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терапии блокаторы кальциевых каналов, нитраты или другие вазодилатирующие средства. При длительном сохранении олигурии возможно применение гемодиализа. При условии отсутствия тяжелого поражения других органов, устойчивая к терапии АГ и необратимая почечная недостаточность могут рассматриваться как показания к трансплантации почек. При развитии острой нефропатии необходим провести дифференциальный диагноз, в особенности при подозрении на ишемическую нефропатию, при которой иАПФ противопоказаны. При развитии хронической склеродермической нефропатии, следует проводить базисную и симптоматическую терапию, а также учитывать необходимость поддержания перфузионного давления, избегать средств, снижающих почечный кровоток и широко использовать дезагреганты и вазодилататоры [4].

Профилактика склеродермической нефропатии заключается в ранней диагностике заболевания, а также своевременном и дифференцированном лечении больных ССД.

Таким образом, почечная патология у пациентов, страдающих ССД крайне разнообразна. Пятнадцатилетняя выживаемость больных ССД без поражения почек составляет 72%, при наличии поражения почек – 13%. Причём при острой нефропатии лишь 23% пациентов живут более 5 лет [1]. Поэтому так важно уделять пристальное внимание своевременной диагностике и своевременному лечению данной патологии, что в конечном итоге позволит улучшить долгосрочный прогноз и повысить качество жизни пациентов, страдающих ССД.

#### СПИСОК ЛИТЕРАТУРЫ:

1. Ревматология: национальное руководство / Под ред. Е.Л. Насонова, В.А. Насоновой. – М. : ГЭОТАР–Медиа, 2010. – С. 534–572.
2. Ревматология: клинические рекомендации / Под ред. С.Л. Насонова. 2-е изд., испр. и доп. 2011. – С. 431–466.
3. Гусева Н.Г. Системная склеродермия. М.: Медицина.– 1975.– С. 105–122.
4. Общероссийская общественная организация «Ассоциация ревматологов России». Клинические рекомендации. Диагностика и лечение системной склеродермии (прогрессирующего системного склероза). – 2013 год.– С. 17–23.
5. Гусева Н.Г. Системная склеродермия и псевдосклеродермические синдромы. М.: Медицина. – 1993.– С.156–193.
6. Desbois AC, Cacoub P. Systemic sclerosis: an update in 2016. *Autoimmun Rev.* 2016 May. – 15 (5). – 417–26. doi: 10.1016/j. autrev.2016.01.007
7. Woodworth TG, Suliman YA, Li W, Furst DE, Clements P. Scleroderma renal crisis and renal involvement in systemic sclerosis. *Nat Rev Nephrol.*– 2016 Nov.– 12(11).– 678–691. doi: 10.1038/nrneph.2016.124
8. Гордеев А.В., Захаров А. Ю., Мутовина З. Ю., Ананьева Л. П. Современные представления о гетерогенности поражений почек у больных склеродермией. *Научно-практическая ревматология.* 2015.– 53(4).–434–445.

#### POSTOPERATIVE OPTIMIZATION IN GENITAL PROLAPSE CAUSED BY CONNECTIVE TISSUE DYSPLASIA

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**Abstract**

The issue of genital prolapse among women is still of great importance due to the influence both on medical and social status, reproductive function and quality of life of women. According to the published data, in women of reproductive age, the incidence of genital prolapse is 63,1 per cent, and in women over 50 years of age - 50%. In the structure of indications for scheduled surgical treatment, genital prolapses occupy the third place after benign tumors of genital organs and endometriosis.

The most recent and promising direction are surgeries with the use of synthetic mesh implants. Features of the postoperative period during their use are not sufficiently studied. The incidence of purulent and septic complications in the postoperative period reaches 30%. Therefore, vaginal dysbiosis before surgery, as well as that caused by the influence of stress hormones, blood loss and tissue damage during surgical treatment dramatically increases the risk of pyoinflammatory complications. Therefore, new pathogenetically justified methods of postoperative care are needed.

