterine prolapse, elyptosis and descent of the womb alongside with the occurrence of such pathologies as hernias, splanchnoptosis, varicose disease, hemorrhagic diatheses. We performed complex examination of 210 females.

Results. We identified a group of 37 patients who underwent hysterectomy and had manifestations of connective tissue dysplasia (CTD) in the form of genital prolapse. The onset of genital ptosis (descent) and its aggravation were already observed during the reproductive period as the major pathology in 15 females, after uterine amputation – in 18 females and after transabdominal uterine extirpation – in 4 females. These patients underwent transvaginal uterine extirpation (13 cases), transvaginal extirpation of uterine cervix stump (18), and anterior and posterior colporrhaphy combined with perineolevatoroplastics (6 cases). Recurrences of genital prolapse were revealed postoperatively in 8 cases: within the first year – in 1 female, within 2-4 years – in 6 females, after 15 years – in 1 subject. Genital prolapses occurring after transvaginal hysterectomy were found in 3 cases, after anterior colporrhaphy and colpoperineolevatoroplasty in 4 females, after transvaginal extirpation of the cervical stump, anterior colporrhaphy

and colpoperineolevatoroplasty in 1 female. Different manifestations of CTD (in combination from 3 to 10 symptoms and more in each patient) were revealed in all patients. When assessing values of hemostasiogram all patients were found to demonstrate thrombocytopenia, in 26 patients the decrease of collagen-induced and ADF-induced thrombocyte aggregation were revealed. The activity of von Willebrand's factor was markedly reduced in 18 patients, hyperfibrinogenemia was found in 11 patients. Oxyproline excretion in the daily urine test increased two-fold and more compared to normal levels in 29 females. Serum magnesium levels corresponded either to the lowest values or were below normal values. According to the grading scheme of phenotypic and clinical picture of CTD severe forms were revealed in 5 patients, moderately severe forms in 19 patients and mild forms in 13 patients.

Conclusions. The most frequent cause of genital prolapse as well as its recurrence that occur after transvaginal hysterectomy, abdominal extirpation and uterine amputation is the connective tissue defect. To prevent genital prolapse in patients with CTD it is advisable to perform transvaginal hysterectomy with sacro-spinal MESH-vaginopexy. In abdominal hysterectomy it is recommended to perform sacrovaginopexy in such patients to avoid genital prolapse. In recurrent cases of vaginal stump prolapse (uterine cervix) sacro-spinal MESH-vaginoplasty with simultaneous transvaginal stump extirpation (uterine cervix) is indicated.

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ADVANTAGES OF LAPAROSCOPIC-ASSISTED VAGINAL HYSTERECTOMY OVER ABDOMINAL HYSTERECTOMY IN PATIENTS WITH FIBROIDS

Subject matter. Subject matter was the comparative study of laparoscopic-assisted vaginal hysterectomy (LAVH) and abdominal hysterectomy (AH) in patients with 12-22 weeks pregnancy fibroid.

Material and methods. The results of comparative study of laparoscopic-assisted vaginal hysterectomy (134 cases) and abdominal hysterectomy (109 cases) in the patients with a big size fibroid in 2000-2004 yy are presented.

Results. Time of operation was $67 \pm 6,3$ min (AII),

$87,21 \pm 5,6$ min (LAVH), blood loss was $315 \pm 9,6$ ml (AH), $250 \pm 17,1$ ml (LAVH), weight of fibroid was $712 \pm 8,2$ g (AH) and $704,5 \pm 9,25$ g (LAVH).

Conclusion. Laparoscopic-assisted vaginal hysterectomy has the following advantages: minimal traumatization, favorable cosmetic effect, short postoperative and rehabilitation period, absence of complications in the late postoperative period, decrease of the risk of intraoperative complications. The experience accumulated proves the LAVH technique to be reasonable and efficient.

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VAGINAL HYSTERECTOMY- ELECTROSURGERY OR SUTURES?

Objective: to compare procedure time, blood loss, postoperative period of vaginal hysterectomy using sutures versus using an electrosurgical bipolar plasma kinetic generator GYRUS.

Materials and methods. During 2005, we perform 64 vaginal hysterectomies, in patients without vaginal vault prolapse at the age from 36 to 64 years with a following pathology: adenomyosis, fibroid, necrosis of fibroid after embolisation, uterine carcinoma (1A). The sizes of a uterus appear to be 6 -14 weeks of gestation. Patients were dividing in two groups: either electrosurgical bipolar vessel sealer (8, Gyrus PlasmaKinetic SuperPulse Generator) or sutures (56, Vicryl) as the hemostasis technique. In the last group sutures were use for the vaginal repair. Technique of the operation is made by the circumcision of the vagina, anterior and posterior colpotomy. Cardinal, uterosacral ligaments, bundles of uterine vessels, round, utero-ovarian ligaments, uterine tubes are cut and ligate in the standard fashion. In the Gyrus bipolar coagulation use the special Wertheim-like clump. Above-mentioned structures sealed and scissored. Then uterus is morcelated. The vagina is restored by vicryl sutures, in both groups performing high McCall's culdoplasty. Procedure time was defined as time from initial mucosal injection to closure of the vaginal cuff. Blood loss estimated by a method of weigh-in, postoperative period is clinically.

Results. Patients from the first group required administration of narcotic analgesics up to 48 hours. In the second group administration NSAID is quite enough. Duration of the hospitalization for the 3-5 days in the first group and 2-3 days the second. Patients were observed is outpatient department within 2 months. Procedure time in the first group was 53.6 min, for the second group – 28 minutes. Mean blood loss was 60 ml in the bipolar sealer arm versus 130 ml for suture arm. 1 (1,8%) patient of the suture arm experienced right leg pain resolved within 14 days without treatment. 3 (5,3%) patients of the first group was poor healing of vaginal wound that has required local outpatient treatment. There are no complications in the electrosurgical bipolar vessel sealer group.

Conclusions. Vaginal hysterectomy can be performed as standard technique in challenging patients with morbid obesity, significantly enlarged uteri, narrow vaginal canals, without vaginal vault prolapse, a uteri carcinoma (1A). Electrosurgical bipolar plasma kinetics coagulation reduce time of operation, blood loss, postoperative period is practically painless. Generator Gyrus cheaper then LigaSure System almost twice, which makes it more preferably for today.

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THE EXPERIENCE OF LAPAROSCOPICALLY ASSISTED VAGINAL HYSTERECTOMY

Introduction. Surgical laparoscopy has been widely adopted in gynecological practice. The first laparoscopic operation was carried out in our center in 1991. Lately different types of laparoscopic hysterectomy have been applied in surgical gynecology. In our clinic we widely use laparoscopically assisted vaginal hysterectomy, which was first performed here in 1996.

Material and methods. Within the period between 2000 and 2004 we did 68 vaginal extirpations of womb, 28 of them laparoscopically assisted. Laparoscopy stage was fulfilled with the apparatus "Karl Storz" (Germany). Recommendations for the surgical treatment were as follows: prolapse of the womb walls, elongation of the cervix of the uterus combined with myoma, adenomyosis, recurrent hyperplasia of endometrium and cysts of ovaries. The average patients' age is 54 years (varying from 38 to 73). The operation consists of two stages -- laparoscopic and vaginal. Laparoscopy allows performing the division of commissures, excision and coagulation of the centers of endometriosis, ablation

of adnexa of the womb, immobilization of ligaments, dissection and separation of ligaments, immobilization of the womb vessels. All the following stages of the operation are performed traditionally for vaginal hysterectomy.

Results. Compared to the "pure" vaginal hysterectomy the differences are as follows: the usage of laparoscopy reduces traumatization of tissues, and consequently, blood loss during the operation from 300,0 ml to 100,0 – 150,0 ml; patients endure the combined method of surgery much easier which cuts down their post-operation staying in hospital from 12,3 to 6,2 days. The operation time varied between 85 and 160 minutes depending on the intensity of pathology and the surgeon's skills. The post-operation period is characterized by quicker recovery of patients, for anesthesia non-narcotic analgesics were adequately used. Pre- and intra- operational prevention of infectious complications (Metrogil, Cefasolin) proved to be enough, as a rule. In the first three

post-operation days 20% of patients suffered from weaker peristalsis of intestines which was cured traditionally. Complications arising from laparoscopically assisted vaginal hysterectomy have not been registered.

Conclusions. We believe that this method of surgery

should be widely used as soon as hospitals have modern endoscopic equipment and instruments. However, the patient's interests, the surgeon's experience and the concrete operational situation should come first when considering the possibility of applying laparoscopic hysterectomy.

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THE TOTAL LAPAROSCOPIC HYSTERECTOMY – A MODERN ROUTE OF HYSTERECTOMY. IS THERE A BENEFIT?

Objective: Total laparoscopic hysterectomy – a suitable approach to hysterectomy compared to the abdominal way. The aim of this retrospective study is to document the advantage of this technique and to show the complications.

Introduction. Hysterectomy is the most frequent surgery performed on female patients (approximately 70,000 per year in Germany). In more than 90% of the cases, it is indicated for benign disorders. In 1996 about 8% of the operation were done by laparoscopy, in 2002 it was done in about 12% of the cases. Only a very few recent publications focuses on per- and postoperative complications of the total laparoscopic hysterectomy. The advantage of the laparoscopic approach has been mainly associated with a short hospital stay and a quick convalescence. The object of this study was to list the advantage and the complications of the laparoscopic hysterectomy.

Materials and methods. We retrospectively studied

more than 200 cases of laparoscopic hysterectomies for benign disorders between January 2003 and May 2005 in the Klinikum Osnabrueck – Germany. The procedures performed with 110mm trocar subumbilical and 25 mm trocars in the area of Mons pubis. Additionally the manipulator for the uterus (Hohl – Karl Storz) was used.

Results. Due to the total laparoscopic hysterectomy the hospital stay, the operation time, the intra-operative bleeding and rate of complications were reduced compared with the abdominal approach. There were 2 bladder injuries, 1 intestinal injury, 1 injury of the ureter and 1 vesico-vaginal fistula. There was 1 deep venous thrombosis. There was no case of blood transfusion.

Conclusion. The total laparoscopic hysterectomy is a real alternative approach for the hysterectomy. Due to this technique the hospital stay was reduced and the complications are as high as in the other techniques.

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OUR EXPERIENCE OF LAPAROSCOPIC, VAGINAL AND LAPAROSCOPIC ASSISTANCE VAGINAL HYSTERECTOMY

Introduction. Hysterectomy is the most common surgery performed by the gynecologist. There are many indications for hysterectomy and uterus can be removed using any of a variety techniques and approaches including abdominal, laparoscopic, vaginal and laparoscopic assistance vaginal. The modern gynecologic surgeon should have an experience to carry out this surgery by different routes.

In contemporary scientific literature there is no clear place for the various type of hysterectomy. The main aim of paper is to describe our experience of hysterectomy performing by less invasive approaches, to formulate the advantages and disadvantages of each route

and to determine the indications for each of them.

Material and methods. We investigated 601 patients' histories after laparoscopic, vaginal and laparoscopic assistance vaginal hysterectomy. Retrospective analysis included the time of surgery, complications rate, blood loss volume, postoperative time, conversion rate.

Conclusion. There is no "ideal" route for performing of hysterectomy. There is certain indication for each type of hysterectomy based on advantage and disadvantage of each routes, character of pathology, data of history. The most of hysterectomies could be carried out by vaginal approach.



NEW APPROACHES IN PATHOGENESIS AND TREATMENT OF ENDOMETRIOSIS

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OUR EXPERIENCE OF TREATING OF COMBINED FORMS OF ENDOMETRIOSIS USING ENDOSCOPIC METHODS

Introduction. Despite of effective methods of diagnosis and treatment of endometriosis, implemented in recent years, substantiation of surgical tactics and operations performing in cases of combination of genital endometriosis with involvement of the adjacent organs and cellular space still causes many difficulties. The peculiarity of surgical treatment of patients with such combined forms of disease is connected with the need for radical excision of foci and lesions of endometriosis from the affected organs (reproductive organs, bowel wall, bladder), and elimination of the associated fibrosis, with simultaneous preservation of menstrual and reproductive functions and elevation of life quality.

Material and methods. We have analyzed the results of surgical treatment of 204 women with disseminated endometriosis of genitals.

Results. Based on clinical and instrumental findings the following forms of endometriosis were found: endometrioid ovarian cysts (108 patients), adenomyosis in combination with leiomyoma (36 patients), retrocervical endometriosis involving anterior wall of the rectum (56 patients), endometrioid ovarian cysts in combination with adenomyosis, bladder lesions and sigmoid colon lesions (1 patient). The analysis of the results of the surgical treatment has shown that in 164 patients laparoscopic methods had allowed to perform radical elimination of endometriosis. In 12 cases the laparoscopy was diagnostic and required conversion to laparotomy. Twenty-eight patients had a traditional laparotomic access for endometriosis surgery. Radical laparoscopic operations for endometriosis included hysterectomy, removal of endometrioid ovarian cysts,

excision of endometrioid lesions of cul-de-sac Douglas, pelvic peritoneum, uterosacral ligaments, mobilization of rectum (provided that there was no deformation of rectal lumen). The laparotomic operations for endometriosis included hysterectomy combined with resection of the stenosed segment of rectum (27 observations), urinary bladder wall resection (one observation).

From our clinical experience it follows, that in 82% of cases laparoscopic methods succeed in effective treatment of endometriosis, eliminated pelvic pain and hyper- and polymenorrhea, in some cases – restored fertility. In cases of an extensive involvement of pelvic organs in the associated inflammatory and fibrotic changes and detection of deep foci of endometriosis, the prevalence should be given to a laparotomic access to reveal true borders of the process and to simplify the radical surgery.

Conclusions. Due to impossibility to establish the spreading of the process and the extent of pelvic organs damage otherwise, but during the surgery, patients with combined forms of endometriosis require a scrupulous preoperative assessment to define rational surgical tactics, operative access and preparation of intestine and urinary tract to prospective surgical intervention. Because of possible expansion of an operation during its course (temporary colostomy, suprapubic cystostomy, etc.) the patient must be informed of this and give her informed consent. The changed anatomy of the reproductive organs and ones adjacent to them because of endometriosis determine the atypical character of such operations and elevated risk of various intraoperative complications (injury of bladder, ureters, bowel wall, etc.).

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POSTOPERATIVE HORMONAL THERAPY BY BUSERILIN IN THE PATIENTS WITH GENITAL ENDOMETRIOSIS

Subject: Optimization of the postoperative stage of treatment by analogs of gonadoliberein in the genital endometriosis patients (E).

Material and methods. 46 women curing by intranasal buserelin after surgical deleting of visible E foci in peritoneum and ovaries.

Results. The developed algorithm of examination and treatment allows to achieve the proof in 98% of E patients.

Conclusions. It is necessary to keep strictly the sequential steps in E treatment algorithm. A scheduled surgical stage of E treatment should be preceded by the diagnostic screening for revealing the pathogenetic mechanism of dysfunction in hypothalamo-hypophyseal-ovarian system resulting in E development. Hormonal screening can reveal the secondary character of this dysfunction by the thyroid or adrenal genesis, for example. If the surgery is urgent

this screening can be carry out in the postoperative stage.

The second stage is the surgical deleting of all visible E foci. It allows to reduce the whole time of treatment, volume and duration of the subsequent inhibitory hormonal therapy, to decrease negative effects of the hormone large doses on different female extragenital organs and systems. The surgery stage of treatment can be limited or even eliminated (at adenomyosis) if woman reproductive plans are not realized.

The third obligatory stage of E treatment should be the complete turn off hypothalamo-hypophisial system resulting in ovary block and developing of a temporary amenorrhea from endometrium atrophy. Only this allows to achieve the liquidation of the hidden E foci. The drug (gestagens, testosterone derivates, gonadoliberin analogs) is choosing individually with relation to the degree of E, individual portability and possible negative effects. In this position buserilin has one lack – the loss of calcium which may compensated easily.

Criteria of the drug dose sufficiency is not only complete losing of menstruation, but also absence of the hidden cycles showing a complete ovary inhibition.

The temporary appearance of hot flash is the reliable marker of ovary turning off. The time of ovary turning off should not be less than 6-8 months.

The last stage of E treatment is the prophylaxis of its recurrences. For patients, interested in the subsequent pregnancy, the prophylaxis is achieved by restoring of ideal menstrual cycles. Monophasic COC provides as the prophylaxis of hyperplastic processes, as the contractions for majority other women. Hyperprolactinemy is the contraindication for COC. The restoring of menstrual cycles by selective doses of dopamin agonists in these patients is the prophylaxis of the E recurrences, but does not provide the contraceptive effect. The contraception must be non hormonal for these women. For the patients with a thyroid or adrenal genesis of E is necessary the corresponding hormonal therapy starting from the diagnosis installation.

The prophylaxis of any hyperplastic processes must last until the end of reproductive period of life. The age turn off of the ovarian function eliminates a hormonal basis of these diseases. In some transition age women (after 45 years) medicamental pseudomenopause can accelerates the beginning of the natural menopause.

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PERITONEAL ENDOMETRIOSIS AND INFERTILITY – INTERCONNECTION OF PATHOGENETHICS PROCESSES

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

Methods. Laparoscopy, biopsy of endometrial and peritoneal samples with/without endometriosis, aspirat of peritoneal fluid with/without endometriosis, organotypic culture of endometrium and peritoneal samples into diffusion chambers with millipore filters implanted subcutaneously to ovariectomized rats and substitution therapy with sex steroids, light and scanning electron microscopy.

Results. In peritoneal endometriosis and deficiency of the ovarian function in secretory phase of the cycle endometrium has pathological condition in both structural level (defective modifications of glands, stroma and vessels) and ultrastructural level (deficiency of secretory transformation of the microrelief of endometrial epitheliocytes – persistence of microvilli and cilia). At total damage of the endometrium epitheliocytes the uterine infertility arises. Mosaic damage of a microrelief leads to formation of heterogenous structure of preovulatory endometrium at which implantation of blastocyst

in the given cycle is possible, but in the further there is a high risk of pregnancy loss. At the beginning of menstruation viable cells with microvilli and cilia are kept in endometrium. These cells have increased adhesive potential, high proliferative activity and ability to survive heterotopically for a long time. Deficiency of the ovarian function is the reason of retrograde menstruation. In case of retrograde reflux in peritoneum cavity of the endometrium' aggressive cells with the raised ability to intercellular interactions, invasion and ectopic proliferation the peritoneal endometriosis is formed. Active spots of endometriosis maintain ovarian deficiency and establish conditions for uterine infertility.

Conclusions. Peritoneal endometriosis and associated infertility are pathogenetically interconnected. Chronic deficiency of the ovarian function forms the basis of these pathogenic processes. The persistence of microvillous relief of endometrial epitheliocytes in late secretory phase of the cycle in peritoneal endometriosis indicates the deficiency of endometrial secretory transformation, deficiency of the ovarian function and results in a disorder of the ovicell implantation, infertility or pregnancy loss.

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Introduction. Usage of low invasive methods in adenomyosis diagnosis helps to diagnose adenomyosis definitely by histological examination of myometrium samples.

Material and methods. Hysterectomy specimen (n=32), in 24 (75%) cases the adenomyosis was confirmed by pathologic examination. Imitation of transcervical and transabdominal puncture biopsy, pinch and resection biopsy in vitro were performed.

Results:

- pinch biopsy is characterized by low volume of myometrium sample ~1mm³, unavailability to obtain deep located areas of myometrium,
- resectobiopsy is characterized by unavailability to obtain deep located areas of myometrium,

high side thermal necrosis, making 70% of preparation impossible for histological analysis.

- Sensitivity of transcervical puncture biopsy for 5-nodular is 48%, 6-8 nodular – 83%, this method provides possibility to obtain deep located areas of myometrium;
- transabdominal puncture biopsy gets tissue samples from external zones of myometrium, making impossible determine the depth of endometrial invasion. Sensitivity of transabdominal biopsy is 58% for 8-nodular biopsy.

Conclusions. 6-nodular transcervical biopsy – is the optimal method to obtain histological samples confirming adenomyosis.

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Introduction. Ultrasonography (USI) is a routine investigation technique in gynecology. USI – is the only method, which allows to suspect adenomyosis without invasive study. The determining of US features correlation with endometriometrial alteration helps to define specificity and reliability of different US signs.

Material and methods. USI and histological examination findings of 24 patients with urgent nongravid metrorrhage were observed.

Results. Small cystical inclusions in myometrium can't be explained by heterotopy presence, but connected with

THE CORRELATION OF HISTOLOGICAL AND ULTRASONIC SIGNS OF ADENOMYOSIS

fibroid changes of myometrium, and besides the effectiveness of sign reduces while the vascular component rises, because of the diminution of specific volume of fibroid, and inability to recognize separate inclusions in case of diffuse abnormal echostructure of myometrium. Diffuse echostructure discovered at USI is related to muscular tissue edema, most evident at paraheterotopic areas of myometrium. Most effective USI sign in adenomyosis diagnosis was – M-echo visualization at third day after uterine curettage, which reflects basal layer of endometrium and adjacent myometrium hyperplasia.

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Materials and methods. Endometriosis surgery was carried out in 401 patients. Average age was 27,8 and all of them suffered from infertility for 2-5 years while endocrine factor was excluded. Patients were divided into two groups: a) surgical treatment only b) surgical treatment followed by hormonal therapy Gn-RH agonists for 6 months.

Results. Pregnancy rate in patients with endometri-

THE RATE OF PREGNANCY FOLLOWING DIFFERENT TREATMENT OF ENDOMETRIOSIS

osis associated infertility reached 45,2%. It was noted that pregnancy frequency in patients undergoing combined treatment was 18% higher that in patients which underwent only surgical destruction of the nidi. Majority of pregnancies occurred in the first six months following the treatment, after that pregnancy frequency sharply declined.

Conclusion. Two stage treatment (1 – destruction of

the endometriosis nodi, 2 – pharmacotherapy) is pathomorphologically substantiated. First stage envisages destruction of all or most of endometriosis nodi which cause num-

ber of condition leading to depressed generative function, while the second stage inactivates eutopic endometrium which is the constant source of endometriosis.

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Preface. Hormonal therapy is the integral component of complex treatment of all forms of endometriosis. The saved up 20-years world experience shows, that the best results are achieved with GnRH-agonists using, and the basic mechanism of their action is amenorrhea achievement. The mentioned mono- or adjuvant therapy is always coexisting with development of by-effects: the developed picture of climacteric infringements, mental and vegetative frustration. It does impossible and inexpedient carrying out of hormonal therapy during more, than 6-8 months. Frequency of relapse of clinical signs reaches 48% after GnRH canceling within first two years of supervision. Works by Thipgen J.T. et al. (2004) have proved expediency of carrying out of intraperitoneal chemotherapy with doxorubicin and cisplatin in disseminated endometrial cancer management, and also have confirmed efficiency of application intraperitoneal chemotherapy (ICT) with these drugs with the purpose of suppression of growth and resorption activation of endometrial deposits.

