

DIAGNOSIS AND TREATMENT OF UREAPLASMOSIS IN MEN

Darmonov Bobirber Tokhirjonovich

Andijan State Medical institute

Ureaplasmosis in men is an inflammatory disease of the genitourinary tract. This disease refers to sexually transmitted infections. Symptoms are usually absent; the most common manifestations are fever of varying severity, urinary disorders, sexual dysfunction and infertility. Diagnosis is based on the detection of the pathogen in a scraping from the urethra, urine or prostate secretions; serological methods are allowed. Treatment is etiologic – antibacterial drugs, as well as pathogenetic and symptomatic agents.

Ureaplasmosis is a bacterial infection with a predominant lesion of the reproductive and urethra tracts. The symptoms were first described as a cause of male infertility in 1967. The prevalence of ureaplasmosis in the group of non-gonococcal urethritis is close to 16%. The frequency of isolation of pathogens from semen and vas deferens among infertile men is 5-58%, in fertile males 3-31%. It is believed that ureaplasmosis increases the likelihood of HIV infection; the role of bacteria in exacerbating immunodeficiency and the progression of HIV infection to the stage of AIDS is likely.

The causative agent of the disease is the bacterium *Ureaplasma*, the main pathogenic species of *U. parvum*, including 4 serovars, and *U. urealyticum* (10 serovars). The source of infection is a sick person, and most often with a latent form of pathology, since ureaplasmas are part of the normal flora of the reproductive organs with a colonization rate of 40-80%. Transmission of the causative agent of nosology in men occurs sexually.

The main risk factors: early onset of sexual activity, a large number of sexual partners, non-use of barrier contraceptives, symptoms of chronic inflammatory processes of the genitourinary system. Weakening of the immune status (taking glucocorticosteroids, oncopathology, HIV infection, etc.) and a lack of vitamins and nutrients significantly increase the likelihood of ureaplasmosis.

Pathogenesis

Once in the body, the bacterium attaches to the cells of the mucous membrane with the help of cytoadhesive proteins. Ureaplasmas can express phospholipases A and C, which generate pro-inflammatory prostaglandins. Then, an increase in the level of IL-6, IL-8, IL-10, brain neurotropic factor, granulocyte macrophage colony-stimulating factor, monocyte chemotactic protein-1, and macrophage inflammatory protein is recorded.

Ureaplasma produces IgA proteases, which increases the colonization of the mucous membrane by microorganisms by degrading the local immune system. The virulence and persistence of ureaplasmas is also affected by the ability of microorganisms to form biofilms. This property increases the body's persistence and increases the propensity for chronic inflammation, but biofilm formation has little effect on the permeability to azithromycin or other antibiotics.

Symptoms

The incubation period of ureaplasmosis in men can be about three weeks or more. Given the tendency of the disease to be asymptomatic, most often it is impossible to determine the time of infection. Often, the detection of bacteria occurs during an examination to determine the cause of male infertility. The first symptoms of the disease are burning, discomfort when urinating, up to painful cuts, acute pain during sexual intercourse.

Patients report an increase in body temperature, usually up to 38°C, weakness, chills, aching pain over the pubis, frequent urge to urinate, especially at night, rapid ejaculation, erectile dysfunction, decreased libido. Sometimes there are scanty transparent secretions that spontaneously stop. In the future, painful symptoms may develop, a feeling of bursting in the testicles, acute pain in the perineum in a sitting position.

Complications

The most common complications of ureaplasmosis in men are balanitis, balanoposthitis, epididymitis, orchitis, prostatitis, less often urethral strictures and symptoms of acute urinary retention. Often the occurrence of impotence is associated, among other things, with psychogenic factors of pathology (dyspareunia, decreased libido, etc.). Patients with ureaplasmosis are a risk group for the occurrence of autoimmune rheumatic diseases.