**Keywords:** genital prolapse, surgical treatment, infectious complications, regeneration, Depantol.

According to the latest literature, genital prolapse, along with social and medical factors, occurs against the background of connective tissue dysplasia [2, p. 136]. It is believed that it is due to both abnormal tissue metabolism, excessive collagenase activity, and because of the autoimmune response caused by the allele bw35 of the HLA - B gene, a genetic marker indicating the degradation of connective tissue [6, p.331].

38 women aged from 42 to 63 years (average age  $52,1 \pm 0,3$  years) were examined in the postoperative period. All patients were randomized into two groups according to age and nosological form of the disease [8, p. 271]. In women, the most common diagnosis was colpoptosis (75%), rectocele (32%), cystocele (65%), pelvic floor relaxation (61%). The most common surgical interventions were vaginal wall plastic, synthetic mesh implants (98%) and colpoperineolevatoroplasty (97%) [1, p.13].

We have developed a method for the complex management in the postoperative period, which includes the use of Ceftriaxone, Ornizole, immunomodulators, non-steroidal anti-inflammatory drugs, desagregants, antihistamine drugs and sedative ones [5, p. 57].

Also, we included the drug with antimicrobial and metabolic components. One of these drugs is Depantol, vaginal suppositories (JSC "Nizhpharm"), the active substances of which are dexpanthenol (0.1 g) and chlorhexidine (0.016 mg), polyethylene oxide, providing significant dehydrating effect on both the vaginal mucosa and the microbial cell [3, p.193].

To assess the effect of the proposed complex approach, patients of the 1st group (treatment, n = 18) received Depantol, 1 suppository intravaginally 2 times a day during 5 days, starting from the 1st day of the postoperative period. Patients of 2nd group (control, n = 20) received standard rehabilitation therapy. Patients in both groups were subjected to a standard medical examination prior to surgery. Clinical and microbiological assessment of the treatment effect was carried out on days 1, 6 and 10 after surgery [4, p. 88]. The material for multiple investigations in dynamics was the vaginal discharge. Therapeutic effect was assessed on the state of suture healing, absence of complaints, normalization of vaginal microflora.

Statistica 8,0 (StatSoft Inc., USA) was used for statistical assessment of the study results. The difference was considered reliable at  $p < 0,05$ .

**Goal.** To assess the effect of application of the method for complex treatment in the postoperative period after plastic surgeries using vaginal approach in genital prolapse.

**Materials and methods.** There were examined 38 patients previously divided into two groups: I group (treatment) – 18 patients received a specially developed complex therapy, including combined medicinal product Depantol. II group (control) – 20 patients received standard-of-care methods of treatment of vaginal sutures. Clinical and microbiological assessment of the treatment effect was carried out using standard methods. Material for multiple investigations in dynamics was the vaginal discharge.

**Study results:** Clinical and laboratory examination showed that the method of complex treatment provides a favorable course of the postoperative period.

**Conclusion:** The improved method of the postoperative care in patients with genital prolapse ensures its favorable course, absence of infectious complications and full regeneration.

**Results.** The retrospective analysis of 38 patients showed that 78,2% of patients had a history of extra-genital diseases. Among them, 70% indicated diseases of the cardiovascular, digestive and genitourinary system. 25% of patients had endocrine system disorders. Disease lasted from 1 to 25 years (average  $3,5 \pm 0,2$  years). Of all women examined, 19% had a history of one pregnancy, the others – two or more. 7 women (35%) were primiparous, 13 (65%) – multiparous ( $p > 0,5$ ).

Patients in both groups complained of moderately severe pain syndrome prior to surgery (49%), burning sensation (5,5%), minor vaginal discharge (55%). There was no complains of itch prior to surgery.

Results of bacterioscopy prior to surgery in all women showed the absence of inflammatory process and bacterial vaginosis. Thus, before the surgery, 31% of the patients were found to have coccal flora, 21% – rod-shaped, and in 46% of women – mixed flora was observed. [Fig. 1].