Objective. To show expediency of carrying out of ICT with cytostatics in treatment of the widespread endometriosis.

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At a hyperthermal variant it is better to begin the intraperitoneal chemotherapy (ICT) right after performance of a surgical stage. Perfusion is better to carry out by introduction through troacar ports of 2 laparoscopic irrigation tips connected to perfusion system. It's need to provide a horizontal position of the patient, so that the pelvis would be covered with perfusing fluid. An irrigation tip leaves in Douglas pouch, aspirational – collects perfusate from utero-vesical pouch. Perfusion speed is not less than 500 ml/min, perfusing temperature on input – 42°C, duration of perfusion – 30 minutes. The total perfusate amount is 2000-3000 ml in which the

SUBSTANTIATION OF ADJUVANT INTRAPERITONEAL CHEMOTHERAPY IN COMPLEX TREATMENT OF WIDESPREAD ENDOMETRIOSIS (III-IV STAGES)

Material and methods. Carrying out of hyperthermal intraoperative intraperitoneal (ICT) and normothermal postoperative chemotherapy with doxorubicin 60 mg/m² and cisplatin 50 mg/m² at 23 patients with endometriosis III-IV (ASRM staging). Control group – 10 women – adjuvant therapy with GnRH agonists for 3 months

Results. Adjuvant ICT was effective at treatment of the widespread endometriosis and has led to proof positive clinical effect at 93,4% of women within the first year of supervision. Single-staged adjuvant ICT at the widespread endometriosis is not accompanied by development after operation of any by-effects; and performance of second-look laparoscopy at 14 (60,9%) women has shown, that efficiency of ICT is higher, than adjuvant 3-4 month courses of GnRH agonists (Zoladex, Buserelin) and leads to full resorption of endometriosis heterotopies and surrounding infiltration. The use of "soft" modes of CT (30 minutes perfusion of 42°C solutions) was not accompanied by development of adhesive process after operation in any case, and, hence, had no negative mechanical action on fertility patients. The specified variant of therapy did not result in ovulatory function disturbances.

OPTIMAL PROTOCOL OF NORMO- AND HYPERTHERMAL INTRAPERITONEAL CHEMOTHERAPY (ICT) IN COMPLEX MANAGEMENT OF THE WIDESPREAD ENDOMETRIOSIS (III-IV STAGES)

demanded dose of cytostatics is contained. There could be a fractional injection of 1000 ml of warm (42°C) perfusate intraabdominally and its replacement each 3-4 minutes with new portion of warm solution – duration has to be increased up to 40 minutes, we leave drainage for removal of the rests of perfusate.

At normothermal variant – after performance of a surgical stage we place in an abdominal cavity 1000 ml of the saline containing cytostatics dose. In Douglas pouch we leave a drainage not less than 7 mm in diameter which was opened later with 20-24 hours after the primary surgery for removal of the rests of perfusing fluid. Calculation of cy-

tostatics dose is conducted depending on the area of body surface – recommended dose is 60 mg/m² of doxorubicine and 50 mg/m² of cisplatin.

Efficiency of therapy is based on following factors: 1. Direct damaging action of cytostatics doxorubicine and cisplatin on endometrial deposits with activation of the subsequent infiltrates resorbtion. 2. Creation of effective cytostatics concentrations at increasing of perfusate temperature up to 42-45 C on depth up to 5

mm under peritoneum in 30-minutes exposition or at normothermic hydropertoneum within 20-24 hours after a surgical stage; 3. An opportunity of organ-saving surgery performance in management of uni- and bilateral endometriomas (cysts marsupialization with their subsequent internal layer exposition to cytostatics), and also at retrocervical infiltrative endometriosis; 4. Absence of provocation of development of postoperative adhesive proc

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Introductions. Anamnesis and clinical examination helps to determine the signs with high prognostic value for adenomyosis diagnosis, which justify usage of invasive diagnostic technique.

Material and methods. 47 patients were inquired for investigation, in 26 cases adenomyosis was confirmed by 6-nodular puncture biopsy, in 18 – by histological investigation of hysterectomy specimen, 13 – made up the control group.

Results. Inter-group differences were observed of

ANAMNESIS AND MENSTRUAL FUNCTION AT ADENOMYOSIS PATIENTS

age, menorrhage volume, duration of disease, connection of dysmenorrhea begining with life anamnesis, size of uterus, parity, tenderness of uterus. No differences were observed of menorrhage length, number of uterine curettage, menarche age, chronicle pelvic inflammatory diseases. Predictive value of different signs were evaluated.

Conclusions. Indicated clinical signs allow to ground the using of additional methods of patient examination.

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THE ROLE OF CYTOTOXIC CELLS AND INTERFERON SYSTEM IN REGULATION OF PROCESSES OF PROLIFERATION IN ENDOMETRIOSIS

Introduction: Various components of immune system take part in pathogenesis of endometriosis. Their role might be paramount or minor during different periods of the disease. From our point of view, the most important is investigation of immune system in the aspect of immunological surveillance.

Objectives. To study changes of antiproliferative components of immune system in peripheral blood and peritoneal fluid in patients with endometriosis and to work out schemes of pathogenetic immune orientated therapy.

Materials and methods. 546 patients with endometriosis aged 20-44 were examined. The diagnosis was stated during surgery (493 laparoscopies and 53 laparotomies) and proved by the results of histology. The degree of dissemination was determined using R-AFS classification. 43 healthy fertile women were enrolled in control group. To specify the role of immune system in pathogenesis of endometriosis and as a method of control of effectiveness of immunomodulation therapy we prospectively evaluated interferon status and cytotoxic activity of NK-cells in peripheral blood and peritoneal fluid. The evaluation of NK-cells was carried out

by radiometric test, in which cells of erythromyeloid line K-562 marked with Tritium were used as target cells. Interferon status was evaluated by biological test using lung carcinoma cells L-41 sensitive to the virus of vesicular stomatitis as a test culture.

Results. In patients with endometriosis we found a relative decrease of NK-cells' activity in peripheral blood and peritoneal fluid in comparison with control group. Cytotoxic index (CI) of NK-cells had negative correlation with the degree of the disease ($r = -0.46$; $p < 0.01$). CI of NK-cells in peritoneal fluid was equal to this index in peripheral blood. The relative increase of the level of total serum interferon in all patients with endometriosis in comparison with control group was revealed ($p < 0.05$). The level of total serum interferon in peritoneal fluid was relatively lower than its concentration in peripheral blood. When interferon status in patients with endometriosis was analyzed, we marked a relative decrease of lymphoid cells' activity in secretion of α/β and γ -interferons which was maximal in patients with the IV degree of dissemination of endometriosis (ability to produce IFN- α/β was 66,3% lower; ability to secrete IFN- γ was 84,2% lower than in control group).

These alterations of immune system parameters enabled us to work out a pathogenetically proved scheme of immunomodulation therapy. After treatment with interferon inductor "Cycloferon" we found a rising of CI of NK-cells to normal values in all patients. The therapy led to the increase in ability of lymphoid cells to produce IFN- α/β in all groups of patients, except women with the IV degree of dissemination.

Conclusion. The decrease of NK-cells cytotoxic activity and lymphoid cells ability to produce α/β and

γ -interferons indicate the alteration of immunological surveillance function in patients with endometriosis which plays a role in regulation of cell proliferation and implantation. When cytotoxic activity of NK-cells is lowered and ability of leucocytes in peripheral blood to produce α/β -interferons is preserved, it is expedient to use interferon inductors. When the potential ability of leucocytes to secrete α/β -interferons is absent, it is recommended to prescribe a course of interferon-replacement therapy (Reaferon, Viferon).



LAPOROSCOPY-ASSISTED TREATMENT OF OVARIAN TUMORS AND TUMOR-LIKE OVARIAN NODES

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THE USING OF EMERGENCY LAPAROSCOPIC SURGERY IN MANAGEMENT OF BENIGN OVARIAL NEOPLASM

Introduction. 67 patients admitted during 2004 year with the urgent surgical diagnosis (complication of benign neoplasm) were operated with using of laparoscopic surgery.

Material and methods. On the basis of morphologic and functional structure of diagnosed pathology all patients were put into two groups. The 1st group comprised the patients with verified diagnosis of the benign ovarian neoplasm ($n=28$). Most often we found serous cystadenomas – 64,3%, papillary cystadenomas – 21,4%, and mature teratomas – 14,3%. Most often benign ovarian neoplasms were identified in women older than 40 years and every 10th of them had had menopause for 4-8 years. The mean age of patient in the 1st group was $41,4 \pm 1,2$ years. The 2nd group comprised 39 patients with tumor-like formations. Morphologic patterns were: corpus luteum cysts – 53,9%, follicular

cysts – 23,1%, endometrial cysts – 15,3%, paraovarian cysts – 7,7%. The mean age of patient in the 2nd group was $26,5 \pm 1,4$ years.

Results. Depending on the extension of the performed surgical operations in the 1st group we had hemi-ovariectomy – about 40%, cystectomy – in every fifth case; ovariectomy with complete removal of another ovary – 16,2%. In the 2nd group laparoscopic surgical operations were directed to preservation of organs – in 75% of cases cystectomy only were performed. Complete excision of ovary was performed only in every 5th case.

Conclusions. So, high potential of laparoscopic surgery in preservation of reproductive organs allows us to consider this method to be the best option in management of benign ovarian neoplasms in women of reproductive age.

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OVARIAN BLOOD FLOW IN HEALTHY WOMEN AND PATIENTS WITH OVARIAN FAILURE

Objective: to investigate the relationships between ovarian blood flow, folliculogenesis and sex-steroids production during normal menstrual cycle and in women with ovarian failure

Materials and methods. 10 healthy women and 24 patients with luteal phase defect were underwent hormonal assays (estradiol, progesterone) and ultrasound examination of the uterus and ovaries with color Doppler ultrasonography of the ovarian vessels on 3 – 5, 11 – 13, 17 – 19 and 21 – 23 days of menstrual cycle. Also was done laparoscopy and hysteroscopy with ovary and endometrial biopsy.

Results. It was determined that in healthy women intraovarian blood flow of the ovary carrying dominant follicle was more active than one in patients with the ovarian failure throw the follicular phase. On the 21 – 23th days of menstrual cycle there was registered reduced blood supply of the corpus luteum and decreased progesterone levels in women with luteal phase defect.

Conclusions. Ovarian blood flow in patients with the ovarian failure was less than in healthy women in early follicular and luteal phases of menstrual cycle. Unsufficient blood supply of the corpus luteum is accompanied by reduced progesterone level in the serum.

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ENDOVideosURGERY OF BENIGN TUMORS AND TUMOR-LIKE OVARIAN MASS

Background: the questions of operative approach in huge and multi-stage ovarian mass, prevention of

recurrence and limited factors for endoscopic surgery remained actual.

Objective. The elaboration of differential tactics of surgery in patient with benign ovarian tumors and tumor-like mass.

Materials and methods. the retrospective analysis of 284 medical histories of operated patients with benign ovarian tumors and tumor-like mass was carried out in Medical Center 122 and Department of obstetrics and gynecology of Medical-Military Academy in 2001-2005 yy.

Results. the real ovarian tumors were revealed in

108 patients (38%). The tumor-like mass took place in 176 (62%) patients. Laparoscopic and open surgeries were performed: resection, cystadenectomy, ovariectomy, adnexectomy, hysterectomy and others. Postoperative period after laparoscopic operations passed more favourably.

Conclusion. endovideosurgery is the "gold standard" of benign ovarian tumors and tumor-like mass surgery both radical and reconstructive.

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THE EVALUATION OF ORGAN-SAVED SURGERY OF BENIGN TUMORS OF UTERUS AND ADNEXA

Objective: the grounding and optimization of organ-saved surgery in treatment of uterine fibroid and benign ovarian cystadenomas.

Materials and methods. The cohort study of patients with benign ovarian and uterine tumors included all operated women of Department of obstetrics and gynecology of Medical-Military Academy in period of 1991 – 1999 yy and National medical-surgical centre named after N.I. Pirogov in period of 1996 – 2004 yy. The investigations value comprised medical history, bimanual exam, colpocytology and vaginal pH measurement. The laboratory investigations were the following: CBC and urinoscopy, blood biochemistry, FSH, LH, E2, progesterone, testosterone, TSH, T3 and

T4 blood concentrations. Mammography and pelvic ultrasound were performed in all patients. The evaluation of life-quality was carried out with questionnaire SF-36. Also the modified menopausal index was defined which was worked out in Scientific Centre of Obstetrics, Gynecology and Perinatology, RAMS (Kulakov and co., 1996)

Results. Results of our investigations justified the necessity of widening of indications for surgery saved anatomic-functional interrelation in patients with uterine fibroid. It is need to be further evaluated such important criteria as "oncological risk". There was worked out the new classification of organ-saved and conservative operations of uterus and adnexa.

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HOMEOSTASIS IN PATIENTS WITH OVARIAN BENIGN TUMORS AND REPRODUCTIVE FUNCTION DISORDERS

Objective: the elicitation of immune status changes in patients with benign ovarian tumors and reproductive function disorders.

Materials and methods. 53 women with benign ovarian tumors and reproductive function disorders were examined with dynamic pelvic ultrasound, hysterosalpingography, haemostasis investigations, biochemical, endocrine and immunological tests. The latter included the examination of systemic and local immunity, detection of anti-phospholipid, anti-progesterone and antiovarial antibodies. Also laparoscopic surgeries (laparoscopy and hysteroscopy) were carried out as usually.

Results. The primary infertility was marked in 58,9%, the secondary one – in 41,1% of observations. Most patients had history of inflammatory and infectious diseases. Different menstrual function disorders were diagnosed at 50,2% of women, uterine lesions included fibroid (29,1%), endometritis (47,5%); uterine

cervix diseases – 45,2% (chronical cervicitis, leukoplakia, deformation and scarred changes after traumatic delivery). Every 2nd woman was polivalent allergic, that testified indirectly about autoimmune disorders. The ovarian tumors were revealed in 37,4% of patients, tumor-like mass – in 62,6%. Changes of coagulation system (hypercoagulation) were more frequently observed in women with epithelial, herminogenic tumors and endometriomas. The latter was combined with thyroid dysfunction very often. Dishormonal diseases of mammae and galactorrhea were revealed in the most of women. The evaluation of immune system changes in patients with infertility and benign ovarian tumors confirmed the presence of systemic disorders, which were more manifest in combined pathological processes. These patients were characterized by decreasing of T-helper (CD4+) relative content and increasing of B-lymphocytes (CD 19+), NK-cells (CD 16+), T-cells with $\gamma\delta$ -receptors and increased concentration

of IgM and IgA. Also the essential changes of interferonogenesis were found. Higher concentrations of antiphospholipid, antiprogestosterone and antiovarial antibodies were detected in patients with different forms of endometriosis.

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Objective: to reveal especialities of reproductive function disorders in patients with benign ovarian tumors.

Materials and methods. 2044 women with benign ovarian tumors and tumor-like mass and reproductive function disorders were observed. Endoscopic methods (laparoscopy and hysteroscopy) were carried out in all patients as usually with following pathomorphologic investigation of intraoperative samples.

Results. the primary infertility was marked in 53,2%, the secondary one – at 46,8% of observations. Ovarian tumors were revealed at 40,5% of patients, tumor-like mass – at 59,5%.

Most of ovarian tumors were epithelial. Among tumor-like mass endometriomas prevailed. One third of patients

Conclusion. This group of patients has significant homeostatic disorders manifested of polymorphic lesions of different systems that evidences for autoimmune factor role in infertility genesis in ovarian tumors and tumor-like mass.

BENIGN OVARIAN TUMORS AND THEIR ROLE IN REPRODUCTIVE FUNCTION DISORDERS

had combination of benign ovarian tumors, 59,1% of patients had both benign ovarian tumors and different endometrial and myometrial pathology, including multiple fibroid. External genital endometriosis and pelvic adhesions more often accompanied tumor-like mass. The most patients of benign ovarian tumors characterized by metabolic disorders (decreased blood concentration of retinol, carotinoids, albumin, electrolitis), hypothyroidism and dishormonal diseases of mammae. The examination of immune system changes in patients with benign ovarian tumors confirmed the presence of systemic disorders.

Conclusion. These data can be a confirmation of the opinion that benign ovarian tumors are not local process but systemic disease developed as a consequence of metabolic, hormonal and immune disorders.

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LAPAROSCOPY AS A DIAGNOSTIC AND MEDICAL TREATMENT METHOD IN PREGNANT PATIENTS WITH NON-MALIGNANT OVARY GROWTHS

Introductions. Non-malignant ovary growths are the serious problems of reproductive women health. Coming and prolongation of pregnancy are possible in women with ovary tumor.

Material and methods. Laparotomy is a traditional method of treatment. Since 1996 year 262 expectant mothers were medically treated in Dp. Endoscopy Moscow Reg. Research Institute.

Results. There were four groups of women: the 1st group is 123 pregnant women in the IIrd term (16-18 weeks) who were treated by laparoscopy. Laparotomy was done in 40 patients (16 – 34 weeks) – it was the 2nd group. The 3rd group was 45 women who were moved of ovary

tumors during the Cesarean section. The 4-th group was 54 patients operated by laparoscopy in 6 – 9 days after delivery.

The 16 – 18 weeks of pregnancy is the optimal period for surgical manipulation because the placenta is organized. Also the uterine size allows to carry out the surgical treatment.

Conclusions. There are some particular qualities of laparoscopy in pregnant women: the "open" method, low level of cavity pressure, "uncommon" places for trocar introduction, using the short-term relaxin. The prolonged therapy is used 2 – 3 days before the operative treatment and in postoperative period. So it reduces the postoperative risk.

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LAPAROSCOPY IN THE TREATMENT OF THE OVARIAN BENIGN TUMOURS

Introduction. The aim of the work is to study the opportunities of using endoscopy surgical methods for diagnosing and treating of different ovarian tumours.

Method of investigation. 238 women that had had laparoscopy operations in the treatment of ovarian tumours in 1995-2005 were analysed. There was the data of the endoscopy department of the children's hospital and the gynecology department. The average women's age was $32,5 \pm 0,1$ years, from 14 to 60 years old.

Results. The tumours were not diagnosed previously at 4 (6%) women and firstly were found out at the laparoscopy operations for sterility. Among the removed tumours 156 patients (65,5%) had ovarian benign tumours, 3 (1,3%) had malignant tumours and 2 (0,8%) – border-lined ones. The intraoperative council had come to a decision that two patients with border-lined tumours should be operated on an affected side only. Then those patients were tested on biochemical markers and a computer tomography was produced. Now both of them have children and are observed by an oncogynecologist. Two patients with malignant ovar-

ian tumours were operated laparoscopically. 59 patients (24,8%) had benign tumours. The operation depended on the patients' age and the presence of concomitant female genitals pathology. In all the cases the genitals were tried to be saved. In one case a conversion-laparotomy and widening of the operation capacity was made. The laparoscopy operations didn't find out the ovarian tumours at 4 (1,7%) patients. The average continuation of a patient's stay in a hospital was $2,0 \pm 0,3$ days, that depends on the presence of the concomitant pathology demanded additional methods of investigation and preparations for the operation.

Conclusions.

1. Surgical laparoscopy is a perspective trend in the treatment of the ovarian benign tumours at any age and can be a standard in a surgical gynecology.
2. A qualified surgeon-gynecologist skilled in laparotomy and laparoscopy can choose a rational tactics during the operations on border-lined and malignant tumours.



NEW TECHNOLOGIES IN TREATMENT OF ABNORMAL UTERINE POSITIONS AND STRESS INCONTINENCE

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THE NEW POSSIBILITIES OF THE ELIMINATING THE LOWERING AND FALLOUTS OF THE FRONT WALL OF VAGINA AND CYSTOCELE

Introduction. For many years the problem of the lowering and fallouts of vagina and womb remains to be actual. The wide-spread way of the surgical treatment of the lowering and fallouts of the front wall of vagina and cystocele is an anterior colporrhaphia. Its using is limited by difficulties of the operative technics in case of thinness and atrophies of fascia vesicovaginalis, and the high frequency of prolaps relapse.

Material and methods of the study. The pre-operative preparation of a patient and the study of efficiency of the treatment included the standard clinical-laboratory examination, urodynamic methods, denervation tests, prognostic methods ("stress"-tests), vaginodynamic investigation, USD, questionnaire of life quality. At post-operative period there were conducted USD, overview X-ray of small pelvis, control urodynamic and vaginodynamic methods, questionnaire of life quality.

Results. In order to increase the efficiency of reconstructions of vesicovaginal septum in case of its prolaps, we used the net from superelastic titanium-nickel threads. It possesses the high resilience, capable to repeat the form of any surface without preliminary deformation that allows to fix not only restored back walls of the urethra and urinary bubble, but also lateral walls of the urethra and urinary bubble and vastly enlarges the area of consolidated vesicovaginal septum in the its weakest division. Making front colporrhaphia we avoided cystocele, consolidated urovesical segment by

means of nearing connective and muscular elements. The net from superelastic titanium-nickel threads was fixed by separate stitch to restored back wall of the urethra and urinary bubble in zone from preparaiting part of the urethra to the cervix. It embraces the lateral walls of the urethra and urinary bubble. Fascia was sewn by the type of the collation.

The reconstruction of vesicovaginal septum in case of its prolaps (at 2 observations there was the fallout of the culs of vagina with urethra- and cystocele after hysterectomy) with using of the net from superelastic TiNi threads was made in 8 womans at the age of 40-56 years. The operation was executed as the stage of plastics of pelvic bottom muscles when their insolveny took place. The postoperative period was without complications. The independent urination was on the 1st-4th days. The control examinations in 4, 6, 12, 24, 36 months after operation revealed the absense of urogynecological and sexual complaints, there were no signs of the prolaps relapse. Implantat did not show itself negatively. According the USD and X-ray data, the tissues around the implantat had usual structure.

Conclusions. The results of the observation of the patients gave gratifying results that reconstruction of vesicovaginal septum by reinforcing of restored urinary bubble and urethra by net from the superelastic titanium-nickel threads can become the alternative technologies of vaginopexy.

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THE NEW POSSIBILITIES OF REKTOVAGINAL SEPTUM RECONSTRUCTIONS

Introduction. One of the serious problems of the surgical treatment of the lowering and falling of femal reproductive organs, is a reconstruction of rectovaginal septum at presence of rectocele. Levatoroplastics recommended in manual of the operative gynecology gives the good effect only in case of inferior rectocele, when hernial gates in rectovaginal septum are closed by levators contraction. The problem of reconstructions of rectovaginal septum in cases of the middle and superior rectocele remains open because of high frequency of relapse.

