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Features of Correction of Disturbances of the Vaginal Ecosystem during Pregnancy

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Annotation: Inflammatory diseases of the female genital organs remain one of the main problems in modern obstetrics. In everyday practice, there are patients with recurrent pathological leukorrhea and leukorrhea, which are difficult to respond to traditional anti-inflammatory therapy. Modern genital infections are caused largely by autoflora with a predominance of mixed microbial associations of aerobic and/or anaerobic bacteria.

Keywords: vaginal microbiocenosis; miscarriage; lactobacilli; aerobic bacteria; dysbiotic disorders.

The human physiological microflora is a collection of microorganisms that occupy many ecological niches on the skin and mucous membranes where the human body comes into contact with the environment. Microflora is a highly sensitive indicator and demonstrates quantitative and qualitative changes in response to changes in the external and internal environment. A change in the number of microorganisms of a certain type in a biotope or the appearance of bacteria that are not typical for a particular habitat can serve as a signal of adaptive or irreversible changes in the corresponding part of the microcosm. The study of vaginal biocenosis is currently the focus of attention not only of clinical microbiologists, but also of a wide range of specialists. This is due to the fact that the functioning and coordinated interaction of all links of the microcosm is ensured by the activity of the immune and endocrine systems, which reflect their functional state and depend on factors of the internal and external environment. Violation of any of these links invariably leads to disruption of the vaginal microecosystem and in the future can cause inflammatory processes in the reproductive tract.

83% of patients suffering from microsecretory disorders of the genitourinary tract experience food, drug or mixed allergic reactions, which indicates a slight decrease in adaptive mechanisms and stress of the immune system.

According to the European Society for the Treatment of Sexually Transmitted Diseases, metronidazole is also a first-line drug for the treatment of BV in pregnant women with the following dosing regimens: oral metronidazole 400 or 500 mg twice daily for 7 days or metronidazole 2 g once daily. Alternative treatments include systemic or topical clindamycin: clindamycin (cream) 2% 5 g at night for 7 days or clindamycin (capsules) 300 mg orally twice daily for 7 days; Metronidazole (gel) intravaginally twice a day for 7 days. According to the recommendations for obstetric and gynecological practice adopted in Russia, for BV in the first half of pregnancy, only local treatment with clindamycin is recommended, and systemic treatment with metronidazole or ornidazole is possible from the second half of pregnancy. The purpose of this study was to evaluate the clinical effectiveness and safety of clindamycin phosphate 2% vaginal cream (Clindacin) as monotherapy for BV in pregnant women.

Material and research methods

The observational prospective and retrospective study included 96 pregnant women aged 20-43 years, mean age 26.9 ± 1.9 years.

The examination algorithm included clinical and microbiological studies. The type of microbial stricture of the vagina was assessed according to the classification of E.F. Kira (1995). The material for microbiological studies included vaginal contents, smears from the vaginal mucosa and smears from

the cervix. Real-time polymerase chain reaction methods were used to exclude certain bacterial flora (eg, chlamydia, mycoplasma, ureaplasma).

All observed patients were divided into three groups: group 1 (n=28) - women with normal vaginal flora throughout the entire gestational period; group 2 (n=33) - women with BV treated with clindamycin; group 3 (n=35) - women with BV who did not receive pathogenic therapy for various reasons. Group 2 patients received 100 mg (one application dose) of clindamycin cream 2% applied vaginally once daily at bedtime for 6 days. The results obtained and their discussion. 338 different strains of microorganisms were isolated from pregnant women with normal endometriosis (group 1). Thus, in women with normal vaginal biocenosis, by the end of pregnancy the number of microorganisms decreased: aerobic gram-positive bacilli (Corynebacteria), cocci (staphylococci, streptococci, enterococci) and gram-negative bacilli (Enterobacteriaceae)

Aerobic gram-positive rods (Corynebacteria), cocci (staphylococci, streptococci, enterococci), gram-negative rods (Enterobacteriaceae), anaerobic gram-positive rods (Propionibacterium), cocci (Peptostreptococcus) and gram-negative rods (Bacteroides).

Patients of groups 2 and 3 diagnosed with BV complained of a large amount of yellowish-white discharge from the genitals (83%), an unpleasant odor (61%) and foamy discharge (10%). Analysis of the microflora composition in women with BV revealed 836 isolates in group 2 and 819 isolates in group 3. Of these, 468 (56%) and 442 (54%) were non-cystic anaerobes, and 368 (44%) and 377 (46%) were aerobes. The presence of anaerobic-aerobic microbiota was found in 38 (84.4%) and 34 (85%) isolates from group 2 and group 3, respectively. Monocultures of displaced anaerobes were observed only in 11 (24.4%) and 10 (25%) women, respectively, across groups. They were specific to each group respectively. Monocultures of aerobic bacteria were observed in two groups. The ratio of anaerobic to aerobic bacteria during pregnancy averaged 1.9:1.0. Since the study of the composition of the microflora in two groups of women with BV before the start of hygiene did not reveal significant differences, the authors analyzed the vaginal microflora in all patients with BV (n=85) at different stages of pregnancy.

Thus, in 73% of patients with BV in the first trimester of pregnancy, Bacteroides were isolated in 100%, Gardnerella - in 89%, Peptostreptococcus - in 74%, Propionibacterium - in 21%, Staphylococcus aureus - in 48% and Streptococcus aureus - in 48%. anaerobic bacteria.

Conclusions.

1. In women with normalized vaginal microflora, by the third trimester of pregnancy the amount of aerobic and anaerobic flora decreases against the background of an increase in the amount of Bifidobacterium and Lactobacillus spp.
2. At different stages of pregnancy, pregnant women suffering from 2.BV show a significant decrease in the average number of lactobacilli and bifidobacteria and a frequent association with a large number of anaerobic microorganisms (Bacteroides spp. and Peptostreptococcus spp.).
3. The use of clindacin cream in the second and third trimesters of pregnancy is effective and safe. During treatment with clindamycin phosphate, a decrease in the growth of anaerobic microorganisms associated with BV was noted: Bacteroidetes and Peptostreptococcus.
4. The use of 2% clindamycin vaginal cream for 6 days to disinfect BV in pregnant women helps reduce the incidence of preterm birth and postpartum complications.

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