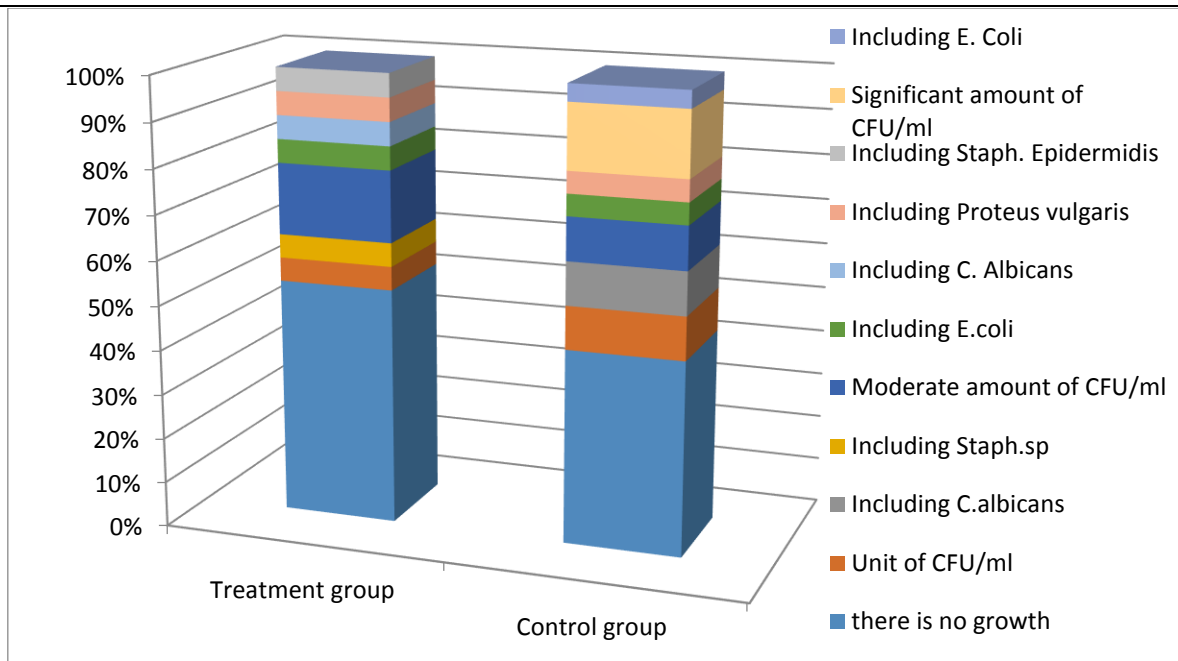


Fig.1. Bacterioscopy results in patients of both groups before treatment start

On the first day of the postoperative period, we did not find a significant difference between the groups in terms of severity of pain, hyperemia, postoperative suture swelling ( $p > 0,05$ ).

Bacteriological analysis 24 hours after surgery revealed differences in spectral analysis of microorganisms, but not in terms of microbial contamination. In the analysis of the bacteriological study results in the postoperative period, on the 6th day, a significant growth of vaginal flora and a decrease in microbial contamination in patients of the main group vs. patients of the control group were established. Thus, women in the control group had a double amount of CFU/ml, mainly due to E. coli. While only in 1/4 of patients of the main group a moderate amount of CFU/ml was observed ( $p < 0,05$ ) [Fig. 2].