Material and methods. Pre-operative preparation of patients and the study of efficiency of the performed treatment included the standard clinical-laboratory

examination, proctologic methods, denervation tests, prognostic methods ("stress"-tests), vaginodynamic investigations, USD, questionnaire of life quality. At the postoperative period there were conducted USD, overview X-ray of small pelvis, control proctologic and vaginodynamic methods, questionnaire of lives quality.

Results. In order to increase the efficiency of the operative treatment of the lowering and fallouts of the back vaginal wall with forming of rectocele, we used the net from the superelastic titanium-nickel threads. During the reconstruction of rectovaginal septum, we produced the broad preparaiting of the front rectal wall from back vaginal wall and adjoined fascia-muscular el-

ements. Oversprained front rectal wall was taken in and brought back into natural anatomical borders. The net from the superelastic TiNi threads was put to restored front wall of vagina, prototyping on the form and fixed with separate stitches on the area from external sphincter of rectum to the back code of vagina with seizure of lateral walls. Then we sutured the slips of rectovaginal fascia, adjoined fascial-muscular elements. After excision of excesses of back vaginal wall, colpoperineorrhaphy with insulated levatoroplastics was produced.

In that way, 7 patients were operated with full and incomplete uterine prolaps with forming of rectocele. The age of the patients was 46-65 years. The postoperative period run without complications in all cases. The seams from perineum were taken away on the

6th-7th days. Healing of seams were primary. The control examinations after 4, 6, 12, 24, 36 months after operation showed that gynecologic, proctologic and sexual complaints, and the signs of the prolapse relapse were absent. The implantat did not show itself negatively. The data of USD and X-ray of small pelvis showed the usual structure of tissues around the implantat.

Conclusions. The results of the patients observation showed high efficiency of reconstructions of rectovaginal septum by reinforcing of the front rectal wall by means of the net from superelastic titanium-nickel threads. The designed methods can become the alternative to sacrovaginopexy in cases of complete forms of genital and front rectal wall prolaps.

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THE EXPERIENCE OF SYNTHETIC MATERIALS APPLICATION IN PELVIC SURGERY

Introduction. The inconsistency of pelvic muscles is one of actual gynecological problems today, resulting in significant amount of pathological processes and decreasing a quality of life. Now most effective method in treatment of pelvic prolaps is surgical treatment with use of prolens implants.

The **purpose** of our research was an estimation of efficiency of surgical treatment with use prolens implants.

Material and methods. Research group included the women with the various forms of pelvic incontinency. All patients have been carried out surgical treatment in volume of colpotosmia with Gynemesh plastics, back colpoperineolevatoroplastics. Under the indications sacrovaginopexy was carried out. We used prolens implant Gynemesh-soft (Ethicon). The efficiency of results of surgical treatment was estimated in view of subjective and objective criteria, anatomic parameters, and also

the quality of patients life was estimated at dynamic supervision within 1 year.

Results of research. We mark high efficiency of surgical treatment of pelvic prolaps with using of prolens implants. The average age of the women was 51 ± 5 years. At 50% of patients there were revealed the lowering of anterior vaginal wall of 2nd degree and cystocele, in one case the lowering of vaginal walls of 3d degree was observed. Using prolens implants the complete restoration of anatomical and functional solvency was marked. At dynamic supervision of patients within 1 year we did not observe complications. Relapses of disease also were not marked. All patients marked then satisfaction of result and improvement of life quality.

Conclusions. The surgical correction of pelvic muscles inconsistency with use of prolens implants is the most effective method of treatment and does not result in decrease of life quality.

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EFFICIENCY OF TVT AND TVT-O IN PATIENTS WITH STRESS URINE INCONTINENCE

Introduction. Stress urine incontinence (SUI) is one of the basic problems of modern gynecology. Getting high prevalence among the women of reproductive and senior age, SUI gets the medical-social importance, resulting in a number of pathological processes, and also significant decreases quality of life. The using of

suburethral prolens implants is one of the most effective methods of treatment SUI in modern gynecology.

Objective of our research was an estimation of efficiency of prolens suburethral implants TVT, TVT-O at surgical treatment of SUI.

Material and methods. We carried out the treatment

of 11 patients, using TVT-O and 8 patients using TVT. The diagnosis at all women was observed clinically and confirmed by means of urodynamic and 3D US investigations. There were estimated both subjective, and objective parameters of efficiency of SUI treatment. All patients were undergone the urodynamic investigation and US exam of urethra before and after operation.

Results of research. The average age of patients was 46 ± 5 years. The complete recovery was observed at women of both groups. We did not observe any complications both in time of urethropexy realization,

and in postoperative period. The average duration of operations was 25 minutes. Free voiding was observed for the first day after operation. US-control after operation did not reveal any attributes of SUI. All patients have noted improvement of quality of life. At dynamic supervision within 1 year the relapses of disease was not marked.

Conclusions. Analyzing the received preliminary results it is necessary to note high efficiency and safety of prolene implants TVT-O, TVT at treatment of SUI and also the simplicity of operations realization.

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THE EVALUATION OF CONTRIBUTING FACTORS AND OUTCOMES OF SURGICAL TREATMENT IN PATIENTS WITH STRESS URINE INCONTINENCE

Introduction. Stress urine incontinence (SUI), gets the important medical and social meaning in view of its extremely high prevalence among the women of senior reproductive age, occurrence and increasing of complex of the factors promoting development of moral-psychological and social – industrial disadaptation of the women

Objective. The purpose of our research was the study of anamnesis, contributing factors, outcomes of operative treatment at patients with stress urine incontinence, and also the optimization of diagnostic methods of this pathological condition.

Material and methods. Researched group included the women with clinically and urodynamically confirmed stress urine incontinence, who was observed in department of operative gynecology of D.O.Ott Research Institute of Obstetrics and Gynecology for the period since September 2004 till May, 2005. There were carried out following operations: IVS (n=6), TVT (n=6), TVT-O (n=11), such parameters as age, parity, index of body weight, menstrual function, signs of connective tissue displasia syndrom were investigated. In all women there were carried out ultrasound examination of urethra and urine infections tests. Analysing the course of postoperative period we took into account such parameters, as independent voiding, presence of intra- and postoperative complications, including a wound of urine ways, damage of nerves and vessels, erosion

of a vaginal wall and urethra. The effect of carried out operative treatment also was estimated.

Results. The mean age of patients was $50 \pm 4,1$ years (48-52). The majority of the women (82%) was bipara. More than half of patients (56%) had various signs of connective tissue displasia syndrom. 42% of the women was postmenopausal, however only one received GRT. It is interesting, that almost all women had an excess of body weight (The BMI was $28,2 \pm 9,8$). At bacteriological study the urine infections were found in 63% of the women. We did not observe such complications of operative intervention as haematoma of obturator muscle, injury of vessels and nerves, wounds of urine ways, an overactive bladder, obstructive voiding. In 5% of cases such complication of operation was observed, as the erosion of a vaginal wall, that was required repeated operative treatment. It is necessary to notice, that patient's IVS was executed, and also there was expressed urine infection. The operative treatment resulted in complete recovery at 96% of the women.

Conclusions. Our data showed that the most important contributing factors of SUI development were connective tissue displasia syndrom, the estrogen deficiency in postmenopause, and also an excess of body weight. Urine culture should be carry out before surgery at the majority of patients. Sling antistressed operations with use of prolene tapes are safe and most effective at treatment of the patients with SUI.

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TVT TECHNIQUE ON COMBINED OPERATIVE TREATMENT OF STRESS URORRHEA AND GENITAL PROLAPSE IN WOMEN

Introduction. Stress uorrhea in women is one of the most frequent problems in urology and gynecology. The aim of this research is to estimate the efficiency of TVT operation on combined treatment of stress uorrhea and genital prolapse in women.

Patients and methods. We analysed the results of surgical treatment of stress uorrhea in 32 female patients operated on by TVT technique in gynecologic department of CPC in Surgut. All the patients were operated on by TVT technique (100%) in combination with hysterectomy, anterior colporrhaphy, posterior colporrhaphy and perineolevatoroplasty in 21,9% cases, in combination with anterior colporrhaphy in 62,5% cases

and in combination with posterior colporrhaphy, perineolevatoroplasty in 15,6% cases.

Urethropexy was performed by traditional technique with intraoperative cystoscopy. All the patients mentioned the high quality of living and the absence of uorrhea symptoms in postoperative period.

Conclusions. The efficiency of TVT technique urethropexy in combination with reconstructive – plastic operations on vagina and perineum is rather high. This operation allows to improve the quality of living in patients. Following the standards of pre-operative examination and the operation technique diminishes the number of intra- and postoperative complications.

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THE COMPLETE MANAGEMENT OF PELVIC PROLAPSE BY LAPAROSCOPIC PROMONTOFIXATION & MODIFIED BURCH COLPOSUSPENSION

Introduction: Genital prolapse is a common problem in women. About 50% of parous women are estimated to have some form of pelvic organ prolapse, with 10% to 30% requesting treatment of their symptoms. The wide variety of surgical techniques used to treat this problem demonstrate how difficult it is to manage. Laparoscopic surgery offers a new approach. It allows a good view of the anterior and posterior compartments so that a global approach for the prolapse is possible by the same surgical route. Laparoscopic promontofixation with synthetic mesh, combined with a approach to the posterior compartment by the posterior extension of the mesh, provides a complete range of treatment for all types of feminine genital prolapse and associated symptoms

Patients and operative procedure. This was a retrospective study based on operations performed at our institution from January 1998 to December 2003. 138 patients with genital prolapse were operated laparoscopically. This laparoscopic technique follows the usual steps for pelvic prolapse repair. The first stage is the identification and preparation of the sacral promontory, including the fixation of the sigmoid colon by suture. The dissection from the posterior parietal prevertebral peritoneum is continued to the base of the right

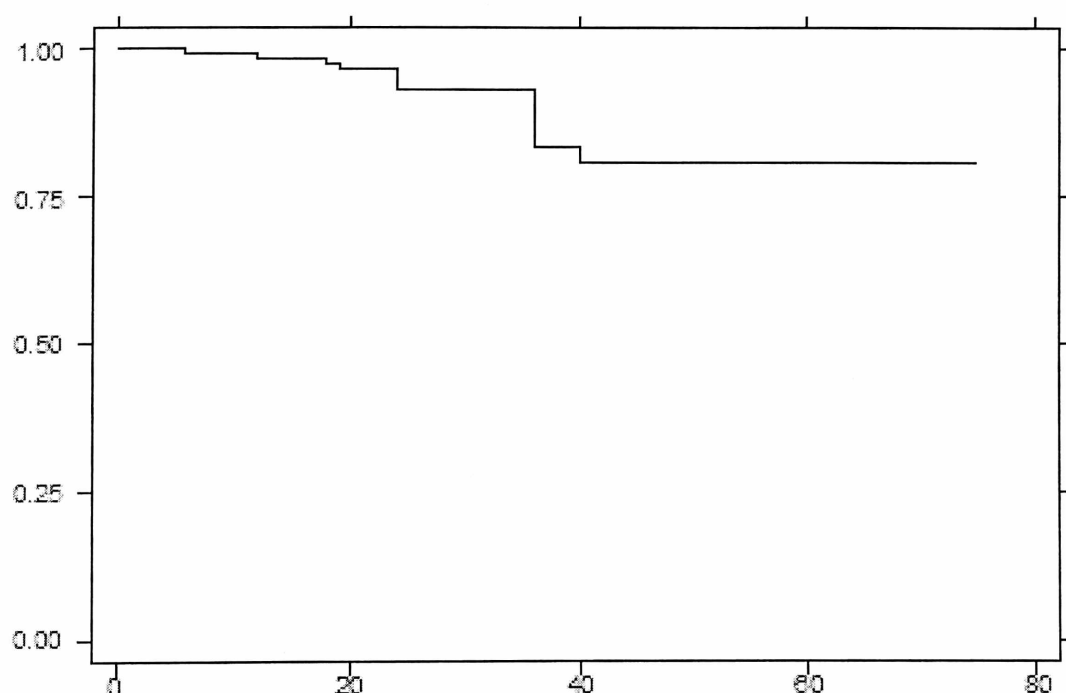
utero-sacral ligament. The rectovaginal space is then dissected for sufficient space to reinforce the rectovaginal space with mesh. The vesico-uterine space is then opened for placement of the anterior mesh. A subtotal hysterectomy is performed in the majority of cases in order to better preserve the pericervical ring. A 4 x 30 cm polyester mesh is used. Posteriorly, it is applied to the levator ani muscles bilaterally, covering the vagina posteriorly, and fixed to the base of the uterosacral ligaments. The opposite end is applied to the vesico-uterine space, and fixed at three points, causing the mesh to be doubled over itself. Reperitonisation is performed so as to allow space for the folded end to extend superiorly towards the sacral promontory. This is then fixed to the sacral promontory. The upper reperitonisation from the promontory to the cul-de-sac is then performed. A modified Burch colposuspension is then performed with the installation of TfloatingY mesh for longevity. The procedure is completed with morcellation of the uterus.

Results. The median follow up was 31 months (range from 11 to 79 months) for 131 patients followed. 12 patients (9%) presented subjective symptoms (discomfort) of prolapse recidive. 7 patients (5%) presented mesh erosion.

Comparative (anatomical) results for maximal level of prolapse

	Pre-operative	1 month	Long term
Stade 0	0	80 (63%)	28 (26%)
Stade 1	0	37 (29%)	42 (39%)
Stade 2	2 (1%)	9 (7%)	26 (24%)
Stade 3	66 (50%)	1 (1%)	11 (10%)
Stade 4	63 (49%)	0	1 (1%)

Prolapse recidive curve



Conclusion. Laparoscopic promontofixation provided good long term support of the pelvic floor in 89%. Our experience confirms the tremendous potential of laparoscopic surgery for the treatment of all aspects of pelvic floor disorders by the same

route. Stress incontinence, cystocele, hysterocele, rectocele, or enterocele can be treated effectively and safely. However, the operative time is longer than with the open route, and the surgeon must be highly experienced.

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THE ROLE OF CTD IN GENITAL PROLAPSE
GENESIS

Background: now the role of connective tissue dysplasia (CTD) in genesis of genital prolapse is known. Genital prolapse as nondifferentiated kind of CTD is a manifestation of generalized CTD on the level of reproductive system which develops in young unipara women after noncomplicated delivery without hormonal disorders and factors provided intraabdominal pressure increasing.

Materials and methods. First of all connective tissue defects are connected with altered synthesis of collagen. The immunohistochemical investigation of intraoperative samples: vessels and surrounding tissues,

pelvic fascia and ligaments was performed in patient with CTD to evaluate the morphological structure and quality of collagen content.

Results. 61,9% of 21 patients with CTD did not have macroscopic changes of examined tissues. The I and III types of collagen were expressed in all patients with CTD but both collagens had atypical structure and did not form fiber funiculus. Instead of I and III types of collagen a lot of IV type of collagen was expressed that realized in decreasing of elasticity of ligamental apparatus.

Clinical and constitutional signs of CTD were re-

vealed in 104 (24,1%) from 432 examined patients with different forms of urine incontinence which combined with anatomical disposition of pelvic organs at 81,5% of cases. These patients more often showed CTD markers.

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An urogenital fistulas are serious complication after heavy multiple traumas, wounds, and radical operations. We offer a method of conservative treatment of the given pathology with the help of cultures of allogenic cells.

The purpose of research: to estimate the first experience and opportunity of allogenic skin's cells application for a treatment of genital fistulas.

Object and methods. We carry out the treatment of 12 patients in the age from 38 till 56 years (on the average – 44 years) with genital fistulas, existed from 3 to 12 months. 9 patients had bladder-vaginal fistulas, and 3 had rectovaginal fistulas (one patient had three fistulas simultaneously). The diameter of fistulas was from 1 up to 4 mm. The causes of all fistulas were posttraumatic due to complications during operations. All patients received antibiotics and antiinflammatory therapy before the manipulation. 4 patients were unsuccessfully operated for treatment of fistulas before the transplantation of allogenic skin's cells. In our clinical research there

Conclusion. Instead of known criteria of CTD expression we offer to use the list of the most significant signs. The combination of three or more of them testifies about nondifferentiated CTD.

AN APPLICATION OF ALLOGENIC SKIN'S CELLS FOR A TREATMENT OF GENITAL FISTULAS

were used fibroblasts and keratinocytes, which were grown up on microcarriers.

Results of research. Received data show that unstraight fistulas were closed for 5-7 days after application of cells ($n = 5$). In opposite, straight fistulas had recurrent and required the second transplantation due to the healing had come on 12th-14th days. Three-multiple transplantation was executed at 4 patients. Thus the closing of a fistula had come only at one patient. The preservation of fistulas was ascertained at three patients: in two cases the fistulas were bladder-vaginal and in one – rectovaginal. It was marked, that in two inefficient cases straight linear bladder-vaginal fistulas took place and their initial diameters was about 4 mm. In a case of unsuccessful treatment of rectovaginal fistula we had met three fistulas: two invaded into vagina and one – in perineum area between back soldering and anal sphincter.

Conclusion. Thus, the first experience of using of allogenic cells of skin in treatment of genital fistulas allows to continue the development of the given alternative method and its introduction in medical practice.

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THE EFFECTIVENESS OF SLING USING IN TREATING OF STRESS INCONTINENCE IN WOMEN. THE RESULTS OF 28 OPERATIONS

The aim. Analysis of effectiveness in use of sling in incontinence treating in women.

Material and methods. The department of urology in Rostov State Medical University has the experience in using of sling in 28 (100%) patients from 40 to 63 years old. Previously 20 (71,4%) patients had complicated deliveries. 16 (57,1%) pts had perineal tears during deliveries, 3 (10,7%) pts had delivered large babies. And 1 (3,6%) patient had the late termination of pregnancy. Duration of disease in 6 (21,4%) pts was from 1 to 3 years, in 12 (42,8%) – from 1 to 3 years from 4 to 7 years, in 10 (35,7%) – more than 10 yrs. Previously 22 (78,6%) pts were treated conservatively without effect. According to classification of Mc.Guinn 6 (21,4%) pts had 2a type incontinence, 18 (64,3%) had 2b type incontinence, 3 (10,7%) pts had 3a type. 17 (60,7%) pts had cystocele. And 3 (10,7%) had rectocele.

Operation. In anterior wall of vagina there were

placed two semicircular sutures with prolene formed the circumference of 5cm diameter. Leaving 5mm from the line of suture we cut the wall of vagina, lateral sides of wound was mobilized on 2.5cm from each side. Leaving the urethra on right and left side we made canals to retropubic area. Needle-perforator one by one was led through the canal from two incisions made above to the both sides of pubis and was taken out through the vaginal wound. With the help of perforator suture was placed in the canal in retropubic area. To confirm that no perforation of bladder was made the ureterocystoscopy was done. If it was needed the plastics of cystocele was made with the help of pubocervical ligaments and posterior wall of bladder. Lateral layer of vaginal wound was ligated by vicryl N-3-0. Thus we inserted the remaining layer of the wound into itself. The sutures were together by making an additional cut at the center and through which they were inserted

and were ligated together with a special modified fixator. By this way there were no periphereal contacts of sutures. Sutures were fixed above aponeurosis.

Results. In 20 (71,4%) pts in postoperative period we corrected the pulling of sutures for obtaining of maximal results. In 22 (78,6%) pts symptoms of incontinence absolutely disappeared. In 4 (14,3%) – symptoms reduced significantly. Transvaginal ultrasonography and vaginal exam of all patients didn't revealed any rough scarring defects in postoperated area. The follow up of patients was 2 years. Complete rehabilitation was attained in 21 (75%) pts, in 5 (17,9%) pts incontinence decreased, in 2 (7,14%) pts incontinence after operation

didn't reduced. Postoperative complications: blockage of urine and need in catheterization were marked in 4 (14,3%) pts, activation of urinary infection was found in 7 (25%) pts. Pain in pubic area – in 10 (35,7%) pts. In one patient (3,6%) there was the replace of incontinence due to straining exercise. Examined her we found the break of pubovaginal sutures.

Conclusion. Turndown from mobilization of anterior wall of vagina minimized the danger of development of dystrophic and scarring changes in vesico-urethral segments. The given method helps to form new anatomic-physiologic understanding between proximal urethra and pelvic diaphragma in short-term

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COMBINED SURGICAL TREATMENT OF CYSTO- AND RECTOCELE IN DESCENT AND ABASEMENT OF FEMALE REPRODUCTIVE ORGANS

The purpose of study: improvement of surgical treatment results of cysto- and rectocele in pelvic prolapse due to combined correction of anatomic and functional disorders using lesser invasive technologies.

The material and study methods. The results of treatment of 47 women with pelvic prolapse and complaints for uroclepsia in strain, astrictions, rectal dissatisfaction, incontinence, gas incontinence were analyzed, necessity of manual text book in defecation (pelvic distention syndrome). Clinical, laboratory, ultrasound (including transvaginal), urodynamic, proctographical (including straining effort) and endoscopic investigations were carried out. According to indications and technique, surgical treatment was performed which included: loop urethroplasty (TVT and TVT-O), transvaginal sacrovaginopexy (LS MESH) and prolapse correction (front and dorsal vaginal hysterotomy, Shturmdorf operation and so on).

The results were being studied from 3 months to 3 years after operation. At that questionnaires, clinical, laboratory and ultrasound investigations were used.

The results of study. From second day after opera-

tion in patients under investigation, the complaints connected with pelvic distention syndrome disappeared. First of all, the patients noted disappearance of stress incontinence and then problems connected with defecation act.

As a result of clinical and laboratory-instrumental investigation we did not educe the cases of backset of relapse and pelvic distention syndrome.

Conclusion. The optimal way for treatment of patients with pelvic prolapse complicated by cysto- and rectocele is combined operation which makes it possible to carry out correction of genital prolapse (including remodeling of pelvic floor) and to eliminate functional disorders of annexa. At that the best functional results are reached by means of loop urethronexy (TVT and TVT-O) and sacrovaginoplasty (LS-MESH). In addition, it is necessary to note that single-step prolapse correction, incontinence and disorders of defecation act using lesser invasive technologies, significantly decrease operational trauma, improve the results of surgical treatment, have high medical, social, economic effect and improve the quality of patient's life.

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LESSER INVASIVE TECHNOLOGIES IN CORRECTION OF STRESS UROCLEPSIA IN PELVIC PROLAPSE

The purpose: improvement of results of stress uroclepsia treatment in women with pelvic prolapse using free synthetical loops from prolene (TVT, TVT-O).

