Inflammation and infection

Case report: Epididymal tuberculosis abscess in patient immunocompetent

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ABSTRACT

Tuberculous epididymitis is caused by Mycobacterium tuberculosis. A 30-year-old patient, with a comorbidity of atrial fibrillation, presented with pain in the left testicular for 1 year. On physical examination revealed a patient febrile at 39°C with a pain, Scrotal swelling. Laboratory tests, a hyperleukocytosis at 25000/mm³, CRP at 160 mg/l. Scrotal ultrasound showed a Collection of fluid. Surgical exploration found an abscessed cyst at the expense of the epididymis. Due to the risk of epididymis neoplasia, surgery therapy ended up in the course of pharmacotherapy and not after 6 weeks as recommended by the studies.

Introduction

Epididymitis is an important pathology because of its differential diagnosis and management. Epididymitis is often difficult to distinguish from other acute scrotal pathologies, especially acute testicular torsion. When a patient has an acute scrotal condition, it is useful to confirm epididymitis by using scrotal color Doppler ultrasonography. It has been estimated that 90 million new cases of Tuberculous epididymitis are caused by Mycobacterium tuberculosis and can occur not only from retrograde spread from the prostate and seminal vesicles but also from hematogenous dissemination. Pathologically, the characteristic finding of tuberculous epididymitis is caseating granuloma, which may form the abscess cavity and contain yellow–green caseous materials. We report a rare case of epididymal abscess of tuberculosis origin and we will discuss the epidemiology, positive diagnosis and management by reviewing the literature.

Presentation

A 30-year-old patient, with a comorbidity of atrial fibrillation on antiarrhythmic drug for 8 months, presented with pain in the left testicular for approximately 1 year, which was previously treated as an orchiepididymitis in another service. In addition, he was reported sporadic fever. On physical examination revealed a patient febrile at 39°C with a pain, Scrotal swelling (Fig. 1), reddish and non-palpable testicles, the rectal examination found a prostate estimated at 30 g painless. Laboratory tests, a hyperleukocytosis at 25000/mm³, a CRP at 160 mg/l, with a serology test HIV and syphilis was negative. Scrotal ultrasound showed a Collection of fluid (91 mm) next to epididymis suggesting an abscess (Fig. 2). Surgical exploration found an abscessed cyst at the expense of the epididymis (Fig. 3).

Our patient benefited chemotherapy using four anti-TB drugs: Isoniazid, rifampin, pyrazinamide and ethambutol for up to 9 months.

Discussion

Epididymal abscesses are an uncommon complication of epididymitis, which may occur when epididymitis is uncontrolled or untreated and are generally resistant to antibiotics. epididymitis is usually caused by Escherichia coli on Proteus mirabillis; in younger men, the most common pathogens are Chlamydia trachomatis and Neisseria gonorrhoeae. Less common causes include Streptococcus faecalis, Urea urealyticum, viral and tuberculosis. The genital tract is less affected than the urinary tract, and epididymis is the most common site of genital TB in men. Dissemination is thought to result primarily from infection descending downstream from the kidneys, but hematogenous spread has also been suggested as a possible pathway of infection to the epididymis.

Diagnosing epididymal TB can be challenging. The most critical step in attempting to elucidate a diagnosis of genitourinary TB is from the patient’s clinical history. Prior TB infection, immunocompromised states, such as human immunodeficiency virus/acquired immunodeficiency syndrome, travel to endemic areas, and immigration are important considerations when obtaining the medical history. Our patient

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was not immunosuppressed but had heart disease.

A definitive diagnosis is made by positive cultures, Ziehl-Neelsen staining, and/or histologic examination. However, staining has a low sensitivity, especially in no pulmonary TB, and cultures require up to 8 weeks for maximal sensitivity to be reached. Polymerase chain reaction (PCR) is becoming a useful clinical diagnostic tool because of its rapid detection and high sensitivity and specificity. Diagnostic medical sonography (DMS) is the best diagnostic imaging modality for evaluation of scrotal contents due to the excellent spatial and contrast resolution. In our patient, the diagnosis of certainty was made by bacteriological examination of the abscessed collection and Polymerase chain reaction (PCR).

The treatment for urogenital TB began as recommended by the literature in preoperative. However, due to the risk of epididymis neoplasia, surgery therapy ended up in the course of pharmacotherapy and not after 6 weeks as recommended by the studies.

Conclusion
A rare disease and its difficult diagnosis, isolated epididymis TB should be considered as a differential diagnosis in case Scrotal swelling. A surgical approach should be considered only in cases where the diagnosis is not clearly established or when there is a strong clinical indication such as abscesses. The peculiarity in this patient is that he does not present an immunosuppressed but a cardiopathy.

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