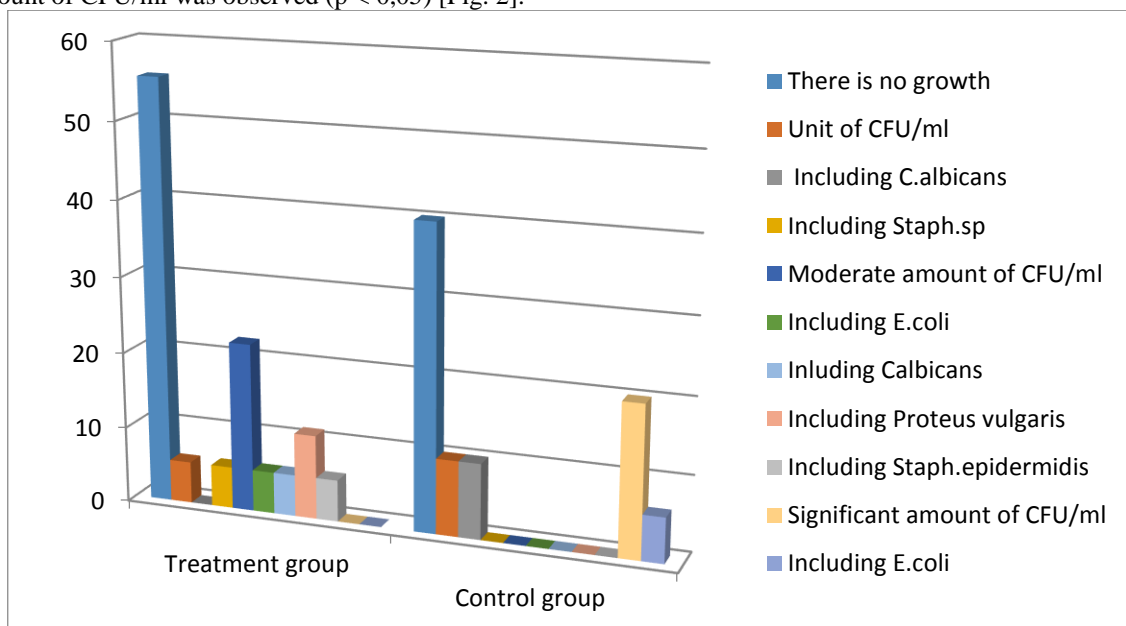


Fig. 2. Bacterioscopy results in patients of both groups on day 6 of the postoperative period.

Evaluation of the postoperative course on the 10th day revealed a significant differences between patients in different groups. Thus, in patients of the control group hyperemia and swelling of the postoperative suture were observed 4 times higher than in patients of the main group, and complaints on pain were twice more common ( $p < 0,05$ ). Bacterioscopy data analysis showed significant decrease in the ratio of desquamated epithelial cells (in %) in patients from the main group [Fig. 3].

