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

Background: genital prolaps 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 Ist and IIIrd types of collagen define mechanical structure of ligaments. The immunohistochemical investigations in cases of CTD showed sufficient expression of the Ist 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 vaginoplastics 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 colpopexy.

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 incontence.

Methods. Before surgical treatment of urinary incontence 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 incontence should have the special attention. We performed 86 operations (with vaginal and laparoscopy accseses 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 accseses) 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 incontence.

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 incontence.

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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-