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RISKS OF DEVELOPMENT AND PROPHYLAXIS INFECTIONS OF SEXUAL WAYS IN WOMEN

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Upward infection becomes important in the development of inflammatory diseases not only sexual but also urinary tract in women. In the physiological aspect, the lower and upper divisions of the reproductive system, as well as the lower urinary tract, are a complex, multifaceted, interconnected system that combines the universality of anatomical structures, blood supply, innervation and features of the topography. In the complex, these bodies simultaneously perform resistance, excretory and barrier functions. External genital organs act as a powerful biological factor for protection against invasive infectious processes [1, p. 97-98].

The anatomical features of the organs of the urinary tract in women is in another construction of the colon carcinoma of adipose tissue, which facilitates the development of nephroptosis, as well as in the lower and almost horizontal placement of the bladder, in its large physiological capacity and in the features of the urethra. The bladder in women has an oval shape. The pressure of the cervix

often changes the shape of the bladder, creates a depression in its upper contour and gives the bladder a saddle shape. In addition, the configuration of the bladder is affected by diseases of the circulatory system and ovaries. With age, starting with the postmenopausal period, the elasticity of bladder tissues in women decreases, due to which urination may become more frequent. In other cases, on the contrary, a reduction in the tonus of the bladder leads to more fluid urination and violates its emptying [2, p. 216-220].

Special mention should be made of the importance of the influence of the balance of sex hormones on the state of the urinary organs of women. Violations in the hormonal balance lead to functional disorders in the organs of the urinary system. Under conditions of pathological processes in female genital organs or gynecological operations, dense anatomical and physiological proximity, genetic connection, general innervation, blood and lymph flow between genital organs and organs of the urinary systems can lead to violations in one or another part of the latter [3, p. 17-19; 4, p. 94-95]. Wounds in the development of the female genital area are often combined with abnormalities in the development of the organs of the urinary system, which is explained by the connection between paramesonephrine and mesonephral ducts in the embryonic period.

Thus, a number of factors of anatomical and physiological relationships between genital organs and urinary tract in women contribute to the contamination of the last microorganisms from the anogenital zone and the development of the ascending inflammatory process of the lower and upper urinary tract.

In recent years, the concept of infection of the bladder in women due to urethra due to its anatomical features has attracted many supporters. It should be determined that bacteriuria (or urinary tract infection), which is a harbinger, an initial feature and the etiological factor of acute and chronic diseases of the organs of the urinary system (peelitis, cystitis, pyelonephritis), is present in 10% of healthy men and women. During prophylactic examination, subjective-asymptomatic bacteriuria was determined in 3-7% of young practically healthy women. There is a correlation between urinary tract infection caused by *E. coli* and other bacteria in the intestinal group, as well as colonization by these bacteria of the anogenital zone and around the outer opening of the urethra.

Violation of the barrier properties of the urogenital mucous membranes caused by any causes leads to bacterial colonization of these zones and the creation of conditions for the formation of the reservoir of infection only in the outer opening of the urethra, and often in the distal department. However, bacterial invasion of the bladder is not a prerequisite for the development of the inflammatory process. The bladder in women has a significant resistance to bacterial invasion, which is due to a number of antibacterial mechanisms that continuously and effectively act in healthy women. The epithelium of the bladder (urothelium) produces and secretes a mucopolysaccharide substance on the surface that covers the surface of the cell and creates a protective layer that is an anti-adhesive factor. The

formation of this mucopolysaccharide layer is considered hormonally dependent process – estrogens affect its synthesis, and progesterone to its allocation epithelial cells. Ovarian dysfunction occurs in almost 7% of women with chronic cystitis. Up to 15% of women have dysuria during menstruation. In history, almost thrice times more likely to occur after hormonal stress.

In genesis of bladder wall inflammation in women, sexual activity becomes important. So, in most women with urinary tract infection, the onset of the disease occurs in the period of puberty and the greatest sexual activity. The variants of topographic-anatomical relationships of the outer opening of the urethra, introitus and the anterior wall of the vagina create conditions for the retrograde transport of microorganisms to the bladder in women during coitus. It is also promoted by the number of sexual partners.

Retrograde infections of the bladder are actively promoted by various instrumental interventions, during which a protective mucopolysaccharide layer on the mucous membrane of the bladder may also be damaged. Important for the ascending pathway of infection was the ability of bacteria to adhesion not only to living cells, but also to the surface of instruments (catheters, boozes, endoscopes, etc.) used for transurethral diagnostic and therapeutic interventions in recent years. This property contributes to the progressive introduction of infection during these manipulations.

In recent years, the role of genital mycoplasmas, including *Ureaplasma urealyticum*, in the development of inflammatory diseases of the genitourinary system has been noted. In addition, it should be noted the prevalence of genital mycoplasmas in humans. According to researchers in women, which was 2/3 of the number of patients with dysuria and urethral discharge, *U. urealyticum* was 45%. The definition of adequate therapy tactics for women with inflammatory urogenital diseases is always a complex problem. The choice of an antibacterial drug should be based on the results of a comprehensive clinical and microbiological examination and the results of the study of antibiotic susceptibility to opportunistic microorganisms and *U. urealyticum*. Under conditions of clinical and microbiological signs of concomitant urogenital trichomoniasis, candidiasis or other infection, treatment should be prescribed in accordance with the guidelines and standards of treatment. Patients with cystitis should also be prescribed pathogenetic and symptomatic therapy, as well as antibiotics in accordance with the susceptibility to these opportunistic pathogens [4, p. 94-95].

Prophylaxis of inflammatory urogenital diseases consists in carrying out the necessary measures of hygiene of genital organs and sexual hygiene which proceed from certain risk factors of ascending infection of the urinary tract. They need to be eliminated throughout life (some of them – from the early childhood to the mother child, then – in the transitional age – under the supervision of a mother, an adult girl and woman – on their own). Medical prophylaxis at the clinical stage, that is, at the stage of already developed pronounced inflammatory

diseases of the urogenital organs, causes the need for timely treatment to the doctor and the early initiation of treatment for acute cystitis. Women who have acute cystitis, due to the high risk of acute pyelonephritis, should be under the supervision of a urologist, they should conduct a regular control, specifically for the purpose of determining residual bacteriuria.

The problem of the active determination of asymptomatic bacteriuria in women is relevant, including for the prevention of acute pyelonephritis, especially in high-risk groups: girls of pre-school and school age, pregnant women, gynecologic patients. Importance is the prevention of recurrence of acute pyelonephritis. Persons who have a history of acute pyelonephritis, require dispensary supervision and the next appointment of antimicrobial and pathogenetic therapy until long remission occurs.

Important measures for the prevention of urinary tract infections and acute urinogenic pyelonephritis in women include, in the first place, early diagnosis and adequate therapy for inflammatory diseases of the genital system, including those associated with bacterial infectious agents that are sexually transmitted.

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