The material and methods. The analysis of treatment of 132 women with pelvic prolapse and uroclepsia. All women were operated for prolapse and correction of incontinence. Control group consisted of 53 women

operated before who also suffered from prolapse and incontinence but surgical treatment was carried out only in respect of prolapse. Then these patients were operated in urological hospitals where the operation of Kraats in modification using short autodermal flap was carried out. The operations in patients of main group were performed in two stages. At first stage the cor-

rection of uroclepsia was carried out. At second stage elimination of prolapse was carried out. For correction of uroclepsia free synthetical loops TVT (in 112 cases) and TVT-O (in 20 cases) were used. The indications for usage of TVT and TVT-O were uroclepsia predominantly in strain of second type according to Mc. Guire in combination with pelvic prolapse. Intubation narcosis was used in all cases.

Results. Immediate and long-term results of operations were studied. The fates of surgical treatment were estimated as positive and negative. Positive results are the results when patients after operation can keep urine; negative results are the results when the operation did not affect and the patients had to use cappings. During 2-5 days of postoperative period positive results in main group were achieved in all 132 (100%) of patients. In these women natural urination was restored, uroclepsia symptoms disappeared. Ultrasonography was carried out in regard of all patients with the purpose of postop-

erative control; it discovered decrease of urethra size, absence of residual urine and basis of urocyt was situated higher; its pathologic instability disappeared – it is the result of prolapse correction.

The analysis of long-term results of operations comparatively in patients of main and control group showed that in patients of second group (according to data of retrospective) negative results were observed in 2 (3,7%) patients in 3 months, in 3 patients (5,7%) in 6 months, in 6 (11,3%) in 12 months and in more than year – in 3 (5,7%). Total number of backsets in patients of control group amounted to 14 (26,4%). As a result, operation with usage of free synthetical loops (TVT and TVT0) was effective in all 100% women who suffered from genital prolapse in combination with stress uroclepsia.

Results. Besides, the best results are achieved in accurate selection of patients and observance of surgical interference technique.

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SURGICAL REPAIR OF VAGINAL VAULT PROLAPSE: COMPARING OF VAGINAL AND ABDOMINAL PROCEDURES

Introductions. Uterovaginal prolapse beyond the hymenal ring is always associated with multiple defects of pelvic organ support, which requires complex reconstruction of pelvic floor. Conventional vaginal repairs of enterocele and vault prolapse often do not prevent vaginal prolapse recurrences (Karram M., 1999). High uterosacral vaginal vault suspension with fascial reconstruction is aimed to repair all the apical defects, thus restoring the entire anatomy of apical support (Barber M., 2001).

Objective. To compare the results of abdominal sacrocolpopexy and vaginal high uterosacral vaginal vault suspension with fascial reconstruction for the uterovaginal and vault prolapse repair.

Material and methods. 62 consecutive women with III and IV stages of vaginal vault prolapse underwent one of the aforementioned surgical procedures during the period from 2001 to 2004. In group 1 (n=20) patients had posthysterectomy vault prolapse. In group 2 (n=42) advanced uterovaginal prolapse was observed. In the first group we performed abdominal sacrocolpopexy using Prolene mesh (GyneMesh PS), in the second group – vaginal hysterectomy followed by high uterosacral vaginal vault suspension with fascial reconstruction (J. Miklos, 1998). Also, we performed concomitant repairs of cystocele with reinforcement by the Prolene mesh, posterior colporrhaphy, levatoroplas-

tics, TVT or TVT Obturator where needed. The vaginal profile was evaluated according to a standard POP-Q system (ICS, 1996) before and 1 year after surgery. Complete objective cure was estimated as POP-Q point C stage 0, satisfactory cure result – stage I, and objective failure \geq stage II.

Results. The complete objective cure or satisfactory results were observed in 100% patients from group 1 and in 41 (97,6%) patients from group 2 ($P=1,0$). Indeed, complete objective cure was achieved in 19 from 20 patients in group 1 and in 31 from 42 in group 2. Objective failure (stage C II) was observed in only 1 patient in group 2. Among that, 2 recurrent cystoceles (stage Ba II) were noted in sacrocolpopexy group.

Conclusions. Vaginal repair of apical support defects by site-specific fascial reconstruction and high uterosacral ligament suspension has comparable results with abdominal sacrocolpopexy and could be used successfully in patients with advanced stages of uterovaginal prolapse, especially in those who require concomitant enterocele, cystocele and rectocele repair. Abdominal sacrocolpopexy is a highly effective method for post-hysterectomy vault prolapse correction, including recurrent cases. Randomised controlled trials are needed to obtain more evidence for choosing the surgical route and procedures in patients with advanced uterovaginal, vault prolapse and enterocele.

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COMPARING OUTCOMES OF TVT VERSUS TVT OBTURATOR SLING PROCEDURES IN STRESS URINARY INCONTINENT PATIENTS: A PROSPECTIVE COHORT STUDY

Introductions. Stress urinary incontinence is a very common condition in women, adversely affecting quality of life. The TVT procedure was shown to be highly effective and is now considered as a surgery of gold standard. TVT-O, though having encouraging results, has been used in the world practice for a shorter period of time and has to be compared with TVT. Moreover, complication rates and quality of life after both procedures still need assessment.

Objectives. Compare the subjective and objective outcomes and quality of life (QoL) in patients who underwent either a tension-free vaginal tape (TVT) or TVT Obturator sling procedure for their stress urinary incontinence.

Material and methods. Prospective cohort study including patients (N=51) who underwent either a TVT (N=31) or TVT-O (N=20) between September, 2002 and May, 2005. Objective outcome variables included cough provocation test with patient in upright position and subjective outcome variable included patient reported stress incontinence three months postoperative. QoL was assessed with modified King's health questionnaire. Statistical chi-square analysis was performed to compare subjective and objective outcomes of the two procedures, and t-test – for

comparing differences in QoL scores. **RESULTS:** 9 (29%) patients in TVT cohort and 7 (35%) patients in TVT-O cohort had anti-incontinence procedure alone. Others had one or more concomitant procedures for their pelvic organ prolapse. On physical examination, including cough test, there was no any difference in the percent cured of stress urinary incontinence (100% both for TVT and TVT-O). Subjective cure rates were similar between the cohorts (96,8% vs. 95%, $p=0,674$). There were more post-operative obstructive voiding patterns (9,7% vs. 5%, $p=0,903$) and symptoms of postoperative urgency (12,9% vs. 5%, $p=0,657$) in the TVT cohort. QoL scores before and after operation did not differ a lot between cohorts, showing significant improvement of the quality of life in both groups. Mean difference in preoperative to postoperative scores are 53,25% in TVT and 61,5% in TVT-O cohorts ($p=0,220$).

Conclusions. The subjective and objective cure rates for TVT-O are similar to those for TVT. In addition, TVT-O may offer the clinical advantage of less post-operative obstructive voiding and urgency symptoms and thus improving quality of life. Future work, especially randomized controlled trials, should include more cases as well as long-term follow-up.

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THE IMPORTANCE OF THE LATENT CONNECTIVE TISSUE DYSPLASIA IN THE PATHOGENESIS OF THE CERVIX ELONGATION

Introduction. The genital prolapse (PG) is actual clinical and surgical problem. Recidive's frequency is still 33% after surgical treatment of the complicated cases. The cervix elongation (CE), which is one from the PG's forms, isn't diagnosed from early stages of the development. In the scientific literature it has written about latent connective tissue dysplasia's (CTD) importance in the PG's development.

Material and methods. We exposed the clinic, morphological, immunohistochemical manifestations with studying of the CTD's role in the CE's development. We inspected 158 patients with 1-3 degree's CE in the two age groups (before and after 45 years). The operating treatment: Manchesterskaya operation – 122 observations, the vaginal uteri's extirpation – 26, the vaginal extirpation of the cervix's stump – 10.

Results. The manifestations of the important and secondary signs of the CTD were exposed from all patients by the clinical questionnaire. The important signs

of the CTD (genital prolapse of the family's first generation, varicose veins, hemorrhoid, allergopathy, more rapid delivers) were exposed in 50% patients of the 1 group and in 100% – of the 2 group. In 1-2 CE's degree had been 1 CTD's degree and in 3-2 CTD's degree. The disturbance of the architectonic, connective, muscle tissues's, vessels's topography, collagenization of the argiophilic fibres, muscle tissue's atrophic were exposed by the histological investigation. The changenment of the accumulation and distribution of the 1, 2, 3 types's collagens were ascertained by the immunohistochemical investigation. These processes confirm CTD and lead to the cervix's inferiority.

Conclusions. The results of the experience prove the pathogenesis role of the CTD in the development of the CE and creative necessity of the exposure of the CTD's clinic signs for the correlation, stabilization of the process, and improvement of the operative treatment's results.

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THE EXPERIENCE OF GENITAL PROLAPSE TREATMENT AND URINE INCONTINENCE USING SYNTHETIC MATERIALS

Background: genital prolapse which develops especially in young unipara women after noncomplicated delivery without hormonal disorders and factors provided intraabdominal pressure increasing is a common manifestation of generalized connective tissue defect (CTD) on the level of reproductive system. The 1st and IIIrd types of collagen define mechanical structure of ligaments. The immunohistochemical investigations in cases of CTD showed sufficient expression of the 1st and IIIrd types of collagen but they did not form typical dimensional structure and were replaced of IVth type of collagen that led to altered mechanical characteristics of ligaments.

Materials and methods. The method of surgery in patients with altered uterine fixation was aimed on liq-

uidation of uterine prolapse and prevention of its further recurrence. The basic surgery – hysterectomy – was added of vaginopexy with prolen transplantant (Gyne Mesh or Gyne Mesh soft). At 13,5% of patients with CTD MESH – vaginopexy was performed as the basic surgery. Also vaginal hysterectomy, anterior vaginal plastics using synthetic materials, TVT or TVT-O and other surgeries were made. 10 patients with CTD desired to save the reproductive function underwent non-radical surgery.

Results. The using of synthetic materials in patients with CTD is rational because of insufficiency of their own tissues, development of severe genital prolapse and high risk of recurrence.

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SACROVAGINOPEXY WITH PROLENE NET APPLICATION IN GENITALIA PROLAPSUS CURE

Introduction. In last decade life duration has increased, so women are concerned with keeping femininity and sexual potential. One of the most impedimental diseases is vaginal prolapsus, which can be accompanied with falling of the womb (28%). Among the gynecological patients having abdominal and transvaginal operations in 8-26% of cases one can see vagina cupola falling, vaginal prolapsus and fall vagina inversion with enterocele. In some cases it is connected with inadequate fixation of vagina stump. Patients suffer from accompanied urinary bladder falling and rectum prolapsus. The main complaints are boring pain and heaviness at the bottom of the belly, perception of foreign body in the genitalia area, incontinence of urine and gas, quickened urination.

Objective. The goal of the given research is studying of genitalia prolapsus operational cure results, near and distant ones.

Material and methods. 170 been operated patients at age of 35-78 (average age was 47) were under dynamic observation with complex examination during 5 years. All the examined patients were divided into 5 groups according to their pathologies. The first group consisted of 24 patients with vagina prolapsus and cysto- and rectocele. The second group consisted of 39 patients with incomplete womb falling. The third one – 98 patients with fall womb falling. The fourth one – 8 patients with womb stump falling after abvaginal amputation. The fifth group – 1 patient with vagina cupola prolapsus after abdominal womb extirpation.

A lot of ways of surgical correction of this pathol-

ogy are well-known now (including laparoscopy), what is the witness of urgency of this problem at one hand, and insufficient effectiveness of surgical methods and disease high frequency recurrence at the other hand. According to the various researches data every third patient suffers from recurrence within the first three postoperational years. Searching for optimum technology of genitalia prolapsus cure we have implemented synthetic materials into pelvis fundus surgery.

For the sake of stump falling surgical correction after abvaginal womb amputation and correction of vagina cupola falling after womb extirpation, we made sacred bone colpexy.

We used prolene net of GyneMech series with length of 8cm and width of 2 cm as fixing material.

The main steps of surgical interference we have outworked, are given below:

1. Patient is on her back in metotomic position. Two clamps are applied at the apex of vagina. If hysterectomy have been done earlier, sutures on the vagina apex are seen.

2. Vaginal celiotomy (PfannenstieFs incision, seldom – median incision).

3. After intestine abduction with moisturized cloths surgeon finds right ureter and rectosigmoid part of intestine. He makes the incision of parietal peritoneum down from the promontory of the sacrum, across Douglas space and vagina apex. Vagina places into peritoneum with the help of 4 cm in length obturator or spongy tampon on the oval clamp.

4. Fixing material (prolene net in our case) is sew-

ing to the periosteum of sacrum. First, it is necessary to make sutures on the periosteum, then to follow them through the fascia, 3-4 sutures must be made. Distal end of stripe is sewed to the apex of vagina, 3 separate synthetic nonabsorbable sutures are made on the anterior wall of the vagina. The stripe of fixing material is laying on the vagina cupola and can be sewed to it, if it is necessary. Douglas space is closed by sewing of sacrum uteri ligament along medium line.

5. Parietal peritoneum is sewed above the stripe of the fixing material, small pelvis is peritonized.

Sacral vaginopexy with prolene net application

was made in 8 cases. There were no recurrences during 5 years.

Conclusions. Sacral vaginopexy with prolene net application has many advantages in comparison with the other methods of genitalia prolapsus cure where only proper tissues are used. GyneMech series prolene stripe application when sacral vaginopexy takes place, makes possible to save the depth of vagina and to recover normal axis of vagina cupola. As sacral vaginopexy is followed by pelvis hernia closure, the prolene net usage for the anatomic correction is justified. This material is well modeling, demonstrates itself as unresolving and unreactive and easy in application.

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THE EXPERIENCE OF SURGICAL TREATMENT OF STRESSFUL URINARY INCONTINENCE OF AN AVERAGE AND HEAVY DEGREE

Problem: what is the effect of "sling" operations for patients with urinary incontinence.

Methods. Before surgical treatment of urinary incontinence we spend the certain algorithm of diagnostics: use of the modified questionnaire; carrying out of functional tests, bacteriological analyses of urine, urodynamical researches, cystoscopy, urethrography.

We give the special value to carrying out of the stop-test, rectal-test in Savitskiy's updating, the Mazurek's test. In our opinion the group of patients with average and heavy degree of urinary incontinence should have the special attention. We performed 86 operations (with vaginal and laparoscopy accesses and sling-operations).

Results. Having tracked the remote results of vaginal operations and having analysed same cases of com-

bined surgical operations at these patients (with vaginal and laparoscopy accesses) there has been drawn a conclusion about their rather low efficiency.

For last years we executed 52 "sling"-operations (of Gebbel-Shtekel and Oldridzh-Krasnopol'skiy) at average and heavy degrees of urinary incontinence.

The age of patients was from 34 till 52 years, duration of their disease varied from 2 till 7 years. On the basis of the direct and remote results the restoration of normal urination process was noted in 44 cases from 52. After "sling"-operations there was noted a long period of treatment caused by long restoration of urination process.

Conclusions. It is drawn a conclusion that the given sling-operations are the most effective in patients with an average and heavy degree urinary incontinence.

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BIOMECHANICS AND BIOCOMPATIBILITY OF SYNTHETIC SUBURETHRAL SLINGS

Aim of study: The aim of our work was to find the correlation between biomechanical properties of synthetic suburethral slings and tissue reaction after implantation of them.

Material and methods. For our research we took five kinds of polypropylene synthetic slings with different structure - TVT (Gynecare), Obtape (Mentor) and three types of synthetic implants, which were created in scientific department of Lintex Ltd (specimen №1, №2 and №3). All implants could be divided into two groups: woven (TVT, specimen №1, №2 and №3) and non-woven (Obtape). Detailed structural and mechanical analysis of implants was undertaken to get information of their thickness, surface density, bulk poros-

ity, breaking load, maximum deformation, elasticity, middle square of cells, diameter of filaments, middle quantity of filaments in cell walls. Tissue reaction after implantation of selected materials was evaluated in rat model. Specimens were implanted into abdominal wall between skin and muscles. The explants were evaluated for: intensity of inflammation, the nature of inflammation, the development of granulations, intensity of fibrosis, vascularisation, minimal and maximal width of scarring zone around the implant.

Results. The evaluation of structure of implants allowed us to divide them into three groups: with relatively small cells and thin walls of cells (specimen №1), with intermediate characteristics (TVT) and with big-

ger cells and thick walls (specimens №2 and №3). TVT had the biggest material capacity (94 g/m²) and highest breaking load (80 N), but as well it had extremely unstable structure during tension (peak load deformation about 178%). Specimen №1 had the smallest material capacity (56 g/m²), it had a little bit lower breaking load (57 N), but its structure was very stable during tension (peak load deformation not more than 30%). Specimen №2, №3 and Obtape had intermediate characteristics. Pathologic research showed similar inflammatory response when using of all selected polypropylene implants. However, when using Obtape, in three cases

(9%) we observed abscesses in the site of implantation. Considerable difference was in width of scarring zone and intensiveness of fibrosis surrounding the implant. Thin, delicate and equal width of scarring zone was when using Obtape and specimen №1. Thick and solid scarring zone was in cases of specimen №2 and №3. In case of TVT there were intermediate characteristics.

Conclusion. Our research demonstrated that structural and mechanical properties of synthetic implants have obvious influence on tissue reaction after implantation of them.

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DIFFERENT TYPES OF TENSION FREE VAGINAL TAPES (TVT, TVT-O) IN TREATMENT OF STRESS INCONTINENCE

Design & Methods: 265 patients were operated using TVT (198 patients) and TVT obt (67 cases) from 2000 to 2005 year. Age of patients is 14 to 79 year (average 49,7). There was 43,9% postmenopausal women. In most cases TVT/TOT and surgical treatment of genital prolapses have done in one time. There were TVT/TOT and colporrhaphy, VH, Manchester or colpocleisis. There were been 24 complications, when TVT was done: bladder perforations – 5 (2,3%), hematoma – 2 (0,8%), disorders of bladder emptying – 17 (9%). There wasn't complication when TVT obt was performed.

Results. Long-term results (4 years) of surgical treatment of SUI by TVT/TVT-obt technology have shown 95,7% excellent and good results and 4,3% of patients have minor symptoms of incontinence (de novo incl.). The negative results were not noted after TVT-obt. All patients are "dry", without any disorders.

Conclusions. Now TVT is considered "gold" standard of surgical treatment of SUI. But transobturatorium way (TVT-obt) has some advantages: no risk of bladder perforation, no postoperative disorders of bladder emptying.

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GYNE MESH SOFT IN SURGICAL TREATMENT OF RECTOCELE

Material and methods. IVS posterior plastics of rectocele was carried out since 2002 year among 42 patients in the age of 42-69 with recurrence of rectocele. All the patients had vaginal or abdominal hysterectomy with different methods of vaginopexy, colpoperineolevatoroplastics. Recurrence of rectocele developed during the 6-24 months and was accompanied by sexual discomfort, disturbances of defecation.

Method of IVS posterior plastics of rectocele was combined with plastics of defect of the peritoneal-perineum aponeurosis. We applied prolene Mash in the form of T-shot. The basis of the prosthesis applied to the defect and its loose ends took out on the

skin of the perianal area behind the m. levator ani, with the assistance of IVS-tunneller.

Results. We have the long-term results of the technique (18 mounts). There were no sexual discomfort, disturbances of defecation or recurrence of prolaps. Analysis in 18 patients revealed the reliable differences of sexual status before and after surgical treatment. Thus 13 patients (75%) noted the satisfaction from sexual life. The frequency of sexual intercourse has increased in 10 patients (60%).

Summary. In spite of a small number of the patients and a short period of care there were noted the simple technique of this operation without any haemorrhagic or infection complications and good functional results.

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THE USING OF TRANSVAGINAL ULTRASOUND OF URETHROVESICAL SEGMENT IN DIFFERENT TYPES OF STRESS INCONTINENCE DIAGNOSTICS

At present the different types of stress incontinence diagnostics and treatment are the main topics of urogynecology. Traditional methods of clinical, urodynamic and endoscopic exams have been completed by non-invasive 2D and 3D ultrasound.

Objective. To estimate transvaginal ultrasound value in different types of stress incontinence diagnostics and treatment.

Materials and methods. 29 patients from 36 to 82 y.o. with stress incontinence were examined in Operative Gynecology Department of D.O. Ott Institute.

To derminate the type of stress incontinence and its severity the echography of urethrovesical segment was performed in all observed women using transvaginal probe Voluson-730 expert (GE), (Chechneva M.A., 2000).

The measurements of basic angles were performed in patients in supine position at rest and on Valsalva. The angle α was measured as an angle between proximal urethra and conventional longitudinal axis of the body. The angle β was retrovesical (or posterior urethrovesical) angle between proximal urethra and trigone on the level of the bladder neck. On Valsalva, the proximal urethra may be seen to rotate in a posterior-inferior direction. The changing of angle α expressed the degree of its rotation. Also the cystocele presence were noted. When the funneling of the internal urethral meatus were observed the width of proximal urethra was measured with following dynamic 3D reconstruction. After that the ratio of urethra transversal section square and urethral sphincter width were calculated.

Results. The mean values of α and β angles at rest in observed patients were $31,6^\circ$ и $112,7^\circ$, accordingly. In 8 patients the ultrasound signs of urethra hypermobility were found (stress incontinence, type II) – the angle α rotation was more than 20° . In 9 women the signs of urethral sphincter insufficiency took place (stress incontinence, type III), when the ratio of urethra transversal section square and urethral sphincter width exceeded 0,74. In three cases the combination of stress incontinence of both (II and III) types was revealed. In the rest 9 women the ultrasound signs of urethrovesical interrelation disturbances were not found.

Based on ultrasound data 17 patients were operated. In the II type of stress incontinence the antistress surgery was performed (TVT and TVT-O). In the III type of stress incontinence the urethropexy with IVS, Gyne-Mesh and Gyne-Mesh soft plastic surgery of vaginal walls were carried out. In all patient the surgery was added by the colpoperineolevatoroplastics.

Ultrasound control of urethrovesical interrelation dynamic and prolen transplantants position were performed in the early postoperative period (on 3d and 10th day). The positive dynamic were registered in all operated patients.

Conclusion. The using of transvaginal 2D and 3D echography in examination of patients with stress incontinence gives the possibility to estimate objectively the urethrovesical anatomy and optimise their treatment. At present time the long-term results analysis is fulfilling.

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TRANSPOSITION OF DISTAL URETHRA IN OPERATIVE TREATMENT OF RECURRENT URINARY TRACT INFECTION IN FEMALE PATIENTS

Aims & Objectives: recurrent urinary tract infection deals with anatomical variations of meatus position in more than 10% of patients. It can lead to retrograde permeation of bacteria during sexual intercourse. Transposition of distal urethra can significantly improve the symptoms of urinary tract infection in such group of patients.