Infertility in this disease is associated with the ability of ureaplasmas to fixate on spermatozoa, which leads to a violation of their maturation, a decrease in motor activity, often lysis of male germ cells and aspermia. With a prolonged course of ureaplasmosis, the secretory activity of the prostate gland decreases, which also worsens the quality of seminal fluid.

Diagnostics

Diagnosis of ureaplasmosis in men and its treatment is carried out by urologists, less often by venereologists. Other medical specialists are involved on the basis of indications. It is important to actively identify and examine the patient's sexual partners, especially when practicing unprotected sexual relations. Main clinical, instrumental and laboratory symptoms of ureaplasmosis:

- Physical data. Objective examination reveals: hyperemia, pasty appearance of the external opening of the urethra, foreskin, glans penis, scrotum, testicular enlargement, pain during palpation; pain when sitting, palpation of the perineum, finger examination of the prostate. Less often, mucosal non-abundant discharge from the vas deferens is detected.
- Laboratory tests. For the period of exacerbations of chronic untreated or acute ureaplasmosis, leukocytosis, ESR acceleration are characteristic in the general clinical blood test, and an increase in the concentration of CRP in biochemical parameters – When examining a urethral smear, a large number of white blood cells are visualized. In the general analysis of urine, leukocyturia is determined, less often microhematuria.
- Identification of infectious agents. Detection of ureaplasmas is carried out by PCR; urine and urethral scraping are more often used, and prostatic secretions are less common. The "gold standard" is the cultural method, but due to its high cost and

complexity, it is practically not used. Serological diagnostics and microscopy of the material is impractical due to the low diagnostic value.

- Instrumental methods. To exclude an ascending infection, ultrasound of the prostate, bladder, kidneys, scrotum, and penis is recommended. In some cases, for the purpose of differential diagnosis, uroflowmetry, radiography, MRI, CT of the lumbosacral spine, irrigoscopy, colonoscopy, prostate biopsy with histological examination are performed.

Differential diagnosis of ureaplasmosis in men is carried out by laboratory verification with other urethritis of gonococcal and non-gonococcal nature. The syndrome of chronic pelvic pain (prostatodynia, abacterial prostatitis) is confirmed with repeated negative results of testing for microbial pathogens, traumatic urethritis occurs with temperature, force, chemical, radiation damage to the penis.

Treatment of ureaplasmosis in men

Treatment is usually outpatient, hospitalization is necessary for severe cases, decompensation of existing chronic diseases. A general regimen is prescribed, for patients with severe pain syndrome – bed rest or semi-bed rest. Patients with ureaplasmosis should avoid hypothermia, overheating, stressful situations, and carefully observe daily hygiene of the external genitalia.

Diet plays an important role in the treatment of ureaplasmosis – it is necessary to avoid spicy, sour, fatty dishes, carbonated drinks, and sweets. Salt and the use of marinades and seasonings should be limited. It is recommended to increase the drinking regime due to boiled water, broth of cranberries, lingonberries. Alcohol and smoking while taking medications are contraindicated; sports activities are excluded in the acute period of ureaplasmosis, with exacerbation, and are possible after the clinical manifestations subside.

Conservative therapy

The standard course of treatment for the disease usually does not exceed two weeks; clinical improvement occurs within 12-48 hours. During the period of therapy, it is recommended to abandon sexual relations, in the future use barrier contraception until negative results of tests for the presence of the pathogen are obtained. Treatment of the partner is necessary only after confirmation of the diagnosis. Most often, therapeutic measures are carried out:

1. Etiotropic agents. Effectiveness against ureaplasmas was noted among tetracycline-type drugs, fluoroquinolones, and macrolides. Most often prescribed azithromycin, josamycin, because there is a growing drug resistance of bacteria to doxycycline.
2. Pathogenetic drugs. The use of antispasmodics (drotaverin), painkillers (analgin) and nonsteroidal anti-inflammatory drugs (nimesulide), local immunostimulants (more often in the form of rectal suppositories) is indicated. Intravenous infusions of solutions – with severe general intoxication symptoms.
3. By symptomatic means. With severe inflammation with an allergic component, antihistamines are used, less often glucocorticosteroids. It is allowed to prescribe diuretic pharmaceutical preparations, a course of multivitamin and mineral complexes.

