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CASE REPORT

Bilateral Tuberculous Orchi-Epididymitis: A Case Report and a Review of the Literature

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Abstract

Urogenital tuberculosis is secondary to infection with mycobacterium tuberculosis. It is the most severe form of an extra-pulmonary localization of the bacillus of Koch. We report the case of a 21-year-old patient, a student admitted for consultation for bilateral testicular pain that has been developing for 02 years by relapses and remissions, with onset of 01st of scrotal flow of clear fluid. History of exploratory scrototomy for suspicion of torsion of the spermatic cord two and a half years ago. The physical examination found a large acute bilateral pouch with two punctate orifices next to each testicle. The echography of the scrotum showed a cutaneous granuloma of the right purse of 07 mm in diameter; negative bacillus alcoholic acid resistant sputum, a normal chest x-ray; spermogram (azoospermia) and negative serology to HIV. An excision of the fistulous pathways was performed and found on histopathological examination a tuberculoid granuloma with caseous necrosis. The treatment consisted of antibacillary chemotherapy with favorable evolution. This observation illustrates the need to evoke a tuberculous orchi-epididymitis in front of a large painful scrotum in a man from an endemic region and shows the importance of early diagnosis.

Keywords: Bilateral Orchi-Epididymitis, Tuberculosis, Fistula, Azoospermia.

1. Introduction

Tuberculosis remains a public health problem in developing countries. It tends to affect people aged 15 to 50 years old [1]. Extra pulmonary tuberculosis has a variety of localization including skeletal, genitourinary, abdominal, gastrointestinal and central nervous system. Uro-genital tuberculosis is the most severe form of the extra-pulmonary localization of Koch's bacillus and accounts for 20 to 73% [2, 3]. The most commonly affected organs are the epididymis and the testis. It is secondary to infection with mycobacterium tuberculosis. The diagnosis of urogenital tuberculosis is difficult and often late because the symptoms are nonspecific. It is a serious disease whose early detection allows for conservative treatment. Diagnosed late, it is a cause of infertility of the couple [4]. We report a case of bilateral tuberculous orchi-epididymitis with favorable evolution under antituberculous chemotherapy.

2. Observation

Mr I. K, 21 years old, student living in Ouagadougou, was received in consultation for a bilateral testicular pain evolving for 2 years by relapses and remissions, with the occurrence of a (01) year of scrotal flow of liquid clear. History of exploratory scrototomy for suspicion of torsion of the spermatic cord two and a half years ago. The physical examination found a large acute bilateral pouch with two punctate orifices next to each testicle (Figure 1).

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Figure 1. *Two puncture-shaped fistula holes next to each testicle*

The echography of the scrotum showed a cutaneous granuloma of the right purse of 07 mm in diameter; negative bacillus alcoholic acid resistant sputum, a normal chest x-ray; spermogram (azoospermia) and negative serology to HIV. An excision of the fistulous pathways (Figure 2) was performed.

Figure 2. *Exeresis of the fistulous path*

Histopathological examination of the excision specimen revealed a tuberculoid granuloma with caseous necrosis (Figure 3).

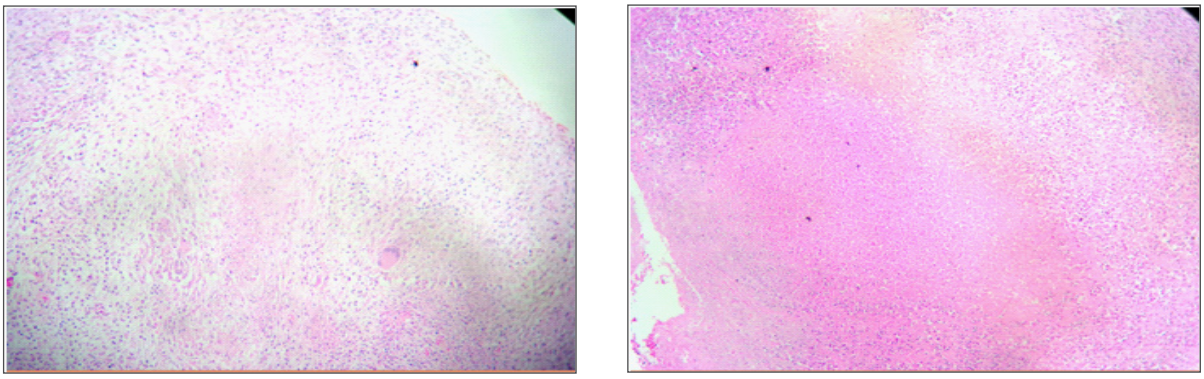

Figure 3. *Tuberculoid granuloma with caseous necrosis*

The patient then received antibacillary chemotherapy, i.e. Rifampicin (R), Isoniazid (H), Ethambutol (E) and pyrazinamide (Z), (RHZE) for two (02) months; then from RH for 04 months. The evolution was favorable, marked by the cicatrization of the fistulas (figure 4).