Material & Methods. During the period from 1998 to 2005, 224 female patients suffering from recurrent urinary tract infections after sexual intercourse were undergone transposition of distal urethra (mean age 27, 3 years). The indications for the operative treatment were urethral hypermobility, uselessness of the antimi-

crobial therapy and connection with sexual activity.

Results. Positive results were subjectively in 175 patients (78, 1%). Episodes of urinary tract infection reduced in 179 patients (79, 9%). Dispareunia reduced in 190 patients (84,8%) during the period of 12 month. Improving of the quality of sexual life were detected in 204 (91,1%) patients.

Conclusions. Surgical transposition of the distal part of urethra can lead to the significant improving of symptoms of the urinary tract infection after sexual intercourse in female patients. Because of its low invasiveness this method can use in almost all patients with urinary tract infection after sexual intercourse.

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TOT AND TVT-O OPERATIONS, COMPARISON AND LONG TERM RESULTS

Introduction and Objectives. Implantation of prolen tapes for the correction of stress incontinence is the most perspective surgical method today. Our research includes the observation over patients operated according the TOT and TVT-O method in 2002-2005 for the purpose of evaluation of operative methods and long term results of surgical treatment.

Material and Methods. The research included 73 patients in the age of 47-71 years, the average age 59 years, with the stress incontinence of type 2, without complicated obstetrical-gynecological anamnesis. The 26 patients of group 1 underwent TOT procedure and 47 patients of group 2 – TVT-O. It should be noted that the patients were not specially selected for each type of the operation. All operations were carried out under the spinal anesthesia. No intraoperative complications

were observed, the average operation duration in TOT group was 16 min, in TVT-O group 12 min. Within the first 24 hours the urination was revealed by all patients, no residual urine was found. Patients stayed in the hospital during 3 days.

Results. Follow-up period was 14-32 months. It was noted that all 73 patients were happy with the results of the surgical treatment. During the follow-up of the TOT patients 3 cases of protrusion of prolen tape occurred which required its elimination. The transobturatoral access for the prolen tape is easy to do and shows good treatment results. TVT-O operation takes less time because requires less dissection of the tissues, risk of urethra trauma is minimal due to retrograde method of perforation. Possible tape protrusion after the TOT procedure probably deals with atrophic vaginitis.

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EXPERIENCE OF SURGICAL TREATMENT OF PARAURETHRAL CYSTS

Introduction and objectives. Paraurethral cysts which can be referred to nonmalignant cystic lesions of vagina are often found in urogynecologic practice. At the same time such rare pathology as diverticulum of urethra with the same symptoms can be diagnosed. The main symptoms of cysts are inflammation, pain, dyspareunia and obstructive voiding. It often requires surgical treatment. The world experience confirms that extirpation of paraurethral cysts is much more preferable than marsupialization because is more radical.

Material and methods. We investigated 67 female patients in the age of 21-55 years after paraurethral cyst extirpation, performed in 2001-2004. All operations were conducted under general anesthesia; operative time was 35-80 min. The duration of operation depended on the dimensions of the cyst to be ablated as well as on the degree of inflammation changes of circumjacent tissues. It should be noted that during the operation the urethra was

dissected in 19 patients. Within the postoperative period the urethral catheter was indwelled for 1-12 days.

Results. In the postoperative period the patients were treated by standard antimicrobial therapy. All patients left the hospital after 3-14 days since the operation with normal urination and absence of residual urine. The follow-up period was 12-24 months. Pain symptoms relieved after 2-3 weeks from the operation, by the same time the patients resumed sexual activity. There were no signs of obstructive micturition in patients with such symptom, diagnosed preoperatively. **Conclusions.** Paraurethral cysts with the symptoms of inflammation, pain, dyspareunia, obstructive voiding require surgical treatment. In surgical treatment of paraurethral cysts the extirpation is more preferable method due to the radicalism. The defect of the urethra is not a serious intraoperative complication and requires long term drainage of the bladder in the postoperative period.

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PREVALENCE OF MIXED URINARY INCONTINENCE

Hypothesis, aims of study. Mixed incontinence can be defined, as involuntary leakage of urine associated with both urgency and exertion, and effort, sneezing, and/or coughing. It can also be defined urodynamically, as combination of urodynamic stress incontinence and detrusor overactivity. The aim of this study was to describe the prevalence of mixed incontinence among

the patients of urologic clinic. In addition we analysed short-term outcome data in patients with mixed incontinence who underwent anti-incontinence surgery.

Study design, material and methods. We evaluated 363 women with symptoms of urinary incontinence between March 2004 and May 2005, mean age 52,3 (age range: 39-67 years). In this retrospective study, we

examined the records of 269 women (74%) after anti-incontinence procedures. Clinical evaluation included complete history, physical examination, three days voiding diary and urinary questionnaire (DAN-PSS). A urodynamic investigation was performed in 27% of patients and consisted of free-uroflowmetry, pressure-flow study, cystometry, EMG and UPP. The machines used include Duet MultiP (Medtronic) and Bonito (Laborie). Either an 8Fr filling catheter to measure vesical pressure (pves), or 8Fr double-lumen catheter was used. All urodynamic investigations were done according to the ICS good urodynamics practices protocol.

Results. Mixed incontinence was symptomatically revealed in 99 patients (27%). Overactive bladder was urodynamically confirmed in 42 patients (42,4%) and conservative management was provided for this group.

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In other cases various anti-incontinence procedures were performed. The total number of patients was 57. Twelve patients (21%) still had persisting symptoms after the operation. Eight patients (14%) showed poor function results.

Concluding message. The prevalence of mixed incontinence in our practice was 27%. Detrusor overactivity was confirmed urodynamically in 42 patients (42,4%) with mixed incontinence. Our experience showed that patients with symptomatic mixed incontinence deserved specific attention in order to prevent recurrence of urge symptoms after surgical procedures. Urodynamic investigation is the only objective test for diagnosing of urinary incontinence. Given the danger of exacerbating urge symptoms with surgery, these results suggest that while managing mixed incontinence, the physician should treat detrusor overactivity first.

OUR EXPERIENCE OF TREATMENT OF FEMALE PATIENTS WITH COMBINED URETERO-VESICO-VAGINAL FISTULAS

Aims & Objectives: combined uretero-vesico-vaginal fistulas is rare pathology with difficult diagnosis and treatment. We summarize the experience of treatment of such category of patients.

Material & Methods. During the period from 1998 to 2005, 171 female patients (mean age 41,9 years) suffering from combined uretero-vesico-vaginal fistulas were undergone transvesical fistuloplastics with simultaneous Boari procedure. All the fistulas were gynecological. Before the operation all the patients were

undergone cystoscopy with damaged urether catheterization. Catheter Foley was indwelled on 8 days and J-J stent – on 3 weeks.

Results. All the patients were cured. In 6% of operated patients detrusor instability were detected. All of them were treated successfully by holinolytics.

Conclusions. Combined transabdominal intervention in patients suffering from combined uretero-vesico-vaginal fistulas is the best approach in surgical treatment of such group of patients.

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SURGICAL TREATMENT OF STRESS URINARY INCONTINENCE IN WOMEN

Objective. Comparison of the surgical treatment results in patients with SUI with the use of loop operations with prolens nets.

Material and methods. At the period from 2000 to 2003, 59 patients with SUI were examined and operated on. Depending on performed antistress operation all the patients were divided into two groups with comparable estimators. The 1st group included 31 patients after the loop operation TVT. The second group (28 patients) were operated by developed method of pubovaginal loop operation with the net "Prolen". The 2nd type of SE was the most common in both groups: 57,1% in the 1st group and 51,6% in the 2nd one. Most patients had the average severity of the disease: 18 (58,1%) and 21 (72,4%), respectively. Serious disease was diagnosed

in 13 (41,9%) patients in the 1st group and in 8 (27,6%) in the 2nd group. The average age of the women in the 1st group was $47,1 \pm 1,64$ and $52,7 \pm 1,84$ years old in the 2nd group. Other surgeries were performed simultaneously with the surgical correction of SUI. 29 operations were carried out in 25 patients (80,6%) from the 1st group and 37 surgeries were carried out in 27 patients (93,1%) from the 2nd group.

Results. 23 month later positive result was recorded in 29 (93,5%) patients after the loop operation TVT and in 25 (89,2%) patients after the suggested pubovaginal loop operation with prolens net. Imperative vesical tenesmi appeared in 2 (6,5%) patients from the 1st group and in 3 (10,8%) patients in the 2nd group 3 – 6 months after surgeries. Therefore therapy results were considered to be

negative. Postoperative complications were recorded after the TVT operations in 5 (16,1%) patients and in 5 (17,2%) after suggested loop operation. Intraoperative complications in the form of urinary bladder injuries were recorded one at a time in both groups. Both cases of urinary bladder injuries and one case of bleeding in the 2nd group were recorded in 3 women with 2 and more operations on the pelvis organs. Early postoperative complications (retrosymphysis haematoma, acute urinary retention) were found in 2 patients from the 1st group and in 1 patient from the 2nd group. Detrusor instability was revealed by combined urodynamic investigation in 2 patients from the 1st group and in 3 patients from the 2nd group with imperative vesical tenesmi 6 months later.

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Objective: Optimization of diagnosis and treatment of bladder leukoplakia in women.

Material and methods: 63 women with true bladder leukoplakia revealed in cystoscopy were studied. The morphologic basis of bladder leukoplakia is squamous metaplasia of the transitional epithelium. Three consecutive stages are defined in the development of bladder leukoplasia. Stage 1 is squamous modulation, stage 2 is squamous metaplasia, stage 3 is squamous metaplasia associated with keratonization. Stages 2 and 3 combined form the notion of true leukoplakia the morphologic criteria of which include squamous metaplasia with hyperkeratosis and noninvasive growth (acanthosis). It is those morphological changes that are revealed in cystoscopy as distinctly outlined greyish white or yellowish plaques emerging above the level of the bladder mucous membrane (most commonly in Lieutaud's trigone). The age of the patients ranged from 25 to 58 years. The commonest complaints included feeling of discomfort in the suprapubic region (76,1), pains and prolonged spasms after urination (65%), polakiuria (95,2%), urgent incontinence (52,4%), terminal hematuria (7,9%). The duration of the symptoms was from 1 to 6 years. All the patients received from 3 to 6 courses of conservative therapy in the outpatient

Conclusion. 1. Loop operations with prolen net result in high rate of positive results. SUI was eliminated by TVT operations in 93,5% and by pubovaginal operations with prolen net in 89,2% of patients. 2. Both loop operations can be combined with simultaneous surgical correction of genitals prolapse. They can be carried out independently or as a stage of simultaneous surgical treatment. 3. Most common postoperative complication under both operations was detrusor instability: 6,5% after TVT operations and 10,8% after pubovaginal operations with prolen net. Increase in the complications and decrease in the efficiency of suggested pubovaginal operation with prolen net may be caused by greater quantity of performed simultaneous operations.

UP-TO-DATE APPROACH TO DIAGNOSIS AND TREATMENT OF BLADDER LEUKOPLAKIA

department, which gave no positive dynamics. When urine microflora was determined, uropathogens of intestinal bacteria group were cultured in a slight concentration in 38.0% of the patients who were given antibacterial therapy. When blood serum was tested for hormones level, the disturbance of the hormonal status – hyperestrogenicity – was detected in 63,5% of cases who were given replacement hormonal therapy. Endovesical multifocal biopsy of the changed sites in the bladder mucous membrane was performed in 37 women, which confirmed the presence of true leukoplakia in all of them. Transurethral resection (TUR) of the changed sites in the bladder mucous membrane was performed in all the patients.

Results: The patients were followed up for 18 months. The feeling of discomfort in the suprapubic region disappeared in 85,0% of the patients, significant decrease of urination frequency was noted in 77,7%, urgent incontinence disappeared in 87,3% and the disappearance of terminal hematuria was observed in 93,6%. No recurrence of leukoplakia was detected in cystoscopy.

Conclusion: Thus, TUR of the bladder wall, accompanied by replacement hormonal therapy when it is indicated, is an effective method of treatment of true bladder leukoplakia.

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SEXUAL FUNCTION ASSESSMENT IN FEMALE WITH STRESS URINARY INCONTINENCE BEFORE AND AFTER SURGICAL TREATMENT

Aims & Objectives: sexual function can significantly affect human's quality of life. It definitely decreases in female patients suffering from stress urinary incontinence. The aims of this study were to evaluate

the female sexual function before and after surgical treatment of stress urinary incontinence (SUI), comparing long follow-up results of two different procedures.

Material & Methods. The study included 130 pa-

tients (mean age 44, 9 years) who underwent TVT ($n=85$, group 1) and operation with short skin flap ($n=45$, group 2). Mean follow-up was 33,7 month. The sexual function was assessed using The Female Sexual Function Index (FSFI) - a multidimensional self-report instrument for the assessment of female sexual function. The Index consists of five domains (desire, arousal, lubrication, orgasm, satisfaction, pain); with score range from 0 to 5 and full scale score range 36,0. It should be noted that within the individual domains, a domain score of zero indicated that the subject reported having no sexual activity during the past month.

Results. According to the questionnaire, mean full scale score range before the operative treatment was 18,5 ($p<0,01$). After the follow-up period this range in group 1 was 24,9 ($p < 0,01$). The positive changes were detected almost in all domains except domain 6 (pain). There were no statistically significant changes in it. The mean full scale score range in group 2 after the follow-up period was 22,4 ($p < 0,01$). Best results in compare with preoperative condition in this group

were mostly bounded up with positive changes in 2 and 3 domains (arousal and lubrication). Individual scores in these domains were 2,6 and 2,2 preoperatively (4,3 and 4,0 postoperatively ($p < 0,01$)). This changes in group 1 were 4,7 and 4,4 accordingly ($p < 0,01$). Negative changes in group 2 in compare with group 1 observed in domains 1,4 and 5 (desire, orgasm, satisfaction). There was significant decrease of individual score in domain 6 (pain) in group 2 in compare with group 1 and preoperative condition (2.2 and 3.8 accordingly ($p < 0,01$)).

Conclusions. Our study showed that the Female Sexual Function Index is a useful and cheap tool in the investigation of quality of life in female underwent surgical treatment of stress urinary incontinence. Surgical treatment of SUI in female can improve their sexual function. The patient's sexual function after TVT is significantly better than after the operation with short skin flap. The benefits in sexual function after TVT procedure are bound up with the low invasiveness of this intervention.



THE PLACE OF ENDOSCOPY IN ONCOGYNECOLOGY

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DIAGNOSTICS STAGES IN POSTMENOPAUSAL UTERINE BLEEDING

Background: ultrasound sonography is methodologic base of endometrial pathology screening. The first stage of diagnostics is performed in all postmenopausal women in out-patients departments. If the increasing of M-echo more than 4 mm has been revealed the further examination should be continued. M-echo more than 10 mm requires the using of additional ultrasound methods such as 3D ultrasound and spectral dopplerography. Depend on received data the hysteroscopy with or without biopsy will perform on the second stage of diagnostics. In case of M-echo more than 10 mm and additional ultrasound data suspected possible endometrial cancer the aspirative biopsy of endometrium without hysteroscopy should be made.

Materials and methods. 608 postmenopausal patients with atypical uterine bleeding were observed.

14,1% of them had endometrial atrophy, 18,8% – adenomyosis, 5,6% – uterine fibroid, 4,8% – glandular hyperplasia, 21,2% – polyps, 2,9% – endometrial cancer. Thus the uterine curettage would be useless in 54,1% of cases. Separately the group of patients with endometrial cancer of the 1st and 2nd stages was studied.

Results. M-echo in T1a stage was 10,3±5,7 mm, in T1b – 18,1±7,8 mm, in T1c – 24,1±10,5 mm, in T2 – 36,1±13,8 mm. 3D reconstruction revealed no changes in 100% of T1a stage and in 28,6% of T1b stage. Haemodynamic indices showed the tendency of velocities indices increasing and periferical resistance decreasing.

Conclusion. These data confirmed the necessity of differential approach for diagnostic tactics using new technical achievements and limited using of invasive procedures.

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THE ROLE OF SONOGRAPHY AND HYSTEROSCOPY IN ENDOMETRIAL EVALUATION IN POSTMENOPAUSAL WOMEN USED ANTIESTROGENS

Background: it's known that antiestrogens and tamoxifen in the first instance display some level of estrogen activity. The study of agonistic effect realization has taken attention to the action of this medication in other target organs including endometrium.

Materials and methods. The results of clinical observations of 276 postmenopausal patients with breast cancer used or not used tamoxifen were presented. All patients were undergone ultrasound exam with M-echo measurement that was accompanied by hysteroscopy and endometrial biopsy in case of the M-echo increased more than 5 mm.

Results. Data analysis revealed real increasing of number of patients used tamoxifen with more than 5 mm M-echo. But hysteroscopy showed endometrial changes only at 27,7% of these patients. The rest women has signs of atrophy.

Conclusion. The tamoxifen influence on uterine develops as increased proliferation of stromal component and basal layer hyperplasia. These processes manifest by M-echo increasing, hysteroscopy shows atrophy. The wide using of hysteroscopy with endometrial biopsy allows to provide confirm and early diagnostics of endometrial cancer.

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THE STATUS OF MAMMARY GLANDS IN PATIENTS WITH COMBINED HYPERPLASIAS OF THE ORGANS OF REPRODUCTIVE SYSTEM AFTER OVARIECTOMY

Material and methods. 67 patients with combined hyperplasias of the organs of reproductive system (CHORS), age of 35 to 49 years (mean age 43,4 ± 4,6

years) were examined. The diagnosis of CHORS was established by histological verification of two or more hyperplastic lesions (hysteromyoma, adenomyosis,

endometrial hyperplasia and polyposis; hypertecosis, tecomatosis, tumor-like formations and benign tumors in ovaries).

Results. Various forms of mastopathy were found in 94% of clinical cases (63 patients). The diagnosis of mastopathy was established, according to the data of ultrasonographic examination, X-ray mammography, cytological and/or histological studies. Diffuse form of chronic cystic mastitis (DCCM) was found in 74,6% of cases, nodal form of chronic cystic mastitis – in 19% of cases (including 3 patients with atypical proliferation), in 4,8% of cases fibrous adenoma of mammary gland was found, and a single case of intraductal papilloma was observed. During surgical treatment of primary disorder 46 patients underwent mono- or bilateral ovariectomy. Surgical intervention on mammary gland was carried out as a second step. A total of 4 sectoral resections and one central resection was performed. 11 patients refused the suggested surgery. Patients received no pharmacotherapy of primary disorder. Five years later thorough clinical examination of the patients has revealed that only 56,7% of women who underwent surgery of uterine appendages retained mastopathy. Bilateral ovariectomy has led to 30% reduction of

DCCM, unilateral ovariectomy has led to 24% reduction. No progression of mastopathy was found in patients with nodal form of chronic cystic mastitis and fibrous adenoma of mammary gland, regardless of type of surgery. No recurrence was found in patient with intraductal papilloma after bilateral ovariectomy. All women with intact ovaries (21 patient) had mastopathy after the five-year period. Nodal form of chronic cystic mastitis was found in 9 women with previously diagnosed DCCM, and two patients were diagnosed with carcinoma *in situ*. In patients who initially refused surgical intervention on mammary gland, the size of nodes has increased more than 50% during the 5 years.

Conclusions. The data above supports, that patients with CHORS should be treated as a group at a high risk of benign hyperplasias and dysplasias of mammary glands, which, in its turn, requires thorough specialized examination prior to surgical treatment of the primary disorder. When the extent of surgical operation is determined in premenopausal women, it is necessary to consider that even severe organic changes in mammary glands can resolve after surgical postmenopause. It is clear, that correct and timely surgical intervention in CHORS patients allows prevention of breast cancer.

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VAGINAL HYSTERECTOMY OF DIFFERENT RADICALITY IN THE TREATMENT OF UTERINE DISEASES

Objective. The aim of this study was the optimization of vaginal hysterectomy (VH) using laparoscopic technology (LAVH) in order to improve the results in the treatment of benign and malignant diseases of uterine. To determine the necessity of LAVH, to learn the possibility of adnexectomy, pelvic lymphodissection, the use of needle keeper of original construction, to investigate the relationship of postoperative period between abdominal, LAVH and vaginal hysterectomy. The next aim is to study the results of surgical treatment in patients owing abdominal, vaginal and LAVH.

Patients. 273 women undergoing abdominal hysterectomy, vaginal and LAVH (group 1 – 100 VH, main indication – prolaps of uterus), group 2 – 65 LAVH, main indication is the combination of prolaps and benign tumour, group 3 – 57 women with benign tumour (myoma – 68%, cystadenoma – 30%, hyperplasia of endometrium – 37%, chronic inflammation of adnexis – 21%), group 4 – 51 women with cancer of cervix (2 – in situ, 9 – T1a, 8 – T1b, 1 – T2a) and corporis of uterine (2 – in situ, 19 – T1a, 10 – T1b). All the women of groups 2, 3 and 4 were undergone LAVH. Group 5

– 30 women with the cancer of cervix or corporis T1a-bNoMo, all of them were undergone abdominal operation. Laparoscopic operations were performed by the equipment of NPF "Endomedium". We used biinstrumental bipolar coagulation and original needle keeper (patent 2223053, 2003). We used different level of laparoscopic mobilization from the cutting of lig. teres and infundibulum pelvica (LAVH-1), plica vesicouterine and Douglas with lig.sacruterine (LAVH-2), cardinal lig. with a.a.v.v. uterine (LAVH-3), pelvic lymphodissection (LAVH-4), Celio – Shauta (LAVH-5).

Results. Indications to the LAVH have no differences in compare with the abdominal operations and have many advantages in compare with VH. In past laparotomy was a contraindication to VH. LAVH in 2, 3 and 4 groups was performed at the patients who had laparotomy in past at 25,5% (44). In the 4 group 11 cases of LAVH-4 (21,5%), 6- LAVH -5 (7,8%). Duration of operation LAVH – 4, 5 – 111 and 254 minutes, blood loss 154 and 733 ml. During lymphodissection usually 17-19 nodes were eliminated. Algorithm of LAVH indication is designed.

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THE INFLUENCE OF THE HYSTEROSCOPY OVER THE NEARER AND THE FARTHER RESULTS OF THE ENDOMETRIUM CANCER AFFECTED TREATMENT

The objective of examination: 1. The influence of the hysteroscopy over the farther results of the endometrium cancer diseased. 2. The constation of the possibilities of the hysteroscopy over the diagnosis of endometrium cancer (its prevalence, its concentration).

The examination methods. 1. Fluid hysteroscopy. 2. The used apparatus: Olympus (flexible/supple), K.Storz (stiff). 3. The cytological examination of the sample from the small pelvis and the abdominal cavity organs. 4. The hystological examination (using the standard procedures).

