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PREGNANCY AND ASYMPTOMATIC BACTERIURIA

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Relevance. During pregnancy, special attention is given to the early detection of asymptomatic bacteriuria (AB), which is associated with the development of pyelonephritis. In most pregnant women, AB reflects colonization of the periurethral area that existed before pregnancy. There are no characteristic complaints or clinical signs that can be detected during examination for AB. Isolated bacteriuria detected in chronic pyelonephritis cannot be interpreted as AB. Untreated AB in pregnant women, even without the development of clinically evident urinary tract infection, can lead to preterm birth, pregnancy anemia, and low birth weight infants.

Aim: to identify risk factors leading to the development of asymptomatic bacteriuria and to analyze the course of pregnancy.

Materials and methods. A retrospective analysis was performed on 23 delivery records of pregnant women diagnosed with asymptomatic bacteriuria at the "2nd Clinical Maternity Hospital" (2 GCRD) in Minsk. The study used anamnestic methods (family history, life history) and clinical laboratory methods (complete blood count, biochemical blood test, urinalysis, urine test by Nechiporenko, ultrasound examination of the fetus, abdominal organs, and kidneys).

Results and their discussion. The results of our study and data from the literature show that investigating differences in the pathogenetic mechanisms of AB and urinary tract infections is an important criterion for improving prevention, diagnosis, and treatment strategies for this condition in pregnant women.

According to the literature and our data, the main risk factors for developing AB during pregnancy are characteristic anatomical and functional changes in the urinary system, primarily decreased tone of the ureters, bladder, and pyelocaliceal system due to hormonal changes, as well as mechanical compression of the urinary tract by the growing uterus, especially in the 2nd and 3rd trimesters. Laboratory analysis revealed increased urine glucose and protein (CRP), which is associated with increased glomerular filtration during pregnancy, leading to bacterial proliferation and reduced resistance of the uroepithelium to infectious invasion. On urinalysis, we noted a persistently alkaline reaction.

We analyzed the clinical manifestations of AB and found that they depend on the type of uropathogens, their virulence, resistance to antimicrobial drugs, their effect on urodynamics, and the general condition of the body.

Analysis of the pregnancies revealed complications: mild pregnancy anemia in 13% of women, arterial hypertension in 10%, premature rupture of membranes in 14%, and low birth weight infants appropriate for gestational age in 13%.

In our study, untreated AB led to acute cystitis in 50% of cases and acute pyelonephritis in 30% of cases. According to the literature, treating AB in early pregnancy significantly reduces the incidence of acute pyelonephritis later in pregnancy by 70–80% and improves fetal condition.

Conclusions:

1. Our research and literature data shows that the main risk factors for developing AB during pregnancy are associated with decreased tone of the ureters, bladder, and pyelocaliceal system due to hormonal changes and mechanical compression of the urinary tract by the growing uterus, especially in the 2nd and 3rd trimesters.

2. Pregnancy should be planned, with pregravid preparation carried out during remission of all infectious-inflammatory processes and chronic diseases.