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THE IMPORTANCE OF VAGINAL AND INTESTINAL MICROBIOMES IN WOMEN WITH MISSED ABORTION

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Relevance of the research. In recent years, numerous studies have been dedicated to the composition of the microbiocenosis of vagina and its pathology, as well as the characteristics of the large intestinal microbiome and its dysbiosis in its etiopathogenesis. However, the characteristics of the vaginal and intestinal microbiomes in women in the Republic of Uzbekistan and their interrelationship have not been studied, which further underscores the relevance of this research.

Research objective - to investigate the effect of composition of the vaginal and intestinal microbiocenosis on reproductive health of women in the Republic of Uzbekistan, Fergana region.

Research materials and methods. The study was conducted in the obstetrics and gynecology departments of the Kushtepa District Medical Association in Fergana Province from 2024 to 2026. This study is considered a prospective cohort study. The study included 164 pregnant women aged 18 to 45 years. The inclusion criteria for the study were as follows: age 18-45 years, a viable pregnancy up to 22 weeks, and women who consented to participate in the study. Exclusion criteria were as follows: severe liver and kidney diseases; oncological diseases of the digestive system and genital and urinary tract; sexually transmitted diseases, HIV, viral hepatitis B and C. One hundred twenty women with non-viable pregnancies were included in the main group. The control group comprised 44 women with clinically healthy, progressing normal pregnancies. Their vaginal microbiome was assessed in real time for qualitative and quantitative parameters using the Femoflor 16 method via polymerase chain reaction, and their intestinal microbiome was assessed using the Colonoflor 16 method, with statistical methods used to compare and confirm the significance of the differences.

Results: When the vaginal microbiome of women was studied using the Femoflor 16 test, vaginal dysbiosis was observed in 75% of cases in the main group, whereas in the control group, normosenosis was predominant, with 56,8% of women showing vaginal normosenosis ($p<0,05$). Furthermore, anaerobic dysbiosis was more frequently observed in the main group – 32,5%; $p<0,05$ – while aerobic dysbiosis was observed in 10% of cases. In the group with missed abortion, the following microorganisms were significantly ($p<0,05$) more frequently detected compared to the control group: Eubacterium spp. (61,65%), Clostridium spp. 30%, G. vaginalis 41,65%, Streptococcus spp. 28,35%, Dialister spp. and Megasphaera spp. 50%. In the control group, lactobacilli were found significantly more often than in the main group – 63,6%; $p<0,05$. A number of bacteria were found in almost equal amounts in both the main and control groups: A. vaginae – 26,7% and 25%; Leptotrichia spp., Sneathia spp., Fusobacterium spp. – 10,0% and 11,4% (>10^4 CFU/ml). When the characteristics of the gut microbiome in women were examined using the Colonoflor 16 test, intestinal dysbiosis was observed in 52,5% of cases in the main group, whereas in the control group normosenosis predominated (70,45%; $p<0,05$).

Conclusion: When the association between changes in the vaginal and intestinal microbiomes was examined, it was found that they reliably occur together more often. In the main group, vaginal and intestinal dysbiosis co-occurred in 46,65% of cases. In the control group, normosenosis was predominantly observed (56,8%). When occurring separately, vaginal and intestinal dysbiosis were significantly less common than when they co-occurred: vaginal dysbiosis was observed in 31,65% of cases, and intestinal dysbiosis in 7,5% of cases ($p<0,05$).

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