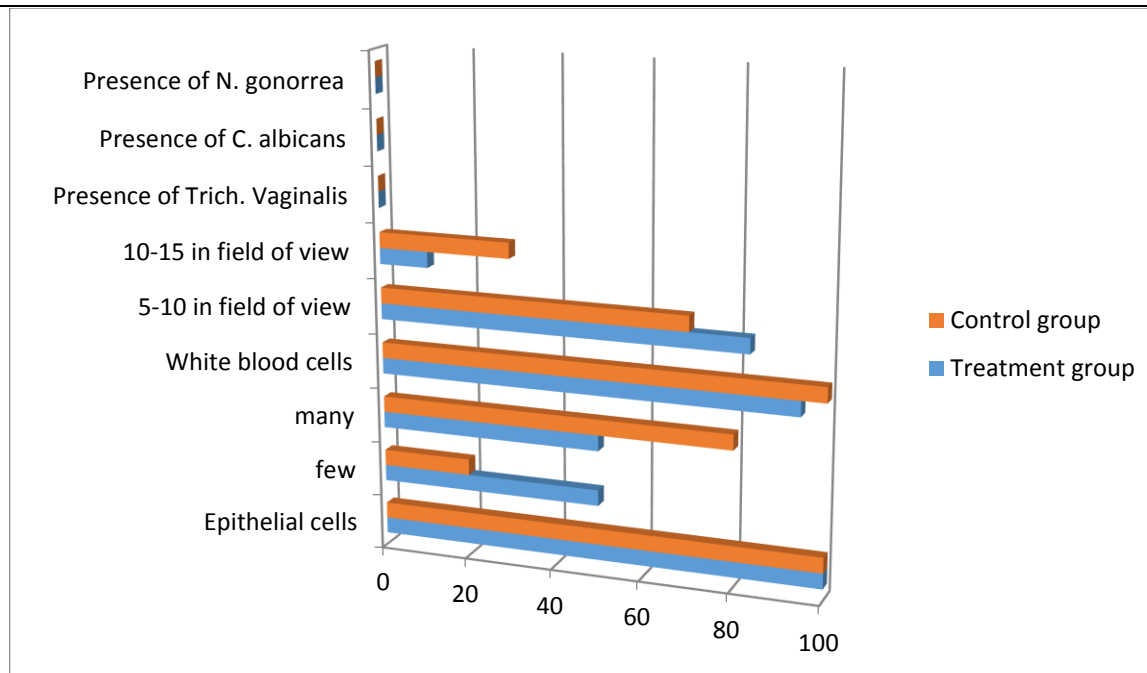


Fig. 3. Bacterioscopy results in patients of both groups on day 10 of the postoperative period.

Thus, a high clinical and microbiological efficacy (87%) of the method of complex management of the postoperative period in patients with genital prolapse after plastic surgery, performed by vaginal approach using mesh implants was established.

#### Conclusions:

The obtained results approve the efficacy of complex therapy in the postoperative period in genital prolapse, due to a significant decrease in the microbial contamination of the vagina, and the strengthening of epithelization of the postoperative wound in the postoperative period.

#### REFERENCES:

1. Filipenko PS, Malokaya Yu.S. The role of connective tissue dysplasia in the formation of mitral valve prolapse. *Wedge. Med.*, M, 2006; 84 (12): P13–19.
2. Klemenov A.V. Undifferentiated connective tissue dysplasia. M., 2005. 136 p.
3. V.A. Benyuk. PROLIFTsystem - a “golden-standard” of surgical treatment of genital prolapse in women / Benyuk V.A., Viniarskiy Ya.M., Goncharenko V.N. // *Women's health*, - 2009.- № 9 (45). -C. 193-195.
4. R.V. Dovhalev. Risk factors in prognosis and diagnostics of genital prolapse / Dovhalev R.V., Benyuk V.A., Nikoniuk T.R. // *Tavr.med- biologist. Vesnik.*-2012.-T.15, № 2, part 2 (58) .- P. 88-92.
5. L.D. Lastovetskaya, R.V. Dovhalev. Genital prolapse: Modern view on the problem/Lastovetskaya L.D., Dovhalev R.V. // *Collection of scientific articles of the Association of Obstetricians and Gynecologists of Ukraine.* - Vol. 2 (36) 2015.- p. 56-61.
6. V.E. Radzinskyi Perineology. Moscow: Medical Information Agency, 2006. - 331 p.
7. Gasparyan S.A. , Afanasyova Starichenko L.V. // *Outpatient practice - new* \_ M., 2010.\_P. 75-76
8. Popov A.A. , Manannikova, T.N. Surgical treatment of complicated and uncomplicated forms of thalium genes prolapse / Popov A.A. Manannikova so-called // *Proceedings of the 2nd Russian Forum “Mother and Child M.* 2000.-P 271
9. Radzinsky V.E. , Petrova V.D. , Babaev V.A. others Correction of genital prolapse using a synthetic implant of the Pelviks system (Linteks Russia) / Radzinsky V.E. , Petrova V.D. , Babaev BA. *Vestn. RUDN Ser. : << Medicine. Gynecology.* , - 2009. - Ne 5. P.64-71
10. Toktar L.R. Surgical correction of the pelvic floor after obstetric injury of the perineum. Author. dis. Cand. honey sciences. \_ M., 2005.P.19
11. Shalaev O.N. Surgical treatment of benign diseases of the uterus and genital prolapse using vaginal access: Author. dis. Dr. med. sciences. \_ M., 2004. P.24