



LEUKOPLAKIA OF THE BLADDER. (Literature Review)

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SUMMARY

This article describes the concepts, prevalence, risk factors and etiology of leukoplakia of the bladder. It has been established that leukoplakia of the bladder is a typical expression of metaplasia of the transitional epithelium into squamous epithelium with keratinization, caused and maintained by chronically occurring inflammatory and neurotrophic processes in the bladder. This disease occurs exclusively in female patients aged 16-80 years, with an average age of 32.6-39.5 years. The causes of leukoplakia of the bladder are a violation of the embryonic development of the bladder mucosa, the presence of a specific infection (tuberculosis, syphilis), hypovitaminosis of vitamin A, B, inflammation, hormonal imbalance, as well as the destruction of the normal glycosaminoglycan layer of the urothelium under the influence of urogenital infection.

KEY WORDS : *bladder, leukoplakia, frequency, risk factors, etiology, morphology.*

1. DEFINITION AND PREVALENCE OF LEUKOPLAKIA OF THE BLADDER

First description of leukoplakia (cholesteatoma) belongs to R. Okitansky in 1861 year. Later year Oher reported by I.M. Pelican, which pointed out the ability of leukoplakia to cancerous transformation. Scientists have described leukoplakia of the bladder as appearing on mucous membrane silver-white or mother-of-pearl flat plaques various sizes and forms [10] A.P. Frumkin also points to the possibility of malignancy of leukoplakia: "Leukoplakia of the bladder is a typical expression of metaplasia of the transitional epithelium into squamous epithelium with keratinization, caused and maintained by chronic inflammatory and neurotrophic processes in the bladder. In some cases, the keratinizing epithelium covers significant spaces, leaving only relatively small clearings of normal-colored mucous membrane with dilated vessels, or occupies only individual areas of the bladder mucosa. The edges of the leukoplastic film are mostly cases are raised and separated, creating the false impression of being able to capture such film with forceps and remove from the mucous membrane of the bladder. Keratinizing epithelium Maybe Also encrusted phosphate salts, while losing characteristic silvery color .

IN foreign literature use the term " squamous" metaplasia". Domestic clinicians enjoy more narrow term "leukoplakia" mucous membrane shell urinary bubble [10] Under the term "leukoplakia," clinicians combine all forms of squamous cell metaplasia of the epithelium [14]. Leukoplakia of the bladder is areas of flat whitish spots - plaques on the mucous membrane of the bladder, often during endoscopy resembling the picture of "melting snow". [eleven]. In the modern world, leukoplakia is a pathological process that is characterized by a violation of the basic functions of stratified squamous epithelium: the absence of glycogen formation and the occurrence of keratinization, which are normally absent [8]. Thus: leukoplakia of the bladder is a pathological condition of the mucous membrane of the bladder, which is an area of squamous

metaplasia of the urothelium with keratinization of the integumentary layer. This is an altered mucous membrane of the bladder, which is a squamous metaplasia of the epithelium with varying degrees of keratinization in the form of foci of whitish plaque, clearly delimited from the unchanged mucosa [10,22]

It should be noted that under the term ohm "leukoplakia" in some scientific and medical sources refers to precancerous bladder diseases [8]. By data literature during cystoscopy in 63.6–100% of patients with persistent dysuria and chronic pelvic pain discover leukoplakia With location V cervix urinary bubble and vesical triangle [2]. By data authors, engaged studying given Problems, at urethroscopy at 65-100% sick with persistent dysuria and pain symptoms localized in pelvis, changes in the mucous membrane are detected urinary bubble which is yourself squamous metaplasia epithelium With various degree of keratinization (leukoplakia of the bladder) [6,21]. Researchers of several scientific discoveries [2,6] have found that this disease occurs exclusively in female patients aged 16-80 years, with an average age of 32.6-39.5 years. When assessing the results of cystoscopy, hyperemia, edema, and the presence of epithelial metaplasia were revealed. Leukoplakia in the form of squamous metaplasia of the epithelium with varying degrees of keratinization was found in in the form of foci of white, loose plaque on the mucous membrane. According to research conducted by Notova G. K, the incidence of leukoplakia decreased with age - 71% in the younger, 50% in the middle and 11% in the older age group. When assessing the frequency of occurrence exacerbations of chronic cystitis, it was revealed that frequent exacerbations (3 or more per year) were more typical for young and middle-aged women. Thus, in the younger age group, exacerbations chronic cystitis were identified V 69% cases, V average - V 59% cases, A V the eldest - only V 25%. The results obtained showed that the frequency of exacerbations of cystitis, as well as the incidence of metaplasia in women of different age groups, decreased with increasing age; therefore, you can do conclusion that metaplasia



is characteristic of younger ages, and its appearance can be associated with more frequent exacerbations of cystitis.

2 . RISK FACTORS AND ETIOLOGY OF BLADDER LEUKOPLAKIA

Al- Shukri S.H. and co-authors [2] indicate that in the development of diseases such as chronic cystitis and overactive bladder, age-related factors play an important role, such as a decrease in estrogen levels in postmenopausal period, impaired microcirculation in the wall of the bladder. The authors also trace the connection between the severity of symptoms of bladder overactivity , pain syndrome And availability leukoplakia urinary bubble at women. The results they obtained showed that the frequency of exacerbations of cystitis, as well as the incidence of metaplasia in women of different age groups decreased with increasing age , therefore, it was made conclusion that metaplasia is characteristic of younger ages, and its appearance can be associated with more frequent exacerbations of cystitis. [18]

According to some authors , main The trigger point in the development of leukoplakia of the bladder is the long-term persistence of infectious agents in the urinary tract, resulting in damage to the urothelium and metaplasia develops. [9]. The very etiology of this disease , squamous cell metaplasia, accounts for 56-68% of all chronic cystitis. [17] According to Terlizzi , a well-known lower urinary tract infection that occurs in 98% of cases of E. coli causes obvious changes in tissues urinary bubble: colonization periurethral And vaginal regions; upward penetration V clearance urinary bubble And height cells E.coli V urine V form plankton; surface adhesion and interaction With system protection epithelium urinary bubble

There are also opinions that the development of leukoplakia of the bladder is influenced by such factors as estrogenic failure, neurogenic causes, viral diseases, allergies factors.

