**Isolated tubercular orchi epididymitis with painful hydrocoele**

**Abstract**

Testicular tuberculosis is rare and accounts for only 3% of genitourinary tuberculosis cases. We report a case of tuberculous orchi epididymitis manifesting as a painful hydrocoele with a favourable evolution after conservative surgical attitude and anti-bacillary treatment.

**Key words:** orchi epididymitis, tuberculosis, hydrocoele, surgery

**Introduction**

Testicular tuberculosis is rare and accounts for only 3% of genitourinary tuberculosis cases (1). The clinical symptomatology is non-specific and the available microbiological tests are of low sensitivity. Treatment can be medical at an early stade, but the delay in diagnosis can lead to orchiectomy (2). We report a case of tubercular orchi epididymitis manifested by a painful hydrocoele with a favourable evolution after conservative surgical attitude and anti bacillary treatment.

**Clinical case**

Mr A.A., 43 years old, a chronic smoker, with no notable pathological antecedents, went to the emergency room for pain with fever on scrotal swelling that had been evolving for a year. Clinical examination found a conscious, stable patient with a temperature of 37.8 \*C and painful right scrotal swelling extending to the inguinal region. This swelling was transluminal (picture 1).



Image 1 : tuméfaction scrotale douloureuse, transluminale

The ultrasound scan (image 2) carried out as a matter of urgency revealed the presence of a scrotal swelling which was poorly limited with a thick and mobile echo gene content. This formation extends within the right spermatic cord which is swollen and oedematous. It is associated with a right testicle of normal volume, regular contours, heterogeneous echo structure with a poorly limited hypoechoic range and hypovascularisation.



Image 2: testis and scrotum swollen with echoes heterogeneous structure and hypo echogenic areas

Surgical exploration revealed a hydrocele with cloudy contents and significant swelling of the cord with the presence of fibrous tissue at the expense of the right testicle (image 3). The epididymis could not be individualised. Fluid sampling and biopsies were taken and a hydrocoele cure was performed. The Ziehl stain was positive, and cytology isolated tuberculoid granulomas.



Image 3: Significant swelling of the cord and fibrous reshaping of the testis and adnexae.

The post-operative follow-up was simple. Bacteriological and cytological studies supported the diagnosis of tuberculosis. The patient was under anti-bacillary chemo.

**Discussion**

Genitourinary tuberculosis involving the epididymis is caused by retrograde extension of the prostate and/or seminal vesicles, or by blood. The epididymal tail is most often affected, and the involvement may be unilateral or bilateral. Untreated epididymal infection can progress to orchi epididymitis. Tuberculous involvement may be manifested by a thickening of the scrotal skin, hydrocoele or scrotal abscess (3). Testicular involvement is rare and accounts for only 3% of genitourinary tuberculosis cases (1). We report one case of isolated tubercular orchiepididymitis with a painful hydrocoele as a presentation.

In 80% of the cases, patients with tubercular orchi epididymitis have a scrotal mass, which can be painful in 40-44%. Bilateral tubercular involvement is observed in 34% of cases, 4-50% may present late with an abscess or fistula and 5-10% may have an associated hydrocoele (4). It has been described that the presentation as a painful, rapidly progressing hydrocoele is due to the isolated involvement of the albuginea and vagina (5).

Ultrasonography is currently the best imaging technique to study the scrotum and its contents. It can be used to reliably differentiate between intratesticular lesions (6). Ultrasound can reveal a heterogeneous epidydimitis with hypoechoic areas (7). The ultrasound carried out in our patient's emergency revealed the presence of a poorly limited scrotal swelling with thick and mobile echo gene content. In addition to the aspects described in the literature, the right spermatic cord was swollen and oedematous with the contralateral testis which is heterogeneous and has a poorly limited hypoechoic area with hypo vascularisation.

The diagnosis can be confirmed by culture, Ziehl-Neelson staining and/or histological examination (8). The cytological study allowed the diagnosis to be made by isolating a tuberculoid granuloma with a positive Ziehl stain.

The treatment of tuberculous orchi epididymitis is essentially conservative. The classic scheme in practice is the combination of four molecules (rifampicin, isoniazid, pyrazinamide and ethambutol) for 6 months in two phases. The cure rate is over 95% (9). Surgery is recommended for patients who do not respond to medical treatment within the first 2 months or who present an intrascrotal abscess (10). Our attitude was conservative. The evolution was favourable after six months of anti-bacillary treatment.

**Conclusion**

Genital tuberculosis is rare and not often mentioned in practice. In front of a painful and feverish hydrocoele, the hypothesis deserves to be evoked. The prognosis depends on the diagnosis and treatment.

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