Figure 4. *Healing fistulas*

3. Discussion

Urogenital tuberculosis is more common in men: 62.5% of patients in the 80-case series of Benchekroun [5]. The mean age of onset varies from 38 to 40 years [5, 6]. Extra-pulmonary tuberculosis accounts for 10 to 20% of all tuberculosis cases [7]. All organs can be affected (epididymis and / or testis) during haematogenous, lymphatic or contiguous dissemination.

Isolated genital tuberculosis is rare. The essential problem of extra-pulmonary tuberculosis, and particularly of genital tuberculosis, lies in the diagnosis, which is often difficult and late in the absence of other evocative localizations, a notion of contagion or a history of tuberculosis [8] . This was the case with our patient who had been suffering from scrotal pain for over two years and who had even had a white scrototomy.

Testicular involvement is rarely isolated. It is almost always associated with the epididymis because of the proximity of these two organs. Indeed, the most frequent localization of genital tuberculosis concerns the epididymis with initial seat epididymodeferential loop [9]. Testicular involvement is secondary by contiguity. Our patient had had bilateral tuberculous orchi-epididymitis; Gueye SM & al. [10] in their series found that the bilateral form of tuberculous orchi-epididymitis accounted for only 10%.

The diagnosis of certainty is based on the detection of Koch's bacillus in sperm or urine. These examinations were not always contributory for the diagnosis as it was in our case, the anatomo-pathological examination of fragments of excision of the fistulous routes was the last resort to confirm the diagnosis.

A biological diagnosis can be made according to recent data in the literature, either by serological techniques (ELISA test) or by the polymerase chain reaction (PCR), which can detect DNA fragments of the bacillus, in case of negative urine culture [5, 11].

Although no favorite terrain is found in our patient; in general, the extra-pulmonary localization of tuberculosis is seen mainly in HIV-positive individuals. But testicular localization does not seem to be influenced by HIV infection [9].

The treatment of orchi-epididymal tuberculosis is essentially based on anti-tuberculous chemotherapy. Sometimes an epididymectomy or an orchi-epididymectomy is indicated when there is an abscess or fistula or fibrocascular lesions that progress to fistulization and compromise fertility [9]. The prognosis varies naturally according to the phases of the affection to which the patient comes in consultation and according to the precocity of the diagnosis. Delayed diagnosis and poor treatment adherence can lead to sterility that is usually definitive; this was the case of our patient who has persistent azoospermia.

4. Conclusion

Orchi-epididymal tuberculosis is exceptional even in tuberculosis endemic areas. When the disease is isolated, it is essentially a diagnostic problem. It can lead to formidable complications (azoospermia) in the case of bilateral isolated genital involvement hence the interest of early diagnosis.

5. References

1. F. Kwizera, S. Hublet, A. Bufkens, JP. Chami, S. Rysselinck. Epididymal tuberculosis revealed by retroperitoneal ganglia. Leuven med. 2017 ; 136 (1): 35-40.
2. E. Kuchavenya. Best practice in the diagnosis and management of urogenital tuberculosis. Ther adv Urol. 2013; 5 (3): 143-145.
3. Viswaroop BS. Isolated tuberculous epididymitis: A review of forty cases. J Postgrad Med. 2005; 51: 109-11.
4. MR. Ouedraogo, K. Boncoungou, SM. Ouedraogo, S. Hien, YJ. Drabo. Epididymo-testicular tuberculosis: about a case. Med. Afr. Black. 2001; 48 (5): 2017 - 218.
5. Benchekroun A., Lachkar Azzou Z., Soumana A., Farih M.H., Belahnech Z., Marzouk M., Faik M.: Uro-genital tuberculosis.About 80 cases. Ann. Urol. 1998; 32: 89-94.
6. El Khadder K., El Fassi J., Karmouni T., Tazi K., Ibnattya A., Hachimi M., Lakrissa A.: Uro-genital tuberculosis. About 40 cases. Ann. Urol. 1997 ; 31: 339-343.
7. Sow M., Fonda J.P., Diallo M.B., Yadji M., Zoung Kanyi J. Uro-genital tuberculosis in Yaoundé. Clinical, paraclinical and therapeutic aspects. About 23 cases. Med. Afr. Black. 1996; 43: 540-46.
8. A. Benchekroun, Y. Nouini, M. Zannoud, AM. Cisse, M. Marzouk, M. Faik. Epididymal tuberculosis about a case with a particular aspect in color Doppler echo. Ann urol. 2002; 36: 384-387.
9. Kouassi B, Horo K, Gbazi C, Ngom A, Koffi N, Aoussi RD et al. Orchi-epididymitis tuberculosis about 02 cases recorded in pneumology at CHU de Cocody. Mali Med. 2009; 25 (3): 68-70.

10. Gueye S.M., Ba M, Sylla C, Ndoye AK, PA Fall, Diaw JJ, Mensah A.: Epididymal manifestations of Uro-genital tuberculosis. Prog.Urol. 1998; 8: 240-243.

11. R. Mallet, M. Mouzin, X. Game, F. Braud, P. Rischmann, JP. Sarramon. Acute epididymitis indicative of tertiary tuberculosis. Prog. Urol. 2001; 11: 542-545.