Chronic cystitis is often accompanied by the development of squamous metaplasia of the epithelium of the bladder mucosa, sometimes with keratinization (leukoplakia), which is detected in more than 60% of cases of all forms of chronic cystitis . The process of metaplastic transformation of the epithelium can also spread to the urethra. It was noted that leukoplakia of the urinary bladder is associated with the most treatment-resistant forms of chronic cystitis, But its mechanisms development remain not before end studied.

It is assumed that infection is the causative factor of urothelial damage and the formation of metaplasia, while further alteration occurs outside dependencies from infections, leading To stand up dysuria [11]. These the data correlate with modern ideas about disturbances in the regulation of cellular proliferation and differentiation under conditions of chronic inflammation or irritation with a change in the direction of determination of the cambial stem cell and subsequent her differentiation [8].

Leukoplakia is the most common histological form of chronic inflammation of the bladder and is detected in 50–82% of patients admitted to the clinic for chronic recurrent cystitis [22].

There is evidence of growth in women menopausal frequency of occurrence disorders urination V dependencies from duration postmenopause. This contacts with a decrease in estrogen levels and against this background - involution of the transitional epithelium of the bladder and urethra, while the properties mucosa, including resistance to infectious agents. Consequently , in women menopausal period, old age is additional hormone factor, predisposing To violations urine emission And development chronic cystitis [1]. Feature currents cystitis V this age group is the development of inflammation phenomena, symptoms lower urinary ways without colonization of the urinary system with pathogenic microflora which, however, can join, aggravating state sick [19]

Historically, defects in the embryonic development of the bladder mucosa, the role of a specific infection (tuberculosis, syphilis), and vitamin A hypovitaminosis were considered as the causes of the development of squamous metaplasia. Recently, the most probable theories of the origin of leukoplakia of the bladder are inflammatory, hormonal imbalance (the influence of estrogens) the result of thermal, chemical exposure; disturbance of microcirculation in the wall of the bladder as well as destruction of the normal glycosaminoglycan layer of the urothelium under the influence of urogenital infection (Ch . trachomatis , U. urealyticum , N. gonorrhoeae , M. genitalium , Tr . vaginalis , Herpes simplex I , II).

According to Tushar Pandey Eratinizing squamous metaplasia in men is rare in urological practice with a frequency of 1:10,000. In regions where schistosomiasis is rare, it usually occurs due to chronic irritation of the inflamed bladder mucosa by bacteria. Risk factors include chronic catheterization, neurogenic bladder, vitamin A deficiency, urinary fistula, and bladder outlet obstruction. There have been reports of keratinizing squamous metaplasia progressing to squamous cell carcinoma or concomitant squamous cell carcinoma.

A.Yu. Kolmakov in 2016 described the impact of schistosome eggs (*Schistosoma haematobium*), on the bladder mucosa. The most common cause is genitourinary schistosomiasis (MS) with one of the most well-known and dangerous complications - schistosome bladder cancer (sBC). When performing cystoscopy, areas of squamous metaplasia always had clearly defined boundaries, representing thickened, slightly raised whitish spots with characteristic changes in the mucous membrane, described in detail in 1991 by E.G. Aslamazov – “sand spots” and specific granulomatous ulcerations of the urothelium . Visually , the surface of the mucous membrane was encrusted with phosphates, and the surrounding areas were intensely hyperemic. When such a picture was visualized, a biopsy of the mucous membrane was performed. The incidence of metaplasia was directly dependent on the stage of the tumor process.

The term “ verrucous ” leukoplakia refers to histological ones, but when describing the cystoscopic picture, it well reflects the thickness of the affected area. The roughness in this case is rough, reminiscent of the surface of a tongue, and the color is



cloudy white. Often such leukoplakia occurs in patients with cervical cancer or with mixed infections [7]. In chronic cystitis, the entire mucous membrane of the bladder is involved in the pathological process, the area of the bladder triangle and the bladder neck is most affected [20]. According to Tsareva A.V. [22] There are no exact statistics on the prevalence and incidence of bladder leukoplakia.

According to various authors, when i s t o c k o p i i at 63.6 - 100 % A patient with persistent dysuria , chronic pelvic pain is found to have leukoplakia located in the bladder neck and vesical triangle [5,15]. Leukoplakia is detected in 60–67% sick, located V clinic With diagnostic chronic cystitis. Disease covers mostly women of working age (from 20–50 years), much reducing quality life of patients, contributes to the development of a neurosis-like state, leading to loss of ability to work. [3.8]

CONCLUSIONS

Leukoplakia of the bladder is a typical expression of metaplasia of the transitional epithelium into squamous epithelium with keratinization, caused and maintained by chronic inflammatory and neurotrophic processes in the bladder.

This disease occurs exclusively in female patients aged 16-80 years, with an average age of 32.6-39.5 years.

The causes of leukoplakia of the bladder are a violation of the embryonic development of the bladder mucosa, the presence of a specific infection (tuberculosis, syphilis), hypovitaminosis of vitamin A.B., inflammation, hormonal imbalance , as well as the destruction of the normal glycosaminoglycan layer of the urothelium under the influence of urogenital infection.

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