The examined objects. The essential control group of patients. The essential group: 38 of the endometrium cancer affected from 1995 to 2001, the hysteroscopy diagnosis wasn't used. The essential group: the age of the patients is from 42 to 85 years. The hysteroscopy was held in the fluid medium according to the standard procedure, using the hysteropump with the target biopsy of the endometrium. 37 patients are affected by the endometrium cancer in the first stage, one patient is in the third stage. The diagnosis of the endometrium cancer was disproved for 3 of 38 patients after the biopsy of the endometrium. After the surgical treatment the diagnosis of endometrium cancer was hystologically confirmed for all the patients of the first group. All the patients of the first group were operated for the extirpation of the uterus and the appendix, the chiledenictomy of the pelvis was executed, the index was- 1 patient at the 3rd stage. During the celiotomy in this group the smear on the oncocytology was taken to determinate the possibility of spread the disease after doing the hysteroscopy. Only one patient had the malignant cells. It is necessary to mention that in this case it

was a papillar adenocarcinoma of the endometrium, for which the early dissemination of the process in the abdominal cavity is characteristic. The survival in 2 groups are the same.

Results. 1. During the diagnostic hysteroscopy all the patients had the clinical diagnosis: endometrium cancer. 2. The anatomical verifications at the diagnosis stage after the constitute 91,8%. 3. The coincidence of the provisional and the definitive diagnoses in 100% of cases. 4. The influence of the hysteroscopy over the results of treatment: a) The nearer influences: The statistics of the celiotomy of the treatment after the operation doesn't differ from the control group. b) The farther influences coincide with control group.

Conclusion. 1. The hysteroscopy is a high informative method of examination over the endometrium cancer. 2. The negative anatomic diagnosis over the hysteroscopic picture of the endometrium isn't a cause to refuse the surgical treatment. 3. The use of the hysteroscopy for the endometrium cancer affected patients doesn't aggravate the results of the treatment and the survival of the patients of this group. 4. The hysteroscopy permit the diagnostic of the endometrium cancer in the early stages of the disease with the topical diagnostic of the process, it effectuate the improvement of the surgical methods of the treatment, the improvement of the index of the survival in this group of patients. 5. The hysteroscopy diagnostic is considered as the method of definitive diagnostic of the endometrium cancer before the operation. The hysteroscopy is worth while in cases of difficulties with the diagnostic of the diseases. It is reasonable to introduce the hysteroscopy diagnostic in the algorithm of examination of the endometrium cancer diseases.

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THE FIRST EXPERIENCE OF USING OF ARGON PLASMA COAGULATION IN THE TREATMENT OF BENIGN DISEASES OF UTERUS CERVIX

Urgency of research. Argon plasma coagulation (APC) as a method of monopolar high-frequency action upon a tissue, for last years is more and more widely used in endoscopy, open and laparoscopy surgery to stop bleedings and for devitalisation of superficial pathological processes. But the usage of this method in outpatient gynecology is poorly distributed.

The purpose of research. We carried out clinical research, the purpose of which was to rate the efficiency of usage APC in the treatment of women with pseudo-

erosion of uterus cervix in comparison with traditional techniques (DEC, criodestruction).

A material and methods. The essence of a technique consists in the following: the energy of a high frequency current is transferred to tissue by a no contact way, with the help of the ionized gas (argon) with formation of argon plasma beam between electrode and tissue. At the action of argon plasma beam on a tissue this tissue is locally heated and coagulated, the depth of coagulation does not exceed three millimeters

and depends on duration of action. The procedure APC was carried out on the device FOTEK EA-140 (OOO "FOTEK", Ekaterinburg). 75 patients from 20 till 32 years old were included in the research. The histological diagnosis was epidermisational endocervicosis. Patients were divided into three groups, for 25 persons in each. The rating of efficiency of various techniques was based on interrogation, survey and colposcopy, that was done in 1 and in 2,5 months after procedure. There were fixed intensity of pain sensations during and after manipulation, duration of secretions from sexual ways, and also the speed of epitalisation.

Results of research. During the procedure patients of the 1 group (APC) marked "the moderate pains" or small discomfort in the bottom of a stomach which did not require analgesia, patients of the 2 groups (DEC) marked pulling pains in the bottom of a stomach of various intensity, in the 3 group (criodestruction) not any of the patients marked pain sensations during manipulation. After procedure 28% patients from the 1st group (APC) marked smear secretions from sexual ways in 7-10 days. All patients from the 2nd group complained

within one month on purulent – bloody secretions from sexual ways. At 64% patients from the 3 group (criodestruction) within one month had plentiful watery secretions from sexual ways, sometimes with an impurity of blood.

According to the results of colposcopy in 2,5 months, the recovery in the 1st group (APC) took place at 92% of the women, in the 2nd group (DEC) it was at 88% of the patients, and only at 48% of patients from the 3 group (criodestruction).

Conclusions. 1. APC has high efficiency, good endurance and provides high rate of endocervix epitalisation, combining with advantages of methods of DEC and criodestruction, that allows to recommend this method to use wider for treatment of benign diseases of uterus cervix. 2. More sparing electro-surgical influence of APC on tissue than of DEC and, probably absence of rough scarring of uterus cervix in the remote period after treatment, can be additional argument for its usage in women who did not beget a child. 3. The complete recovery after the usage of the method of APC comes much faster, than after criodestruction.

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THE USE OF A HIGH-ENERGY SEMICONDUCTOR LASER (ATCUS-15) IN TREATMENT OF BACKGROUND AND PRECANCEROUS DISEASES OF CERVIX OF THE UTERUS

Purpose. To study the efficiency of laser destruction in treatment of background and precancerous diseases of cervix of the uterus.

Material and methods. 648 women in the age from 18 to 48 years with various pathologies of cervix of the uterus have been examined and treated.

The standard algorithm has been used, including expanded colposcopy, bacterioscopic, cytologic and morphological examination, PCR diagnostics of genital infections. STD was observed in 87% of women, HPV was observed in 38% of cases according to results of PCR.

In 68% of women suffering from STD a combination of infections was observed. Most frequently revealed was a combination of HPV, ureaplasmosis and bacterial vaginosis. All patients have received a complex stage-by-stage therapy. At the first stage antibacterial medications were used, taking into account the sensitivity of pathogen, as well as antiviral, antimycotics, local antiseptics, immunocorrectors. At the second stage, cervix of the uterus was subjected to laser destruction using the high-energy semi-conductor laser Atkus-15 (with the output power from 12 to 15 Watts) on an outpatient

basis, on the 5-9th day of the menstrual cycle. At the third stage, in the postoperative period, all patients received the immunomodulating therapy with lycopede, with simultaneous exposure of the wound surface to low-intensive helium-neon laser irradiation.

Results and discussion. After the laser destruction of cervix of the uterus, the control examinations after 1, 2, and 3 months revealed a complete epithelization of cervix of the uterus and the absence of HPV sub-clinical attributes (colposcopic and cytologic) in 87% of women. 13% of patients demonstrated a flaccid epithelization which more frequently was revealed with background HPV and with a combination of various infections, requiring repeated complex treatment. Six months after treatment, in 2,5% of patients iodine-negative zones (relapse of HPV) were revealed that required repeated laser destruction.

Conclusions. The use of the laser destruction method in patients of all age groups with a combination of background and inflammatory diseases of cervix of the uterus may help in future to prevent cancer development in cervix of the uterus, and can also be used to improve the reproductive health of women.

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ORGANSAVING TREATMENT OF MICROINVASIVE CERVICAL CANCER OF T₁A₁ STAGE

Introduction. Now the cervical cancer wins first place in the world and the second main place in the Russian Federation among all malignant new growths of female genitals. Thus in our country, on the average only at 10% of patients fixed preinvasive stage of tumoral process, that is absolutely inadequate to opportunities of modern medicine and testifies to a low level of screening. The analysis of age structure of microinvasive cervical carcinoma patients, led in the middle of 80th years of the last century, has shown, that it basically of the woman of 40-49 years, i.e. the most active creative and able-bodied age. Now the adequate and standard volume of surgical intervention at microinvasive cervical cancer T₁A₁ stages is simple gysterectomy without ovarioectomy at women of reproductive age and with ovarioectomy – at patients over 50 years. And, only at women of genital age, at persevering desire of the patient to keep fertility, surgical intervention in a similar situation can be limited of cervix conysation or cervix amputation. At the same time, for last years in the domestic and foreign literature there was published the significant number of works in which the opportunity of organsaving treatments carrying out in patients with the given pathology was substantiated. Besides biological features and a rarity metastasis of microinvasive cervical cancer, the essential argument for reduction of volume of medical influences is extremely high frequency of 5-years recovery – 96,8%

on the average for all methods. Besides many authors fairly mark a plenty of complications after application of radical programs of cervical cancer treatment.

Material and methods. For the period from 1983 till 2002 in oncogynaecological department of N.N.Petrov scientific research institute of oncology 177 patients with diagnosis of cervical cancer of IA1 stage had been surveyed and treated. Further all of them have been subjected of dynamic supervision during the period from 3 till 10 years, at average term of observation – 5 years.

Results. 120 patients (67,9%) was at age group till 49 years. More than at half patients (54,2%) the disease proceeded latently, and was located on ectocervix (69,5%). Squamosus changes were revealed in 92,1% of cases, adenogenius – in 6,2%, and, only in 1,7% of cases were revealed adenosquamosus changes. Uterine cervix conization was executed in 42 patients, hysterectomy was made at 51 patients and 84 patients had been subjected of Werthaim operation. The 5-years DFS was: 97,62% in case of uterine cervix conization, 96,08% – at hysterectomy, and 98,81% – in group of patients after Werthaim operation. Statistical comparison of parameters of the 5-years DFS depending on a kind of treatment was not revealed authentic distinctions.

Conclusions. This results allow to recommend to use organsaving operations as the basic method of treatment of microinvasive cervical cancer of T₁A₁ stages.

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MINIINVASIVE SURGICAL INTERVENTION IN DIAGNOSTIC AND TREATMENT OF THE PATIENTS WITH OVARIAN MALIGNANT TUMOUR OF STAGE IV

A laparoscopy methods have more and more importance in treatment of the patients with malignant tumors of women reproductive system.

The purpose of research – to estimate an opportunity and expediency of application diagnostic laparoscopy at the patients with stage IV of ovarian malignant tumor.

Object and methods of research. The cogort research included patients whith malignant tumors of ovary, who were treated in MMCH by name N.N. Burdenko since 01.01.1988 till 01.06.05. 80 (23%) patients had stage IV of disease. 77 patients had epithelial tumors, 3 – not epithelial. The treatment was begun from attempt of cytoreductive operation in 50 patients; diagnostic laparoscopy with biopsy of a tumor with subsequent neoaduvant chemotherapy and cytoreductive

operation were done in 22. 8 patients were executed a laparocentes with an evacuation of liquid and subsequent induction of chemotherapy or combined treatment. The criteria of an estimation of efficiency of a method were volume of cytoreductive operation, the time before the beginning of antitumour treatment. The statistical processing of results was carried out by not parametrical methods with account of average, relative sizes, exact criteria Fisher and Mann-Whitney.

Results of research. In group of the patients, where the treatment was begun from laparotomy the cytoreductive operation were performed in 33 (66%), and 17 patients (34%) was underwent an explorative laparotomy due to technical difficulties. In group of the patients, where the treatment was begun from diagnostic laparoscopy with subsequent neoaduvant chemothera-

py all 22 (100%) patient were underwent by cytoreductive operations ($p < 0,05$ between groups). The time before the beginning of antitumour therapy was $7,8 \pm 1,2$ days in group of the patients, where the treatment was begun from laparotomy. In group of the patients, where the treatment was begun from diagnostic laparoscopy the period before an antitumour therapy was $4,8 \pm 1,1$ days ($p < 0,05$ between groups). In one patient with malignant germ cell tumor, who was underwent laparocentes neoduvant chemotherapy was performed not in standart protocol because of inconsistent cytologic data. In group of the patients, where diagnostic laparoscopy with biopsy of a tumour were carried out

all patients were treated on the standard protocol. There were no complications at realization of diagnostic laparoscopy with biopsy of a tumor.

Conclusions. 1. Diagnostic laparoscopy with biopsy of a tumor is an effective method allowing to estimate the possibility of patients with stage IV of ovarian malignant tumors to be operated; also, this method allows to define the histological type of a tumor and to choose an adequate program of chemotherapy.

2. At realization of diagnostic laparoscopy in comparison with laparotomy in the patients with stage IV of malignant tumors of ovary reduces the period prior to the beginning of antitumour treatment.

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THE EXPERIENCE OF REPEATED LAPAROSCOPIC OPERATIONS IN PATIENTS WITH MALIGNANT OVARIAN TUMORS

Aim: to evaluate possibility and effectiveness of laparoscopic surgery in patients with early stage ovarian malignancies after non-radical surgical treatment of ovarian malignancies.

Material and methods. We performed 52 repeated laparoscopic operations in patients at the age of 16 to 65 years, who had had non-radical surgical treatment of I stage malignant ovarian tumors. Patients underwent non-radical operations in gynecological clinics of general profile concerning first diagnosed ovarian tumors and cysts. In most cases the only performed procedure was unilateral removal of adnexal mass and ovarian malignancy was revealed only after postoperational histological examination of the removed ovary. Repeated laparoscopic operations, the purpose of which was adequate staging of tumor process and observance of treatment radicalism, were performed within 12 – 280 days after non-radical operations. During repeated laparoscopic operations ontological principles were kept: careful inspection of abdominal cavity, intraoperational cytological examination of peritoneal fluid, washings and peritoneal biopsies, intraoperational histological

examination of removed ovaries, infracolic omentectomy. In all cases laparoscopic ultrasound examination of pelvic and paraaortic lymph nodes was performed. For evacuation of specimens out of abdominal cavity we used special containers.

Results. The average duration of surgery was 164 min. Conversions was made in 9 cases: 4 – in relation with tumor dissemination, 3 – concerning widespread adhesions, 2 – regarding intraoperational complications (bleeding from left gastroepiploic artery). Postoperational complications were observed in 3 patients and did not required surgical correction. The patients were discharged from the clinic within 4-5 days after surgery. The usage of laparoscopic surgery has made it possible to reduce rehabilitation period more than in two times in comparison with the similar indexes in case of laparotomy. Restaging was performed in 10 (19,7%) cases.

Conclusions. The usage of laparoscopic surgery in the purpose of restaging in patients who underwent non-radical operations in relation with malignant ovarian tumors let to increase the quality of patients' lives without any prejudice to oncological radicalism.

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THIRTY-YEARS EXPERIENCE OF ORGAN- SAVING TREATMENT IN ONCOLOGICAL GYNECOLOGY

The aim. To analyzed one of the aspect of the medical-social rehabilitation of the patients after organ-saving treatment of gynecological neoplasms.

Methods and material. We have analyzed comprehensive clinical data of 971 women of reproductive age with early gynecological cancer who were treated in the Department of Oncogynecology of P.A.Herten Moscow Oncological Institute in 1975 – 2004. The first

group included 688 women with precancerous lesions and early cervical cancer (severe cervical dysplasia – 90 (13,1%), cervical cancer in situ – 342 (49,7%), cervical cancer stage Ia1 – 246 (35,6%), cervical cancer stage Ia2 – 4 (0,6%). The mean age of patients was $33,6 \pm 1,2$ y.o. The second group included 158 patients with malignant ovarian tumors: non-epithelial tumors – 99 (62,7%), borderline tumors – 35 (22,1%) and ovarian

cancer – 24 (15,2%). The mean age of patients was $24,9 \pm 0,9$ y.o. The third group comprised 125 patients with either atypical endometrial hyperplasia – 57 (45,6%) or early endometrial cancer – 68 (54,4%). The mean age of patients was $21,5 \pm 1,1$ y.o. The follow-up period was 6 month – 29 years.

Results. Post-treatment fertility rates were relatively high in all groups: group 1 – 19,8% (208 pregnancies for 136 women), group 2 – 48,7% (151 pregnancies for 77 women), group 3 – 23,2% (40 pregnancies for 29 women). However, the number of interrupted pregnancies was quite high: group 1 – 110 (52,9%), group 2 – 59 (39,1%), group 3 – 7 (20%). Only a few pregnancies occurred within a short time interval after the completion of treatment and were therefore interrupted. Spontaneous abortions occurred in 51 patients: in group 1 – 31 (14,9%), 2 – 11 (7,3%) and in 3 – 9 (25,7%) cases. There were 3 (1,4%) cases of ectopic pregnancy in group 1. We observed 4 (1,9%) cases in 1 group and 1(0,6%) in 3

group cases of non-developing pregnancy. At present 12 women are pregnant: 5 – in the 1st group (2,4%), 2 (1,3%) – in the 2nd group and 5 (12,5%) – in the 3d group. The number of pregnancies resulted in childbirth was as follows: conservative treatment of cervical lesions – 56 (26,9%) pregnancies, unilateral tubo-ovariectomy – 78 (47,5%), endometrial pre-cancer and cancer – 19 (47,5%). On-term babies are alive and develop normally. An important issue is obviously the impact of pregnancy on the outcome of oncological disease. We observed 4 (2,9%) relapses in patients of the 1st group, 10 (12,9%) cases – in group 2, 2 (8%) in group 3. These results are comparable to recurrence rates of patients who underwent conservative treatment and had no pregnancies.

Conclusion. To sum it up, adequate conservative treatment of early gynecological malignancies provides long-term recovery and allows for normal female functioning, which is essential for medical and social rehabilitation of women.

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TECHNICAL ASPECTS OF LAPAROSCOPIC LYMPHODISSECTION

Aim. The studying of laparoscopic lymphodissection results in cancer of different location.

Material and methods. In Ryazan Regional Clinical Hospital 86 laparoscopic operations have been performed during the period 1999/2005. 64 (74,4%) patients have had colorectal cancer, 10 (11,6%) patients have had renal carcinoma and 2 (2,3%) patients – cervical carcinoma. 20 (23,2%) operations have been combined ones.

Lymphodissection technique has been identical. But lymphodissection extent was different, depending upon the spread of cancer. At colorectal cancer aortoiliac and aortoiliopelvic lymphodenectomy has been performed, depending upon tumor location. Radical nephrectomy has been accompanied by monolateral wide removal of retroperitoneal fat in aortal and iliac zones (affected side). Extend of lymphodissection has corresponded to standard radical hysterectomy in 2 patients (Vertheim's operation).

Action consequence was different, depending upon tumor staging. In colorectal cancer the operation has been started with major vessels ligation followed by lymphodissection in paraaortic, iliac and lateral region. Radical hysterectomy, on the contrary, has been started from fat removal from pelvic lateral walls after dissecting of uterine round ligament with the following shift in medial direction.

Results. We have not had lethal cases and conversions. Intraoperation complication have been registered

in 3 (3,4%) patients. In two (2,3%) cases major vessels have been injured and in one (1,2%) case – ureter edge injury took place. In all cases these complications have been removed, using laparoscopic access. 4 (4,7%) patients have had postoperation complications. Large intestine resection has been performed in all cases. In two (2,3%) patients anastomosis has not been a success, in one case – anastomosis stricture took place and in one case – bilateral hydronephrosis. Functional disturbances have been noticed in 10 (11,6%) cases. Large intestine resection has been performed in 9 (10,5%) patients, hysterectomy – in one patient. In 9 (10,5%) cases urination disorders took place, in one case – a patient's minor motion disturbances, related to obturator nerve injury. Average operation time did not exceed open operation time.

We have got 5-year result investigations only in 10 (11,6%) patients having colorectal cancer, and 3-year result investigations in 32 (37,2%) patients. Preliminary analysis results of relapse frequency corresponded to the results of open expanded operations, and were considerably lower as compared to the number of traditional operations; but still it is too early to come to the final conclusion about lymphodissection efficiency.

Conclusion. Our investigations have shown efficiency of lymphodissection that is accompanied by slight number of complications and have encouraging prognosis.



COMBINED AND SIMULTANEOUS OPERATIONS IN GYNECOLOGY

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Actuality. At the contemporary level of surgery, anesthesiology and resuscitation development, simultaneous surgery can be performed not only previously planned but urgently as well. There is the opinion that in urgent surgery, number of urgent operations should be limited to minimum numbers; the top-priority for a surgeon must be life-safe procedures performed for a patient and the intentional risk can hardly be considered as defensible.

Aim of the research. To optimize surgical attitudes to urgent simultaneous laparoscopic operations combined with urgent diseases of peritoneal cavity and small pelvis organs.

Materials and methods. From January 2000 till August 2005 in the departments of gynecology and surgery of Regional S.V. Ochapovskiy Clinical Hospital № 1, 79 urgent simultaneous laparoscopic operations had been performed.

Results of the research. Laparoscopic adnexectomy (cystadenonectomy) operations performed for benign tumor and tumor-like mass of ovaries were combined with laparoscopic cholecystectomy in 48 (60,7%) patients (average duration of an operation was 45,3 minutes, average stay in hospital was 4,6 days). The operations started from surgery phase, that gave the time to identify method for gynecological surgery and examine gallbladder bed after gynecological surgery phase completion. Gallbladder bed drainage through trocar access along the anterior axillary line and drainage of small

URGENT SIMULTANEOUS LAPAROSCOPIC OPERATIONS IN GYNECOLOGY AND SURGERY

pelvis were performed in case of indications for that.

Laparoscopic adnexectomy and salpingectomy operations for uterine appendages inflammatory masses were combined with appendectomy in 31 patients (39,3%) (average duration of an operation was 52,6 min, average stay in hospital was 6,9 days). Acute inflammation and infiltrated changes in vermiform appendage were the indications for operations. Appendectomy unlike cholecystectomy had been performed as a second phase in compliance with aseptic principles. Preparation was extracted in plastic container together with gynecological preparation.

No complications in postoperative period were registered, the course after surgery was typical. There were no lethal outcomes. Average period of in-hospital treatment in case of simultaneous operations was not significantly longer than in case of a separate nosologic unit.

Conclusions. It is considered reasonable to perform simultaneous laparoscopic operations in urgent surgery and gynecology, as the duration of such operations were not significantly longer, there were no increase of post-operative complications and lethal cases; traumatic effect was not bigger and excellent cosmetic results were obtained. To get maximum result of the laparoscopic simultaneous operation, highly qualified gynecologist and surgeon should be included in surgery team, or an operation should be performed by gynecology specialists team and surgeon team, each team for specific phase.

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Actuality. Increase of traumatic effect during performance of simultaneous phases and additional accesses use are presented as a major reason of surgeons' rejection to perform simultaneous correction of combined diseases with laparoscopic methods. This major reason may become disputable as laparoscopic methods are introduced in contemporary medicine.