Often, doctors practice local treatment with the introduction of antiseptic agents (collargol) into the urethra, as well as physical therapy methods, such as: magnetic therapy, laser therapy of the posterior surface of the penis, prostate massage, ozone therapy, UHF therapy, electroplating of the urethra, heliotherapy, and others. Balneological and mud treatment is recommended for the chronic course.

Treatment of persistent ureaplasma pathology often requires a second course of antibacterial therapy. Reserve drugs include moxifloxacin, as well as pristinamycin. Non-drug methods of treatment are used – pelvic floor muscle training, the use of hypoallergenic cosmetics for daily intimate hygiene, a ban on long hypostatic positions, and many hours of breaks between urination.

During the treatment of ureaplasmosis, it is recommended to irrigate the head of the penis with antiseptic solutions after each urination. It is allowed to use baths with infusions of oak bark, chamomile, calendula, sage. Oral course administration of herbal preparations (water-alcohol extracts of centaury herb, rosemary leaves, etc.) does not have a convincing evidence base in the treatment of ureaplasmosis.

Prognosis and prevention

The prognosis for life is favorable, no deaths were recorded. However, there is a high risk of male infertility (76% among patients with ureaplasmosis). Infection prevention measures include: avoiding unprotected sexual contact, promiscuity, nicotine, alcohol, and drug use, a balanced diet, regular exercise, and correction of immune deficits (for example, taking antiretroviral drugs for HIV infection).

Literature:

1. Nozimjon o'g'li, S. S., & Ilhomjon o'g'li, A. N. (2024). INFORMATION ABOUT THE STRUCTURE OF THE MEMBRANE OF EPITHELIAL TISSUE AND GLANDS. *International journal of medical sciences*, 4(07), 22-27.
2. Soliyev, I., TIZIMIDA, B. S. M. T. L., & PEDAGOGIK, I. Y. U. A. V. (2023). SHART-SHAROITLARI.
3. Саломов, Ш. Н., & Хакбердев, Ш. М. (2024). Причины Сердечно-Сосудистых Заболеваний И Важность Их Профилактики. *Periodica Journal of Modern Philosophy, Social Sciences and Humanities*, 27, 76-80.
4. qizi Boymirzayeva, S. O. (2024). МАКТАБГАЧА ТА'ЛИМ ТАШКИЛОТИДА БО 'LAJAK TARBIYACHINING KREATIVLIGINI RIVOJLANTIRISH. *GOLDEN BRAIN*, 2(7), 41-47.
5. Sobirjonovich, S. I. (2023). Systemic Organization of Professional Competence, Creativity and Innovative Activity of A Future Kindergartener. *Journal of Pedagogical Inventions and Practices*, 19, 108-112.
6. Kizi, E. N. I., & Ogli, S. S. N. (2024). EVALUATION OF THE RESULTS OF PRIMARY CHEILOPLASTY IN CHILDREN WITH CONGENITAL BILATERAL CLEFT OF UPPER LIP AND PALATE. *International Journal of Medical Sciences And Clinical Research*, 4(02), 52-58.

7. qizi Turdaliyeva, N. A. (2024). MAKTABGACHA YOSHDAGI BOLALAR IJODIY QOBILIYATLARNI RIVOJLANTIRISHNING NAZARIY ASOSLARI. *GOLDEN BRAIN*, 2(7), 48-52.
8. Abdurashidov, A., & Turdaliyeva, N. (2023). DEVELOPMENT OF MANUAL WORK IN PRE-SCHOOL EDUCATION. *Science and innovation*, 2(B2), 282-286.