INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563
eISSN 2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 11, issue 01 (2024)

URINARY TRACT INFECTION. ETIOPATHOGENESIS, DISEASE-CAUSING FACTORS, CLASSIFICATION. CLINICAL PRESENTATION, DIAGNOSIS AND TREATMENT TACTICS OF URETHRITIS AND CYSTITIS

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Abstract: This article is about Urinary tract infection, Etiopathogenesis, disease-causing factors, classification and Clinical presentation, diagnosis and treatment tactics of urethritis and cystitis.

Keywords: Urinary system, human body, infection, treatment, inflammatory process.

Urinary tract infection (UTI) is an inflammatory process of the urothelium in various parts of the urinary tract that occurs in response to the appearance of pathogenic microorganisms in the urinary tract. Bacteriuria is the presence of bacteria in urine isolated from the bladder. Asymptomatic (asymptomatic bacteriuria) - the presence of one or more types of bacteria growing in the urine in an amount of more than 105 CFU/ml, regardless of the presence of pyuria, in the absence of any complaints and clinical symptoms of urinary system disease. It can be detected during a dispensary or targeted examination of the child. Acute pyelonephritis is an inflammatory disease of the renal parenchyma and pelvis, resulting from a bacterial infection. Acute cystitis is an inflammatory disease of the bladder of bacterial origin. Chronic pyelonephritis is kidney damage, manifested by fibrosis and deformation of the collecting system, as a result of repeated attacks of UTIs. As a rule, it occurs against the background of anatomical abnormalities of the urinary tract or obstruction. Vesicoureteral reflux (VUR) is the retrograde

flow of urine from the bladder into the ureter. Reflux nephropathy is focal or diffuse sclerosis of the renal parenchyma, the root cause of which is vesicoureteral reflux, leading to intrarenal reflux, repeated attacks of pyelonephritis and sclerosis of the renal tissue. Urosepsis is a life-threatening generalized pathological process accompanied by organ/multiple organ dysfunction, in which the clinical manifestations of UTI are complicated by the body's response to infection, damaging its own tissues and organs.

The term "urinary tract infection" (UTI) refers to an inflammatory process localized in various parts of the urinary system. There are infections of the lower (cystitis, urethritis) and upper urinary tracts (pyelonephritis, abscess and carbuncle of the kidney, apostematous pyelonephritis). Pyelonephritis is an infectious and inflammatory process that occurs primarily in the pyelocaliceal system and the interstitium of the kidney. In the structure of infectious morbidity, UTI ranks second and is second only to respiratory infections. The prevalence of UTIs varies by age and gender. In the first 3 months of life, boys get sick one and a half times more often than girls; by the end of 1 year of life, the frequency of UTIs among girls is already 3–4 times higher than in boys. In adults, women are affected 30 to 50 times more often than men, and up to 60% of women will experience an episode of UTI during their lifetime. Within a year, 25% of people who have had a UTI have a recurrent infection. Main symptoms of urinary tract infections:

- dysuric phenomena;
- pain in the lower abdomen and lumbar region;
- change in urine color;
- frequent urination;
- burning or pain when urinating;
- pain above the pubic bone (in women);
- bloody or foul-smelling urine;
- often accompanied by an increase in body temperature and signs of general intoxication;
- if a urinary tract infection occurs against the background of salt diathesis or urolithiasis, then the disease is more severe - with intense pain and significant impairment of the general condition;
- in women, urinary tract infections are often combined with adnexitis. This is especially dangerous at a young age, since in the future it can lead to pregnancy pathologies and even infertility.

An upper urinary tract infection may present with fever and lower back pain. In this case, we can assume an exacerbation of pyelonephritis. Pyelonephritis must be treated promptly and correctly, since the infection can spread into the blood and cause life-threatening conditions (sepsis). UTIs are often divided into uncomplicated and complicated. Simple UTIs are infections that occur in an anatomically normal urinary tract. Complicated UTI - infections in the presence of anomalies (bladder diverticula, vesicoureteral reflux, etc.) or in the presence of bacteria resistant to most antibiotics. A large number of bacteria live in the rectal area and also on our skin. Bacteria can enter the urine from the urethra, from there enter the bladder and even end up in the kidneys. Just as some people are more prone to colds, many of us are prone to UTIs. Women who have gone through menopause experience changes in the vaginal lining and a decrease in estrogen, which increases the likelihood of a UTI. Postmenopausal women with UTIs may benefit from hormone therapy. Some women are genetically predisposed to urinary tract infections.

Women who use IUDs have an increased risk compared to those who use other forms of contraception. The use of condoms with spermicidal gel also leads to an increase in urinary tract infections in women. In general, women are more prone to urinary tract infections because they have a shorter urethra than men, allowing bacteria to travel only a short distance to the bladder. You are most likely to get a urinary tract infection if there are abnormalities in the urinary tract or if instrumental procedures are used (for example, a urethral catheter). Endocrine diseases such as diabetes increase the risk of UTIs by weakening the immune system and therefore reducing the body's resistance to infection. Anatomical abnormalities in the urinary tract can also lead to UTIs. These disorders often occur in young children, but can also occur in adults. Simple UTIs are usually treated with a short course of oral antibiotics. A three-day course of antibiotics is often sufficient. However, some infections require longer treatment, up to several weeks. Depending on the type of antibiotics used, take one dose of medication per day or up to four daily doses. A few doses of the medicine may relieve pain or frequent urination, but you should still complete the full course of treatment prescribed by your doctor, even if all symptoms have passed. If UTIs are not completely treated, they can return more than once. You should also remember to drink plenty of fluids.

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