Aim of the research. To make comparative estimation of early and late post-operative periods with patients who had isolated and simultaneous laparoscopic surgery as well as to optimize the attitudes for performances of planned simultaneous laparoscopic operations in gynecology.

PLANNED SIMULTANEOUS LAPAROSCOPIC OPERATIONS IN GYNECOLOGY AND SURGERY

Materials and methods. From January 2000 till August 2005 in the departments of gynecology and surgery of Regional S.V. Ochapovskiy Clinical Hospital № 1, 26 planned simultaneous laparoscopic operations had been performed.

Results of the research. Coagulation and/or removal of nidus of outer genital endometriosis (OGE) was performed in 5 patients (19,3%), total laparoscopic hysterectomy (TLH) was performed in 4 patients (15,4%), conservative myomectomy – in 4 patients (15,4%), cystadenonectomy – in 3 patients (11,5%), salpingolysis-ovariolysis and neosalpingoectomy were performed in 3 patients (11,5%), sub-total hysterectomy (STLH)

– in 2 patients (7,7%), tubectomy – in 2 (7,7%) patients and andexectomy – in 1 patient (3,8%). Laparoscopic gynecological operations were combined with laparoscopic hernioplastics for umbilical incarcerated hernia (3), for post-operative ventral small hernias (2) and inguinal hernia (21). The operations for the patients under research, had been started from gynecological phase; hernioplasty with the use of MESH-prosthesis, as a rule, was performed as a last phase. Average duration of an operation was $83,2 \pm 8,1$ minutes. The longest operations were in cases of relapse hernia, average duration of such operations was $82,8 \pm 6,7$ minutes, as well as in cases of herniorrhaphy combined with TLH, aver-

age duration of such operations was $65,4 \pm 8,1$ minutes. Average in-hospital stay of patients who had simultaneous herniorrhaphy was $9,5 \pm 2,6$ days. 3 patients had minimal period of in-hospital stay, it was 5 days, the longest stay in the hospital was 16 days. There were no complications in post-operative period, the cases were typical. There were no lethal outcomes.

Conclusions. Planned simultaneous laparoscopic operations allow to perform simultaneously radical and reconstructive plastic surgical treatment of gynecological and surgical diseases, they do not increase traumatic effect of operations and have excellent cosmetic results.

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THE EXPERIENCE OF SIMULTANEOUS LAPAROSCOPIC OPERATIONS IN GYNECOLOGY

Introduction. The invention of laparoscopic methods has allowed performing simultaneous operations on abdominal and pelvic organs without substantial increase in trauma caused by operational access. According to data from WHO (1985) – 20 – 30% of patients require simultaneous operations, however, only around 6% of them undergo such interventions.

Material and methods. We have an experience of treating 59 patients with gynecologic pathology and concurrent chronic gallstone disease, who underwent simultaneous operations.

The age of the patients ranged 23 to 78 years old.

Results. The indications to performing gynecologic operations were benign ovarian cysts and neoplasms

in 34 patients, uterine leiomyoma in 25 patients. In all patients we started with laparoscopic cholecystectomy, continued with a gynecologic intervention. There were no intra- and postoperative complications. The course of postoperative period and the length of stay in the clinic were not different from the average parameters from a similar group of patients without concurrent surgical pathology.

Conclusions. Therefore, our experience of simultaneous operations in gynecology using laparoscopic methods has shown its expediency in patients with concurrent chronic gallstone disease, because it does not lead to substantial increase of operational trauma and duration of treatment.

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THE OPPORTUNITIES FOR SIMULTANEOUS GYNECOLOGICAL LAPAROSCOPIC OPERATIONS

Urgency of the problem. Extensive introduction of laparoscopy in surgery and operative gynecology, perfection of technique and low traumatic effect of endoscopic operations allow to expand indications for simultaneous laparoscopic interventions involving various abdominal organs.

Material and methods. In the Municipal center of laparoscopic surgery of Elizavetskaya hospital of Saint Petersburg we have performed 138 simultaneous laparoscopic interventions. Average age of the women was $36,4 \pm 4,8$ years.

Results of the study. In 29 cases (21,01%) the laparoscopic hysterectomy (LAVH or TLH) was combined with

laparoscopic cholecystectomy in case of cholelithiasis (average duration of the operations was 115,7 minutes, the average number of days spent in the hospital – 4,9). The laparoscopic adnexectomies (cystadenomectomies) in case of benign tumors and tumor-like masses of the ovaries were combined with laparoscopic cholecystectomy in 57 (41,3%) patients (average duration of the operations was 35,4 minutes, the average number of days spent in the hospital – 3,9). In 52 patients (37,7%) the laparoscopic adnexectomies (cystadenomectomies) were combined with hernia repairs in case of incarcerated umbilical (32), femoral (4), inguinal (11) and postoperative ventral hernias (5). In the latter group we preferred to start the op-

eration as a hernia repair and then we have been fixing optical trocar in hernial openings and carried out uterine appendages operation. The hernial openings were also used for removal of a macropreparation from abdominal cavity. The final stage of the operation was hernioplasty. In the postoperative period, there were no complications. The clinical course was typical. Average terms of hospitalization did not significantly differ from the parameters of

usual laparoscopic hysterectomy or adnexectomy (cystadenomectomy).

Conclusion. Thus, simultaneous laparoscopic operations allow to carry out simultaneous radical or reconstructive-plastic surgical treatment of several gynecologic and surgical diseases, it has good cosmetic effect, essentially reduces the terms of postoperative rehabilitation.

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SIMULTANEOUS OPERATIONS IN UROGYNECOLOGY

The objective. Investigation of genital and extragenital pathology in women with stress-induced enuresis (SE) and estimation of the possibility of using simultaneous operations in surgical treatment.

Material and methods. At the period from 2000 to 2003 in N. I. Pirogov Saint-Petersburg Multifield Clinic 59 patients were operated on for SE. TVT sling operations were carried out in 31 female patients (the 1st group). The worked out method of pubovaginal sling operation with prolene net was applied in 28 female patients (the 2nd group). The age of women varied from 31 to 66 (on average 47,1 years old) in the 1st group and from 37 to 74 (on average 52,7 years old). Complex system of patient examination (USE, CUDE, MRT, endoscopic, clinical and statistical methods) was used for postoperative diagnostics and control.

Results. Various extragenital diseases were found in 18 (64,2%) patients from the 1st group and in 23 (74,2%) in the 2nd group. Combination of SE with various vaginal wall deviations, urinary bladder and rectum dispositions was recorded in 23 (82,1%) patients from the 1st group and in 27 (87%) patients in the 2nd group. Different pathology of inner genitals was revealed in 20 (71,4%) patients from the 1st group and in 15 (48,3%) patients from the 2nd group. Other surgeries aimed at elimination of inner genitals ptosis, inner genitals pathology and pelvic floor restoration were performed simultaneously with surgical correction of SE. In 24 (85,7%) patients from the 1st group the following 29 operations

were performed: anterior colporrhaphy, posterior colpoperineorrhaphy with levatoroplasty in 14 (48,3%), anterior colporrhaphy in 9 (31%), laparoscopic and laparotomic conservative myomectomy in 2 (6,9%), laser vaporization of the cervix of the uterus in 2 (6,9%), hysteroscopy and diagnostic curettage of uterine cavity in 1 (3,4%), hemorrhoidectomy in 1 (3,4%) patients. In 27 (87,1%) patients from the 2nd group the following 37 operations were performed: anterior colporrhaphy, posterior colpoperineorrhaphy with levatoroplasty in 15 (40,5%), anterior colporrhaphy in 12 (32,4%), hysteroscopy and diagnostic curettage of uterine cavity in 4 (10,8%), Manchester operation in 2 (5,4%), elimination of ventral hernia and omphalocele in 2 (5,4%), vaginal hysterectomy in 1 (2,7%), laser vaporization of the cervix of the uterus in 1 (2,7%) patients.

Conclusion. High frequency of concomitant diseases with different variants of pelvic organs prolapse predominant is recorded in patients with SE. Combination of SE, genitals prolapse, varicose veins, abdominal hernia, biliary dyskinesia, nephroptosis, hemorrhoids may result from system connective tissue deficiency. The found inner genitals pathology demands considerable expansion of surgical operation. Surgical correction of SE with the use of both sling operations with prolene net is possible in combination with any extent of surgical operation in women. Sling operations can be carried out independently or as a stage of simultaneous surgical treatment.

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LAPAROSCOPIC SIMULTANEOUS OPERATIONS IN WOMEN

Introduction. During the last years the method of simultaneous surgery, i.e. simultaneous operations using laparoscopic approach, has been elected in increasing frequency for combined surgical internal diseases. The efficacy of these interventions is controversial. The

lack of data about the influence of simultaneous operations on the quality of life in women suffering from gynecological and surgical pathology defined the relevance and objectives of this study.

Material and methods. 56 patients with different

gynecological and surgical pathology made group I and 24 patients with genitals diseases made group II. In performing the basic stage of simultaneous operation in group I, the following findings were considered as an indication for this type of treatment: hysteromyoma (42,2%), cystic adenoma (20,4%), and uterine tubes lesion (26,8%); in performing the associated stage they were: cholecystitis (28,9%), chronic and acute appendicitis (8,9%), omphalocele and bubonocele (5,6%). In group II, the one-stage operation was performed for hysteromyoma (58,8%), ovariitis and salpingitis (41,2%). Laparoscopic approach was used in all cases. The outcomes were evaluated basing on clinical and laboratory data, as well as the quality of life in a week, one, six, and twelve months after operation, according to the inquirer "Quality of Life in Women" (NTSAG and P RAMN). **Results.** Prior to simultaneous operation, the quality of life in women was characterized by low physical activity (86,3%), regardless of a type of combined pathology. 96,4% patients complain of depression, alarm, nervousness, and emotional instability. Changes in the role functions become apparent in the problems arising in the occupational activities (66,4%), the necessity to reduce working hours (58,4%). 67,8% patients demonstrated the changes in sexual activities, seen as the decrease in sexual contact rate in (53,6%)

due to sexual dissatisfaction (72,6%). The quality of life in women with combined pathology depends on the character of sexual damage, the degree and length of disease. Associated surgical diseases deteriorate the quality of life in patients to integral performance criterion of $3,88 \pm 1,07$ points. The quality of life in patients prior to one-stage gynecological operation is less impaired as to all the parameters, the integral performance criterion making up $2,84 \pm 0,87$ points. The data of investigations show that patients' quality of life after simultaneous operations depends on the type and scope of both basic and associated stage of operation. **Results.** Thus, organ-preserving operations (myomectomy, ovariectomy) improve the quality of life. Radical operations (hysterectomy, ovariectomy) can significantly upset the state of welfare, self-certification of health, and impair the quality of life. The comparative analysis of life quality factors after simultaneous and one-stage operations demonstrated that with initial lower parameters of the quality of life in patients with combined gynecological and surgical pathology, simultaneous surgery renders a more positive effect on the dynamics of the quality of life components after operation, showing a reliable improving of psychoemotional, social role functions, self-certification of health and quality of life in patients.



POSSIBILITIES AND PERSPECTIVE IN INTRAUTERINE SURGERY

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Introduction. Modern surgical techniques of hysteroscopy allow to perform organ-preserving operations in patients with submucous hysteromyoma. The submucous node up to 4 cm can be fully excised with electrosurgical fragmentation, if it belongs to the 0 or 1st type of localization according to European Hysteroscopists Association classification. In the 11nd type of localization and the node size over 4 cm preoperative preparation with gonadotropin-releasing hormone (GRH) agonists allows the 20-25% decrease of node size, however, intramural part of the node remains inaccessible to electrosurgical fragmentation and excludes the possibility of pregnancy planning. It raised the issue of the combined use of electrosurgery and laser energy for the ablation of submucous nodes of the 11nd type, exceeding 4 cm in size.

Material and Methods. 34 patients of reproductive age with submucous hysteromyoma of the 11nd type localization were subjected to surgical operation. Over 50% (18 patients) complained about infertility, and 97% (33 patients) had complaints about hyperpolymenorrhea, accompanied by anemization. The diameter of myomatous nodes ranged from 4,5 to 6 cm, mean $5,7 \pm 0,71$ cm. The diagnosis of hysteromyoma and localization type of the myomatous node was verified by diagnostic hysteroscopy. Patients received agonist of GRH (Zoladex®) for 2 months as preoperative preparation. The suggested surgical technique involved primary electrosurgical fragmentation of the

REHABILITATION OF THE REPRODUCTIVE FUNCTION IN PATIENTS AFTER INTRAUTERINE SURGERY OF HYSTEROMYOMA

submucous portion of the node with a loop of a "Karl Storz" resectoscope and multifocal laser myolysis of the remaining interstitial portion of the node with the fiber laser guide of the diode laser by "Alcom-Medica". The treatment of all intramural portion of the node with the laser guide with the intervals of 10 mm, 5-10 mm depth and 20-25 Wt output allows to vaporize the major volume of the node and induces necrobiotic processes in the remaining tissues. Surgery was carried out with endotracheal anesthesia, average duration of surgical operation was $50 \pm 12,74$ minutes, blood loss did not exceed 50 ml.

Results. The efficacy of laser treatment was evaluated by the decrease in the intramural node portion volume both during the operation and during ultrasound examination after 4-6 months follow-up. The control hysteroscopy after the follow-up period has shown, that in 15 patients the remaining portion of the node was expelled into the uterine cavity with a transition to the type 0 node, mean size $1,5 \pm 0,51$ cm; the nodes were ablated with a resectoscope loop. In other 19 patients the use of laser energy caused complete myolysis of intramural portions of the nodes. The ovulatory menstrual cycle has restored in 33 (97%) patients. 18 women had spontaneous pregnancy, and 4 women underwent successful extracorporal fertilization. No complications of pregnancies were noted in any case. There were 16 cases of vaginal deliveries and 6 Cesarean sections because of combined indications.

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THE EXPERIENCE OF COMBINED TREATMENT OF UTERINE SUBMUCOUS MYOMA

Introductions. With the advent of new technologies in medicine, with ultrasound procedures being widely spread and available to every woman the diagnosed cases of uterine pathology today are about 40%. Submucous uterine myoma is diagnosed in every 3d-4th cases of diagnosed uterine myoma. Submucous nodes are accompanied with profuse irregular menstrual bleeding, sterility, pain syndrome but can be asymptomatic as well. With no regard to presence or absence of clinical signs nowadays such patients are actively treated.

Material and methods. For the period from 2001 to 2004 we have performed 848 hysteroscopic operations, with 212 operations for submucous myoms of different types.

Results. We consider it justified to carry out drug preparation before hysteroscopic operations if there is submucous myoma of 1st-2nd type. If there were nodes of 0-type, hormonal preparation of endometrium was not carried out. Hysteroscopy makes it possible to remove 0-type nodes of any size. In our

case the largest removed node was of the size of 10 cm. With the diagnosed 1st-type myoma – 27%, 2nd-type myoma – 32% hormonal therapy makes it possible to shorten the time of operation, complications after the operation and with the adequate preparation of the endometrium and reaction of the tissue of myomatous node – to avoid repeated operation. Resectoscopic operations were carried out in case of myomatous nodes of up to 5-6 cm, with the presence of 2 interstitial-submucous nodes. As pre-operative preparation we used aGnRH in the 1st group (37 patients – 17,5%), gestrinon in the 2nd group (21 patients 10%), combined oral contraceptives (COC) in the 3d group (101 patients – 47,6%), no pre-operative drug therapy was carried in the 4th group (53 patients – 25%). The best result was achieved in case of aGnRH therapy in patients with 1-2 type submucous myoms. Agonists of GnRH were injected on the 1st day of menstrual cycle, ultrasound evaluation was performed in 27-28 days, practically in all cases we found out the decrease of the myomatous node size by 20-30% during the 1st month, then the 2nd injection was performed and the operation was carried out in 2-3 weeks after the 2nd injection. The peculiarities of the operations preceded with aGnRH therapy were minimal bleeding, short operation time, absence of com-

plications in post-operative period, performing of the operation in only stage without repeated resectoscopy, restoration of menstrual cycle within 1-2 months after the cancellation of therapy. In case of gestrinon used as pre-operative preparation there was worse individual tolerance of the drug, less involution of node tissue during pre-operative period. COC used as pre-operative preparation had no marked positive signs as compared with the absence of any pre-operative hormonal preparation. During post-operative period in case of resection of myoms of over 3 cm, especially in case of resection of more than 1 node, aGnRH was administered – 1-2 injections with the interval of 28 days, or COC during 5-6 months.

Conclusions. In the 1st group with aGnRH preparation within the 1st year of post-operative follow-up 3 cases of pregnancy were registered in patients of reproductive age. In the 2nd group no cases of pregnancy were registered. In the 3d group of patients with sterility there were 7 cases of pregnancy, in the 4th group – 2 cases. The obtained data received during 4 years of follow-up of such patients give us the reason to consider combined method of treatment of submucous uterine myoma of 1st-2nd type appropriate and expedient.

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LAPAROSCOPY AND HYSTEROSCOPY IN THE DIAGNOSIS OF FEMALE STERILITY

Introductions. There has been huge progress in diagnosis and treatment of female sterility recently. Assisted reproductive technologies have become more available for couples who have no children. In Kirov region with population of about 1,5 mln people statistically 47,000 families suffer from sterility.

Material and methods. 232 operations have been performed for different causes in patients with sterility in our department from January 2002 to December 2004. The age of the patients was 21 – 43 years. At pre-operative stage the patients underwent the generally accepted methods of evaluation including multiple ultrasound evaluation, hormonal profile, hysterosalpingography. The duration of sterility varied from 1 to 20 years.

Results. Regardless the previously performed invasive methods of evaluation of primary and secondary sterility, in our opinion, all laparoscopic diagnostic and surgical procedures in patients with sterility should be combined with hysteroscopic evaluation of uterine cavity. With hysteroscopy performed during operation we can detect endometrial pathology that was not diagnosed during the pre-operative stage and using ultrasound method. The following endometrial pathologies in patients with sterility have been detected by us: chronic endometritis – 12 cases (5%), endometrial

polyps – 32 cases (13,8%), mycropolyps under 5 mm in the region of tubal angle – 4 cases (1,7%), endometrial hyperplasia including nodal hyperplasia – 24 cases (10%), synechia of uterine cavity – 5 cases (2,17%), submucous myomatous nodes – 3 cases (1,3%), endometrial adenomatosis detected during histologic evaluation of a deliberately chosen endometrial area – 3 cases (1,3%).

Conclusions. Thus, in 35,7% of cases we detected endometrial pathology in patients with sterility during hysteroscopy and laparoscopy. Hysteroscopy helps not only detect endometrial pathology but evaluate uterine cavity, the accordance of endometrium to the phase of menstrual cycle, detect an occlusion in the area of tubal angles, carry out intra-operative catheterization of tubes. In case of combination of 2 methods of evaluation we always administer IV antibacterial drugs 1-2 hours before the operation or during the operation. Infectious complications have never occurred. We consider such way of performing endoscopic evaluation in sterile patients justified, even in the absence of ultrasound signs of endometrial pathology, it allows to shorten the time of evaluation of females with sterility, to detect non-obvious endometrial pathology, to administer the best course of therapy.

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THE COMPARATIVE ASSESSMENT OF CENTRAL HEMODYNAMICS INDEXES CHANGES IN HYSTERORESECTOSCOPY AND ENDOMETRIAL THERMOABLATION

Introduction. Traditional treatment tactics in patients with endometrial hyperplasia provides the hormonal therapy during 3 months with following histological investigation of total mucoid scrape. Surgical operation is used if there are no clinical or/and morphological effects.

Methods & Results. Hysteroscopy first of all was a diagnostic method. It is an optimal surgical method of treatment of intrauterine pathology. For a long time transcervical endoscopy manipulations were presented by mini-invasive procedures, such as intrauterine contraceptive extraction, dissection of synechia, biopsy under visual control. The problems of intraoperative

bleeding and uterine dilation constrained the following development the intrauterine manipulations.

In our endoscopy department we studied the changes of central hemodynamics in patients with hyperplasia during hysteroscopy and thermoablation. Stroke volumes, minute volume, middle dynamic pressure, total peripheral resistance, ventricle work were studied in the investigation. All groups of patients were comparable in age, somatic and genital status.

Conclusions. This research revealed more favorable condition of central hemodynamics in patients with hyperplasia during thermoablation in comparison with hysteroscopy.

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DIAGNOSTIC ABILITIES OF HYSTEROSCOPY IN PATIENTS WITH CHRONIC ENDOMETRITIS

Hysteroscopy is an important diagnostic method in the gynecology practice. The visualization of the uterus cavity can detect a lot of abnormal changes, value the prevalence of the pathology process and eliminate of the abnormal tissues.

Object. Detection of the diagnostic value of hysteroscopy in patients with chronic endometritis.

Methods: retrospective analysis of complete medical histories of women with chronic endometritis.

Results. 780 hysteroscopies were performed in 842 patients with following morphology verification of chronic endometritis. Hysteroscopy conclusion as chronic endometritis was absolutely correct only in 32,9% cases. The main signs of inflammation were irregularly mucous thickness (31%), irregularly coloring (22%), polypus formations (31,2%), hyperemia (12,8%), focal extravasations (8%) and hyperplasia (8%). Endometrio-

sis was detected in 5,5% cases, IUD in 3,5%, remains of bone fragments in 0,6%, intrauterine adhesions in 12%, cervical polyps in 1,8%, malformations in 2%. Endometrial polyps were detected in 31,2% cases however morphology confirmed only in 15,5%. Normal mucous was determined by hysteroscopy in 23,3% cases. Hysteroscopy picture demonstrated abnormal mucous changes (polyps, intrauterine adhesions, hyperplasia) without inflammatory signs in 43,8% cases.

Conclusion. The problem of hysteroscopy interpretation of endometrium inflammatory was associated with atypical signs of pathology associated with continuance, etiology and severity of process. In general, hysteroscopy is an important component of diagnostic algorithm that allows educing intrauterine pathology; nevertheless in all cases the morphological confirmation of diagnosis is necessary.



COMPLICATIONS AND METHODS OF CORRECTION IN OPERATIVE GYNECOLOGY

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Materials and methods. 37 intestinal traumas were studied respectively. 11 cases occurred after the first trocar was placed, 20 cases – in process of laparoscopy, 6 cases were complicated with ileus in postoperative period.

Results. Intestinal injuries in input of the first trocar occurred only in case of repeated abdominal surgery and led to nonpenetrated intestinal injuries (6), penetrated intestinal injuries (3), through intestinal injuries (1), intestinal-abdominal wall fistula forming (1). Intestinal

INTESTINAL TRAUMA IN LAPAROSCOPY (DIAGNOSTICS, TREATMENT AND PREVENTION)

injuries were revealed and cured intraoperatively in 11 patients. 8 patients developed peritonitis in 2-5 days and required urgent laparotomy. The restoration of all injuries was performed successfully with favourable outcomes.

