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DIAGNOSTICS AND TREATMENT OF ACUTE EPIDIDYMO-ORCHITIS

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✓ ***Resume,***

This article contains an overview of recent years on this pathology. The information in the article will help practicing doctors refresh their knowledge, and thereby help to carry out modern diagnostics and treatment of patients with epididymo-orchitis.

Key words: Epididymo-orchitis, epididymitis, diagnosis, treatment.

ДИАГНОСТИКА И ЛЕЧЕНИЯ ОСТРОГО ЭПИДИДИМООРХИТА

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✓ ***Резюме,***

Данная статья содержит обзорную информацию последних лет по данной патологии. Информация, содержащаяся в статье, поможет практикующим врачам освежить свои знания, и тем самым поможет проводить современную диагностику и лечение больных с эпидидимоорхитом.

Ключевые слова: Эпидидимоорхит, эпидидимит, диагностика, лечения.

O'TKIR EPIDIDORMORITNI TASHXISLASH VA DAVOLASH

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✓ ***Rezyume,***

Ushbu maqolada ushbu patologiya bo'yicha so'nggi yillarda umumiy ma'lumot mavjud. Maqolada keltirilgan ma'lumotlar amaliyotchi shifokorlarga bilimlarini yangilashga yordam beradi va shu bilan epididimo-orxit bilan og'rigan bemorlarni zamonaviy diagnostika va davolashda yordam beradi.

Kalit so'zlar: Epididimo-orxit, epididimit, diagnostika, davolash.

Relevance

Acute epididymo-orchitis is an inflammation of the testicle and its epididymis, manifested by pain, swelling, reddening of the scrotum and fever. Epididymitis is said to be an isolated inflammation of the epididymis. When the testicle is involved in the inflammatory process, epididymo-orchitis is Referred to [1,2]. The spread of the inflammatory process to the testicle with the development of acute epididymo-orchitis is observed, according to various authors, in 10-58% of cases [3,4]. Isolated testicular inflammation - Orchitis is much less common.

Chronic epididymitis refers to epididymal pain and inflammation, usually without scrotal edema, that lasts more than six months [5]. The disease is mainly unilateral, a bilateral process is observed in 5-10% of patients [7,8]. Acute epididymitis is one of the most common infectious and inflammatory diseases of the reproductive system in men. In the structure of urgent urological diseases, patients with this pathology occupy a very significant place. According to the literature - in 4-10.2% of cases [9.10]. The incidence of infertility after

transferred epididymo-orchitis is 20-35% with unilateral defeat and 80-87% in a bilateral process [11].

In acute epididymitis, inflammation of the epididymis occurs mainly due to nonspecific and specific infectious genesis, but it can also develop as a result of viral infections, trauma, autoimmune disorders, medication (amiodarone), etc. [12]. Most often, infection occurs through the canalicular route and is a complication of urethritis, prostatitis, and cystitis. With the canalicular pathway of infection, first of all, the inflammatory process develops in the tail of the epididymis, then passes into the body, the head of the epididymis, and subsequently passes into the testicle.

Sexually transmitted infections (Chlamydia trachomatis, Neisseria gonorrhoeae and Ureaplasma urealyticum) are common causative agents in men younger than 35 years old who have promiscuous sexual relationships. In men over 35 years old and not having promiscuous sexual intercourse, gram-negative enterococci (Escherichia coli, Pseudomonas spp) are more often detected. The tuberculosis bacillus should be kept in mind, especially in persons with a previous history and in countries with a high prevalence of tuberculosis. In immunocompromised men, brucellosis, coccidioidomycosis, blastomycosis, cytomegalovirus, and candidiasis may occur. Mumps orchitis occurs in up to 40% of post-pubertal boys with mumps [13, 14].

Risk factors include men who have promiscuous sexual intercourse, the presence of purulent discharge from the urethra, catheterization of the bladder, transurethral studies. Also, acute epididymitis may be preceded by prostatitis. Anal intercourse is also a risk factor for contracting intestinal pathogens. Not infrequently, epididymo-orchitis develops in men with anatomical and functional disorders of the urinary tract. Children may have urinary tract abnormalities, ectopia of the ureters, urethral valves, vesicoureteral reflux, etc.

Diagnosis of the disease should be started with a thorough questioning: Pain in the scrotum with or without edema begins gradually. The pain is usually one-sided and in the initial stage is mainly localized in the back of the testicle (in the epididymis). Fever and chills are reported in 75% of cases. Lower urinary tract symptoms such as dysuria, frequent urination, urgency are present in about 30% of cases. Discharge from the urethra, irritation in the urethra are more common in sexually transmitted infections [15].

