

**UROGENITAL INFECTIONS IN PREGNANT WOMEN: MODERN ASPECTS OF
DIAGNOSIS AND PREVENTION**

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Abstract: During gestation, a woman's body undergoes physiological changes that may trigger or exacerbate urogenital infections. These conditions pose a threat to both mother and fetus, increasing the risk of preterm labor, chorioamnionitis, intrauterine infection, and neonatal complications. This article presents current data on the prevalence of urogenital infections in pregnant women, their impact on pregnancy, and modern approaches to diagnosis, treatment, and prevention. Particular attention is paid to the importance of early screening and multidisciplinary supervision.

Keywords: urogenital infections, pregnancy, STIs, vaginal microbiota, screening, preterm birth.

Introduction

Pregnancy is a complex physiological process accompanied by numerous changes in the immune, endocrine, and genitourinary systems. One of the common and potentially dangerous conditions during this period is urogenital infections (UGIs), which include both urinary tract infections and sexually transmitted infections (STIs). According to the World Health Organization (2023), up to 15% of pregnant women suffer from STIs, making this issue relevant not only for clinicians but also for public health systems.

Etiological Structure and Risk Factors

The most common pathogens of UGIs during pregnancy include:

- Chlamydia trachomatis
- Mycoplasma hominis, Ureaplasma urealyticum
- Neisseria gonorrhoeae
- Trichomonas vaginalis
- Opportunistic pathogens: Gardnerella vaginalis, Candida albicans, Escherichia coli

Risk factors include frequent changes of sexual partners, poor intimate hygiene, local immune suppression, and chronic pelvic inflammatory disease.

Clinical Significance

Many urogenital infections are asymptomatic, which complicates early diagnosis and increases the risk of serious complications:

- Premature rupture of membranes
- Chorioamnionitis
- Preterm birth
- Intrauterine fetal infection
- Postpartum infectious complications (endometritis, sepsis)

Particular concern arises when infections are detected in the second or third trimester, as they are associated with high perinatal mortality.

Diagnosis

Modern diagnostics of UGIs require a comprehensive approach:

- General clinical examination and anamnesis
- Gram-stained vaginal smear microscopy
- Bacteriological examination of urine and swabs
- Polymerase chain reaction (PCR) – the most sensitive method for pathogen detection
- Serological testing – if TORCH infections are suspected

Early detection of asymptomatic forms is a key element in preventing pregnancy complications.

Treatment

Treatment of UGIs during pregnancy must strictly adhere to safety principles for the fetus. Main therapeutic strategies include:

- Use of antibiotics permitted during pregnancy (penicillins, cephalosporins, macrolides)
- Avoidance of nephrotoxic and teratogenic drugs
- Comprehensive correction of vaginal microbiota
- Simultaneous treatment of the sexual partner when STIs are identified

Treatment should be individualized and supervised by an obstetrician-gynecologist.

Prevention

Prevention of UGIs in pregnant women includes:

- STI screening in the first trimester
- Personal and intimate hygiene practices

- Counseling on safe sexual behavior
- Sanitation of chronic infection foci before conception
- Increasing health literacy among women of reproductive age

International experience shows that implementation of prenatal screening and STI treatment programs reduces preterm birth rates by 25–30%.

Conclusion

Urogenital infections during pregnancy remain a serious clinical issue that requires a comprehensive approach. Timely diagnosis, effective treatment, and preventive measures can significantly improve outcomes for both mother and fetus. Modern medicine provides all necessary tools to reduce infectious complications, but regular follow-up and the active involvement of the patient in maintaining reproductive health remain key.

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