Conclusion. Repeated abdominal surgery and using of monopolar electrosurgery for adhesion removing should be concerned as risk factors of intestinal traumas in laparoscopy.

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Subject matter. Subject matter was the comparative study of complications of laparoscopic-assisted vaginal hysterectomy (LAVH) and abdominal hysterectomy (AH).

Material and methods. The results of comparative study of laparoscopic-assisted vaginal hysterectomy (135 cases) and abdominal hysterectomy (110 cases) in the patients with a big size fibroid in 1999-2004 yy. are presented.

ANALYSIS OF COMPLICATIONS OF LAPAROSCOPIC-ASSISTED VAGINAL HYSTERECTOMY AND ABDOMINAL HYSTERECTOMY

Results. Complications of LAVH was in 1 case (0,74%). Complications of AH was in 4 cases (3,64%). Complications after LAVH was in 1 case (0,74%). Complications after AH was in 5 cases (4,5%).

Conclusion. Using of laparoscopic and vaginal methods for hysterectomy displayed a low part of complications compared to AH. Application of LAVH in routine practice will decrease the risk of complications of hysterectomy.

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PREVENTION OF COMPLICATIONS OF LAPAROSCOPIC OPERATIONS IN GYNECOLOGIC PATIENTS WITH ADHESIONS

Urgency of the problem. Last years the problem of laparoscopic operations in patients with abdominal adhesions attracted experts' attention.

Material and methods. At the Municipal center of laparoscopic surgery since 1994 till 2005 we have treated 623 female patients with surgical and gynecologic pathology, who required endoscopic interventions, these patients previously had 727 abdominal operations (611 – one operation, 68 – two operations, 21 – three operations and 3 of them had four operations).

Results of the study. We have performed endoscopic interventions in 450 of these operated women (72,2%). At the first stage of operation – pneumoperitoneum and

introduction of the first trocar – in 6 cases (0,96%) the injury of abdominal bodies took place (twice – small intestine, iliac vein and three times – the greater omentum). In four cases, the trocar punctures were made in several centimeters from operational cicatrices. Two complications (the injury of mesentery and iliac vein) took place with optical trocar (Visiport). It is necessary to say, that it was not possible to make preliminary pneumoperitoneum using the puncture needle in these patients because of adhesions. After that, we have started to introduce the first trocar using open laparoscopy method in patients with high probability of adhesions, and we haven't had any injuries of abdominal organs.

Recently we have been using ultrasonic examination of abdominal cavity for diagnostics of prevalence of adhesive process, which gave us the best results in comparison with others non-invasive methods (reliability about 64%). In the making, in 147 patients, the previous laparotomy was a relative contraindication for laparoscopic operations. The intraoperative analysis of prevalence

of adhesions has allowed to establish, that in 81 patients (55,1%) of this group the safe laparoscopic intervention was possible with use of rational endosurgery approach.

Conclusions. Thus, the majority of patients with adhesions in abdominal cavity can have endoscopic operations. The most safe endosurgery approach in this case in our opinion will be the open laparoscopy.

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TAPE RELATED COMPLICATIONS OF MID-URETHRAL SLING PROCEDURES FOR FEMALE URINARY STRESS INCONTINENCE

Introduction. The mid-urethral sling procedures (MUS), like tension free vaginal tape (TVT) or transobturator tape (TOT) procedures are recent modalities for managing female urinary stress incontinence. They have been rapidly gaining popularity worldwide but little has been published to date on the nature and symptoms of associated complication

Material and methods. From April 1998 till now, about 300 patients underwent MUS procedure in our department. During the last five years twenty patients underwent, and three refused corrective surgery for complications resulting from the MUS, another two patient are only being observed. Their records were reviewed to retrieve data on presenting symptoms and signs, diagnostic tests, surgical procedures, and outcomes

Results. One patient had tape erosion into the bladder, six had vaginal tape erosion (one with concomitant urethral obstruction), and another eighteen had

an obstructed urethra. The more common presenting symptoms were persistent urethral pain, recurrent urinary tract infection, urgency, urge incontinence, and vaginal discharge. Twenty patients required partial tape removal or tape incision which was carried out transvaginally in nineteen of them. One patient underwent cystotomy and excision of the intravesical part of an eroded tape. Two patients with asymptomatic vaginal erosion are only being observed. No formal urethrolisis was performed in any case. The mean follow-up after corrective surgery in 20 patients was 14.8 months (range 6-48) during which fifteen patients remain continent and symptom free.

Conclusions. Urologists and gynecologists should be aware of the nature and symptoms of tape-related complications associated with a MUS procedure for prompt diagnosis and appropriate postoperative treatment management.

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MANAGEMENT OF UROLOGIC TRAUMA AFTER GYNECOLOGIC AND OBSTETRIC PROCEDURES

Introduction. The anatomical proximity of the lower urinary tract to the female reproductive organs renders it vulnerable to injury during obstetric and gynecologic procedures. Overall, the reported incidence of iatrogenic injury is between 0,5% and 2% for gynecologic and pelvic operations; however, the true incidence is difficult to ascertain from the literature because most studies are retrospective and only review patients who have become symptomatic, requiring urological intervention. Herein we retrospectively report our experience of diagnosis and treatment of iatrogenic injuries of urethra, bladder and ureters in female.

Materials and methods. Between 1987 and 2005, 125 women with a mean age of 48 years (ranged 22 – 85) were included into this study, bladder injuries – 58 patients, ureteral – 52 (4 – bilateral), and urethral – 15. Hysterectomy was the most common antecedent

surgical procedure (64%).

Results. Bladder: 15 of 58 injuries were diagnosed intraoperatively and sutured, 14 – managed conservatively by urethral catheter placement only, 12 – underwent re-laparotomy and bladder tear suturing, 17 – vesico-vaginal fistula repair.

Urethra: Seven of 15 injured urethra were sutured during primary surgery (one complication – urethra-vaginal fistula formation), 1 – treated by indwelling catheter placement, 2 patients underwent urethral dilation for stricture, and 5 – urethro-vaginal fistula repair.

Ureter: Seven of 56 ureteral injuries were diagnosed and repaired during the primary operation. 45 patients required additional surgery: uretero-ureteroanastomosis – 16, release of ureter – 7, neoureterocystoanastomosis – 16, psoas hitch ureteral reimplantation – 10. The definitive corrective surgery followed percutane-

ous nephrostomy placement in 17 cases, transurethral orifice incision – 1, ureteral catheter or stent insertion – 4. 3 patients underwent nephrectomy for longstanding non-functioning kidney. Reconstructive ureteral surgery was successful in all cases.

Conclusions. 1. The key to successful management

remains a high index of suspicion with early imaging and early re-intervention.

2. Open surgical technique give far better results than minimally invasive therapies.

3. Successful repair may be achieved in the vast majority of patients.



THE MODERN TECHNOLOGIES IN DIAGNOSTICS OF GYNECOLOGICAL DISEASES

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In last 7 years 8174 surgeries were performed, 1188 from them were simultantied. Endoscopic operations became the gold standard of reconstructive surgery of infertility. 102 hysterectomies were performed from 2000 year and 210 fibroid enucleations. Ovarian tumors were the indications for surgery in

THE FIRST EXPERIENCE OF GYNECOLOGICAL LAPAROENDOSCOPY

1134 cases, endometriosis – in 104 cases, extrauterine pregnancy – in 385 cases. 35 patients underwent organ-saved surgery. Laparoscopic operations allowed to decrease intraoperative trauma, blood loss, hospital stay. We had no lethal outcomes in this group of surgery.

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CHARACTERISTICS OF THE PELVIOMETRIC INDEXES AND JUSTIFICATION OF EFFICIENCY OF THEIR USE TO EVALUATE THE SHAPE OF SMALL PELVIS IN ADULT WOMEN

Material and methods. The study was conducted using 51 specimen of normal female pelvis with ligaments from the Fundamental Museum of Department of Normal Anatomy of Military Medical Academy. To characterize the shape of pelvis the following standard pelviometric indexes had been used: pelvic ring index (PRI), pelvic height-width index (PHWI), pelvic width index (PWI), pelvic outlet expansion index (PEI).

Results. It was established, that none of the above indexes could adequately characterize the shape of pelvic outlet. Therefore, a new parameter was proposed for its evaluation: a sagittal-transverse pelvic index (STPI), a percentage ratio of distantia symphyzo-sacralis to transverse diameter of the outlet of pelvis. In our opinion, from the analyzed indexes, PRI, PHWI and STPI should be used for complex evaluation of the shape of small pelvis. These indexes characterize

it most completely, and it's this part of pelvis, which is most important during operative procedures on pelvic organs or execution of diagnostic manipulations. Morphometric analysis of the group of female pelvises from the collection of the Fundamental Museum of Department of Normal Anatomy of Military Medical Academy has shown that according to the indexes used, the most widely spread shapes of pelvises are: mesopelvic (61%) according to PRI, medium (76%) according to PHWI, harmonic (65%) according to PWI, uniform (76,4%) according to PEI and round (72,5%) according to STPI. Marginal pelvic shapes in terms of PRI, PHWI, PWI, PEI and STPI occur in 9,8% – 20% of population.

Conclusions. It can be assumed, that the modern imaging methods, such as MRI and CT, would allow us to measure the dimensions of pelvis, necessary for calculation of these indexes in a living person.

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FULL-THICKNESS SKIN GRAFT COLPOPOIESIS IN THE PATIENT WITH THE MAYER-ROKITANSKY-KUSTER SYNDROME: A CASE REPORT

Introductions. The congenital absence of the vagina has a low incidence but it is a very invalidating condition. The Mayer-Rokitansky-Kuster syndrome represents 90% of all cases of vaginal aplasia. These patients may have an improved quality of sexual life once a neovagina is constructed. Four techniques of colpopoiesis are most commonly used: Abbe-Whar-

ton-McIndoe procedure with use of split-thickness skin graft, a full-thickness skin graft neovagina, a Vecchiotti procedure and a colon colpopoiesis. There are some other procedures including advancement of peritoneum as per Davidov or in combination with transposition skin flaps from labia minora as per Friedberg and Knapsten. All of them have some advances and faults,

and the choice of procedure depends on many factors, including patients' wishes.

Objectives. To present a case of successful colpopoiesis using full-thickness skin graft.

Case report. An 18-year-old woman with the Mayer-Rokitansky-Kuster syndrome attended to the hospital wishing to get able to have a sexual life. She was informed about most of the current methods used for neovagina reconstruction, including conservative treatment options, and was asked to choose the most appropriate for her. She preferred the full-thickness skin graft technique. The U-shaped incision of vulvar skin was made in the area of the future introitus. After performing a recto-vesical dissection, three skin grafts were obtained from abdomen and left inner thigh and properly prepared. Then skin grafts were folded around the vaginal mold and the graft edges were sewn together with

4-0 absorbable sutures. The mold was then inserted into the prepared recto-vesical space. The edges of the skin graft were attached to the vulvar skin. The U-shaped flap of excised vulvar skin was used to create a posterior furshette. This trick is aimed to diminish dyspareunia in the future life. The mold was left in the neovagina for 10 days, then it was got out and new vagina was revised, showing good engraftment. The patient was instructed to keep the vaginal dilator in her neovagina constantly for 2 months. Now, 3 months after the operation, the patient feels good. Sexual life will be permitted after a half-year postoperatively. The size and elastic qualities of neovagina are sufficient.

Conclusions. The results of colpopoiesis with full-thickness skin graft are good in this case, showing that there is a good alternative to a more invasive colon colpopoiesis.

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THE ROLE OF CYTOMEGALOVIRAL INFECTION IN YOUNG FEMALES WITH OVARIAN RESISTANCE

Introduction. The study is aimed at the evaluation of the effects of cytomegaloviruses (CMV) on the development of ovarian resistance (OR) and at the development of a package of diagnostic and therapeutic measures in patients with such pathology.

Material and Methods. Thirty two female patients of 17 to 23 years old with hypomenstrual syndrome and amenorrhea were examined. The group of patients was homogeneous with respect to the level and quality of life. Thorough examination of the medical histories and data of USI (poorly developed follicular structures, follicles of 1, 2 or 3 mm in diameter) and hormonal investigations (high levels of FSH and LH hormones and low levels of E2 were found in all patients, E2 to FSH ratio less than 20) made it possible to suggest a lack of activation of ovarian estrogen receptors. In order to make a final diagnosis, laparoscopy was made in, and gonadal biopsy was taken from, 24 patients. The laparoscopy revealed that the shape of the ovaries was almost rounded and the follicular apparatus was poorly developed. Primordial and preantral follicles were detected in the samples of ovarian biopsy during a pathohistological investigation. Polymerase Chain Reaction (PCR) was employed during laparoscopy to test the peritoneal fluid and samples of ovarian biopsy and urogenital discharge for DNA of CMV, and enzyme-linked immune assay was employed to detect Ig M and IgG antibodies against CMV. DNA of CMV was found in the samples of ovarian biopsy of 7 patients (21,8%), in the peritoneal fluid of 5 patients (15,6%), and IgM against CMV was found in 4 patients (12,5%) and diagnostic IgG titre – in 28 patients (87,5%). IgG titre fluctuated in the range from 1,47 to 10,9 with the reference values of IgG titre of 0,9. We have noticed that patients showing

detected levels of DNA of CMV in the studied material and diagnostic titres of IgG against CMV or IgM had also more marked clinical signs of hypomenstrual syndrome and changes in the hormone levels. All patients in the group received the following therapy: human immunoglobulin against cytomegaloviruses – 1,5 ml, i/m, 5 times every fifth day, Laferon – 2 million IU, i/m, 10 times, Thiotriazoline, 2,5% – 2 ml i/m, vitamin E – 100 mg, 10 times, tincture of *Echinacea Purpurea* – 2,75 ml triple daily, Solco Trichovac – 1 dose, Viferon – 3 x 2 suppositories (every 12 hours) per rectum, 10 times, UV irradiation of the blood 5 times. Three sessions of therapy were administered with an interval of 15 days. In the studied group of patients, the use of active estrogen – estradiol – was pathogenetically reasonable for the purposes of estrone competition in order to achieve an adequate reaction of the target organs. Transdermal Divigel preparation was preferred. The dose of 1 mg daily was used. The duration of administration was 21 days, and the minimal therapeutic doses of gestagens were added to the scheme of treatment on the 15th day of administration of Divigel; gestagen therapy continued for 10 to 12 days.

Results. Upon one month of treatment, a monitoring examination was performed in the group of the studied patients. During such examination, DNA of CMV was found in 2 patients (6,2%), IgM antibodies against CMV were not detected, IgG antibodies against CMV were found in 11 patients (34,3%). IgG titre was ranging 1,34 to 4,47. Hormonal investigation showed a reduction of the levels of FSH and LH in 23 patients, and the level of E2 came close to the lower limit of the normal values, and the E2 to FSH ratio increased to 22-34 (in phase I of the cycle). A repeated monitoring

examination was performed in three months following the completion of therapy: DNA of CMV was found in none of the patients of the studied group, IgM antibodies against CMV were not detected, IgG antibodies against CMV were found in 2 patients (6,2%). IgG titre was ranging 0,4 to 0,9 in 30 patients (93,7%).

Hormonal investigation showed normal levels of FSH and LH and E2 in 25 patients, and the E2 to FSH ratio increased to 27-40 (in phase 1 of the cycle). USI showed that the structure of the ovaries was within the age-related normal margins.

Conclusions. The obtained results make it possible to conclude:

- CMV has negative impact on the reproductive system;
- CMV is a factor causing ovarian resistance;

- Patients with hypomenstrual syndrome shall be tested for CMV infection by using PCR and enzyme-linked immune assay methods in order to confirm the diagnosis of ovarian resistance;
- For the purposes of making a final diagnosis, laparoscopy and gonadal biopsy and withdrawal of material from the abdomen for PCR (CMV diagnosis) are required;
- Estrogen-gestagen therapy as a certain phase of treatment of patients with developing ovarian resistance if pathogenetically justified; in such cases, administration of transdermal Divigel is preferred;
- We have offered a method of treatment of ovarian resistance in patients with CMV infection showing very high efficacy.

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MARKERS OF CONNECTIVE TISSUE DYSPLASIA IN PATIENTS WITH CHRONIC VENOUSE INSUFFICIENCY

Introduction. Pelvic varicose is associated with different gynecologic diseases (myoma, ovarian tumors, endometriosis and others). Also it may be the independent disorder and cause chronic pelvic pain, sterility. The role of connective tissue disorders in varicose progressing is studied actively.

Objective: to evaluate markers of connective tissue dysplasia in female patients with pelvic varicose.

Materials and methods: The laparoscopy and physical exam were performed in 25 female patients (mean age range $32 \pm 5,5$ years) with symptoms of chronic pelvic pain. Physical examination was done to assess sixty five markers of connective tissue dysplasia by author's algorithm.

Results: Unilateral or bilateral varicose parametrial veins were found in all patients during laparoscopy. Nine patients (36%) had thinness or defects of uter-

ine wide ligaments. Another diseases of reproductive system were not found. Twenty four patients (96%) had any markers of connective tissue dysplasia, such as migraine (91%), asthenic somatotype (74%), easy haemorrhage formation (65%), vegetative dysfunction (63%), constipation (55%), joint hypermobility (49%), thorax and spine deformation (36%), vaginal prolaps I - II (25%). Combination of 6-10 markers were found in 78% cases, 10-15 markers - in 22% cases. Any disem-briogenesis stigms such as - the distorted little finger, epicanthus, teeth anomaly, deformation of external ear, sandal shaped foot were found in 85% patients.

Conclusion: Markers of connective tissue system disorder were revealed in the most of patients with pelvic varicose. It is necessary take into account for risk groups formation and choice of treatment methods for patients with this disease.

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PSYCHOLOGICAL FEATURES OF PATIENTS REACTION ON THE STRESS CONNECTED WITH LAPAROSCOPIC BY INTERVENTION

Material and methods. To assess the psychological reaction to the stress connected to the laparoscopic intervention Spilberg - Hanyin scale have been used. Comparative analysis was used in two groups of patients with fallopian tube rupture (as a result of tubal gestation). In the 1st group there were 15 patients who had undergone laparoscopic surgery. In the IInd group there were 15 patients who had undergone laparotomy. In both groups average age of patients was $28 \pm 3,1$ and $30 \pm 2,3$ respectively. We estimated correlation be-

tween degree of anxiety and risk appraisal for surgical treatment of patients with ectopic pregnancy in both groups.

Results. Most patients, who displayed high level of anxiety (75%) were found within IInd group, i.e. there was revealed correlation between level of anxiety and risk appraisal for forthcoming laparotomy ($r > 0,7$). In both groups assessment of patients reaction to specific situation (hospitalization), has displayed that level of anxiety, that was estimated by Spilberg

– Hany test, was mild (31 – 45 point; date of test authors), whereas the same indicator for the patients from IIInd group was positively higher ($44,4 \pm 6,5$ и $39,9 \pm 8,0$ correspondingly). The same time, more then 65% of patients have displayed high level of anxiety (>46) and only every tenth of patients have shown low level of anxiety (<30). The biggest increase of the indicators

of anxiety was noticed among patients who was diagnosed of ectopic pregnancy ($47,75 \pm 0,46$).

Conclusions. These parameters were directly connected to the stress caused by hospitalization with urgent surgical diagnosis. We have found that usage of laparoscopic surgery decreases level of anxiety of patients with ectopic pregnancy.

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CLINICAL SIGNIFICANCE OF ADAPTATIONAL REACTIONS OF FEMALE ORGANISM UNDERGOING LAPAROSCOPIC OPERATIONS ON UTERUS AND ADNEXA

Introduction. Laparoscopic operations on adnexa have become the "golden standard" now and those on uterus start to compete to traditional approach. But adaptational reactions of female organism and their clinical significance are not studied enough.

Material and methods. Clinical and laboratory study of 116 cases of laparoscopic operations on uterus and adnexa was performed. 86 (74%) of them were cases of benign adnexal tumors and 30 (26%) – cases of myomas. 78 (67,2%) cases were operated conservatively and 38 (32,8%) were treated radically. Type of adaptational reaction was evaluated according to L.H. Garkavy's method (1978, 1999) by correlations in WBC, which reflect the force of side influence. Statistic and discriminant analyses were held using p-criteria and Fisher's F-criteria.

Results. The most powerful influence was mentioned in radical operations on uterus, the less – in conservative operations on adnexa. In first postoperative day laparoscopic operation and its after-effects became powerful influence for 96% (25 cases) of patients operated on uterus and for 73% (66 cases) of patients operated on adnexae ($p < 0,05$). The most powerful influence among the operations on adnexae proved

to be operations due to teratomas and endometriomas with their content getting into abdominal cavity after their walls injuries or ruptures. The less powerful influence was fixed in cases of conservative operations for paraovarian cysts, even more then 20 cm in diameter. By the fifth postoperative day performed laparoscopic operation and its effects stayed powerful influence for 35,4% (41) of patients, influence of middle and low power was fixed in 64,6% (75) of patients. Discriminant analyses of significance of factors of influence showed the main role of mode of influence on tissues during the operation, volume of operation and kind of postoperative treatment. Considerable meaning was mentioned for postoperative pain levels, body temperature, intoxication indexes and WBC adaptational changings.

Conclusion. The results of this research served the pathogenetical basement for correction of using of various types of instruments, special operation techniques and adequate postoperative medicamentous treatment. Usage of received results showed the reduce of quota of patients with reactions on powerful influence in 5th postoperative day more then 4 times – to 8,6% (5 of 58 patients) in group of control.

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ESTABLISHMENT OF URGENT GYNECOLOGICAL ENDOVIDEOSURGERY IN CONDITIONS OF SMALL TOWN

Objective: to show the possibilities of structure change, used diagnostic and treatment technologies in gynecological patients of medical units in small town on the example of establishment of endovideosurgical methods and 24-hours ultrasound diagnostics.

Materials and methods: we choose 2 groups of the most frequent diseases required surgery: extrauterine pregnancy and ovarian apoplexy.

Results: in patients with extrauterine pregnancy results of treatment after laparotomy and laparoscopy were compared and showed the decreasing of hospital-

stay, operation time, durations of postoperative pains in group of laparoscopy. In case of ovarian apoplexy 24-hours ultrasound diagnostics allowed to reject surgery.

Conclusion: endovideosurgical methods and 24-hours ultrasound diagnostics allowed to create the criteria of differential diagnosis, to refuse from additional invasive procedures such as cul-de-sac puncton, to reject surgery in case of ovarian apoplexy, to replace laparotomy in urgent adnexial surgery. All these advantages led to decreasing of treatment cost, reduced intraoperative trauma and hospital-stay duration.