On examination, the patient's body temperature may be elevated. The scrotum is usually swollen from the side of the lesion, the skin is hyperemic, and the folds of the skin are smoothed. If the inflammatory process has begun recently, and the reactive dropsy is not expressed, the epididymis and the testicle can be palpated separately. With epididymitis, the epididymis is enlarged and painful on palpation. When the inflammatory process lasts several days, as well as with reactive dropsy of the testicle and epididymis, it is not possible to palpate separately. With purulent fusion of the appendage or the formation of an abscess, softened areas can be palpated. With canalicular infection, edema begins in the tail of the epididymis and spreads to the body and head. The pain subsides slightly when the testicle is lifted up. The cremasteric reflex is usually present in the early stages of the disease.

In the diagnosis of STIs, a Gram-stained urethral smear is examined or a nucleic acid amplification test (PCR) is performed for N. Gonorrhoeae, C. trachomatis. Microscopy and bacteriological examination of the middle portion of urine. If there are risk factors or clinical suspicion, testing for tuberculosis and HIV infection should be performed.

To represent the condition of the testicle and its epididymis, an ultrasound scan is performed, which can reveal inflammatory infiltrates and purulent foci. Ultrasound is also used to study the condition of the urinary tract to identify anatomical and functional disorders. Color Doppler is used to assess arterial blood flow to help differentiate epididymo-orchitis and torsion of the spermatic cord. If mumps is suspected, an enzyme immunoassay for IgM and IgG is performed [16, 17]. Differential diagnosis should be performed with testicular torsion and torsion of the hydatid of Morgagni. The basic principles of differential diagnosis are given below:

In acute epididymo-orchitis, pain begins gradually, usually mild, and intensifies as the disease progresses. The pain is relieved by raising the testicle. The body temperature rises. On palpation, a thickened and painful appendage can be identified. The skin of the scrotum from the side of the lesion is hyperemic. Testicle positions are common. Urinary symptoms such as frequent urination and burning sensation in the urethra may be present. In the analysis of urine, leukocyturia can be detected, in the analysis of blood leukocytosis. Doppler ultrasound reveals a thickening of the epididymis, foci of inflammation, increased blood flow.

With testicular torsion: the pain begins acutely, usually of a strong character. When the testicle is raised, the pain is not relieved. Usually occurs in adolescents. On examination, the testicle is located

high; there may be a transverse position. Urinary symptoms, local and general symptoms of inflammation are absent. Doppler ultrasound reveals a decrease or absence of blood flow. Torsion of the hydatid of Morgagni occurs in children. The pain is usually mild and begins gradually. One can observe swelling in the region of the epididymis head, sometimes palpate the node [18,19,20].

Treatment General recommendations

Rest, analgesics, and an elevated position of the scrotum are recommended. Non-steroidal anti-inflammatory drugs are used for pain relief and as pathogenetic therapy [21, 22]. Patients with STIs and their sexual partners should be screened for other possible STIs. They are advised to refrain from sexual intercourse until they and their partners have completed treatment and follow-up.

Etiotropic therapy

Empiric therapy should be given to all patients with epididymo-orchitis pending bacteriological and / or PCR results. The antimicrobial drug and regimen should be determined according to tests such as urethral swab, urinalysis, age, sexual history, instrumentation, or catheterization. Drugs can vary based on local resistance and recommendations. As a rule, antibiotics active against C. trachomatis and Enterobacteriaceae are prescribed at the onset of the disease. In patients with suspected C. trachomatis and M.genitalium, doxycycline and Fluoroquinolones are effective. They are also effective against Enterobacteriaceae [23, 24, 25]. The clinical response to antibiotics should be assessed after three days, and in patients with a possible or confirmed STI, after 14 days.

The following guidelines are given for surgical treatment: Surgical treatment may be required to drain an abscess or remove necrotic tissue. It is indicated when it is impossible to separately palpate the epididymis and the testicle, as well as in the presence of an abscess on ultrasound examination after the start of antibiotic therapy [26,27]. Immediate surgical treatment is indicated if testicular torsion is suspected.

Complications

Complications are more common in patients with uropathogen-associated epididymo-orchitis than in patients with STI-associated epididymo-orchitis and may include the following:

Reactive hydrocele.

Abscess formation.

Infertility.

Mumps can lead to testicular atrophy, subfertility and infertility [28, 29,30].

Conclusion

Thus, acute epididymo-orchitis is a medical and social problem, due to the frequent occurrence of severe local and general symptoms of inflammation, which require a comprehensive examination and hospital treatment of patients.

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