

CASE REPORT

Epididymotesticular Tuberculosis: Diagnostic Difficulties and Management of a Case at Lome University Hospital

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Abstract

The development of tuberculosis in the urogenital tract poses a differential diagnosis problem with testicular tumors in adults.

Mr. A.M., aged 39 years, was referred to urology for a chronic swelling of the left testicle that had been developing for nearly eight months. Strong suspicion of a testicular tumor led to a left orchiectomy; the histological examination of which revealed a caseous follicular form of tuberculosis. The patient responded well to the drug specific treatment.

Urogenital tuberculosis requires specific drug treatment even after surgical removal of the testicle. This should be considered in cases of chronic scrotal tumor.

Keywords: Tuberculosis, testicle, orchiectomy, Togo.

1. Introduction

Tuberculosis is a serious contagious disease that affects nearly one-third of the world's population [1]. Although the lungs are the primary site for the development of tuberculosis, other organs can also be affected, most often from a confirmed or unconfirmed pulmonary focus, resulting in extrapulmonary tuberculosis [2, 3]. The testicle is one of these organs, but the rarity of this location often poses a problem of differential diagnosis with other pathologies, particularly testicular cancer in young men [4, 5]. The diagnosis is therefore often made late, based on a combination of non-specific arguments or histological examinations. In this observation, we report a case of tuberculous orchiepididymitis, diagnosed on histological examination of an orchiectomy specimen.

2. Observation

Mr. A.M., a 39-year-old soldier, married with three children and no known medical history, consulted for a painful swelling of the left testicle that had been developing intermittently for about eight months. He had been treated unsuccessfully with antibiotics and was finally referred to urology for better care. On examination, there were no urinary tract disorders or signs of hematuria.

The urological examination revealed the following findings:

- Patient in good general condition a part from subjective weight loss, not quantified;
- No fever;
- Clear urine, passed easily;

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- Enlarged left scrotum: scrotal skin was healthy with painful palpation of the testicle;
- No inguinal lymphadenopathy;
- The rest of the urological examination was normal.

Paraclinically, the cytological and bacteriological examination of the urine (ECBU) was negative, and the blood tumor markers (LDH, total HCG, alpha-fetoprotein) were normal. The ultrasound of the scrotum concluded that the appearance was

suggestive of an encysted tumor lesion or a remodeled hematoma. The hypothesis of a testicular tumor was raised, and an orchiectomy was proposed to the patient. The latter was performed via the inguinal route, with uncomplicated postoperative recovery. The surgical specimen was sent for histological examination, the report of which revealed areas of complete caseous necrosis surrounded by Langhans giant cells, epithelioid cells, and lymphoplasmacytic cells (Figure); this appearance was consistent with caseous follicular tuberculous orchitis.

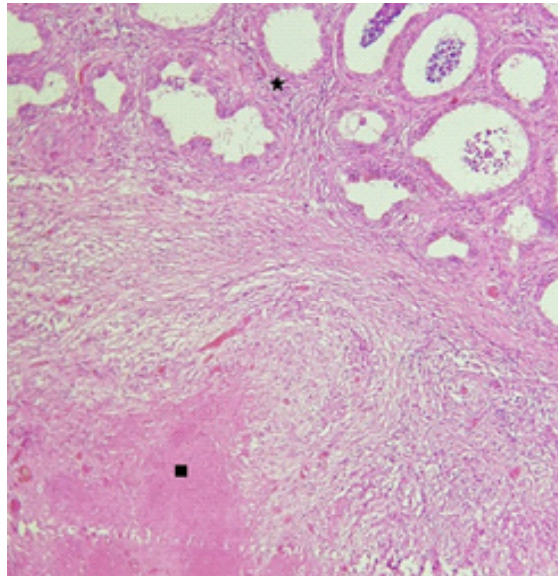


Figure. *Histological appearance of tuberculous epididymitis*
 (★) epididymal tissue
 (■) giant cell inflammatory granuloma centered on caseous necrosis

A chest X-ray was performed on the patient and came back normal, as did the sputum test for acid-fast bacilli. Retroviral serology was also negative. The patient was offered anti-tuberculosis treatment but was lost to follow-up. Three months later, the patient returned for a consultation for similar pain in his right testicle. After counseling, he agreed to take the proposed anti-tuberculosis treatment. The pain subsided after two weeks of treatment, which was well tolerated. He returned for a follow-up appointment two months later and was doing well.

3. Discussion

The testicular localization of BK is a rare clinical situation. In a study conducted by Hadj Slimen et al. [6] in Tunisia, 118 cases were reported over 25 years, representing an incidence of approximately four cases per year. This demonstrates its exceptional occurrence. Tuberculosis, an infectious disease of the respiratory system, can indeed affect other organs [7, 8]. The genital tract is the third most common site, after the lymph nodes and bones [2]. The development of

extrapulmonary tuberculosis is secondary to a previous or concomitant primary infection, with a contributing factor being immunosuppression, especially in HIV: this factor was found in 61.4% of patients in the series by Tchaou et al. Our patient, who was HIV-negative, presented with orchiepididymitis that did not resolve with non-specific antibiotic treatment. Indeed, the diagnosis of genital tuberculosis, as with extrapulmonary tuberculosis, is difficult and often delayed, especially since there are no specific signs [1, 10]. The patient's long clinical history of testicular pain reflects this. The main differential diagnosis of testicular tuberculosis is testicular cancer, which is a nightmare for any urologist [11, 12]. Indeed, a large scrotum with chronic progression in a young subject should raise suspicion of this condition [4]. In our patient, although the tumor marker levels were normal, we maintained this diagnosis because these markers do not establish the diagnosis but rather allow for follow-up after orchiectomy. Certain imaging signs are nevertheless suggestive of testicular tuberculosis, although they are not specific [13]. However, as

this examination is operator-dependent, it requires a certain amount of experience to detect these lesions and, in our case, the ultrasound scan was consistent with orchiepididymitis. According to Das et al. [11], a fine needle biopsy with pathological examination to confirm the suspected diagnosis, especially in young patients, can be performed in order to preserve the testicle. The impossibility of performing this procedure in our context, given this picture, led us to perform radical surgery. Indeed, the major risk of biopsying a tumorous testicle is the spread of a possible testicular tumor to the entire scrotum. Thus, orchiectomy was the same approach taken by Doukoure et al. [12] and Barry et al. [5] in Guinea, faced with this picture of “chronic orchiepididymitis.” The histological examination concluded that it was a caseous follicular form of tuberculosis, which is the most common form according to Ravolamanana et al. [14].

The treatment of extrapulmonary tuberculosis is well codified and requires specific antibiotic therapy. It was proposed to our patient because urogenital tuberculosis is a disease of the urinary tract. According to Golden et al. [3], genital tuberculosis in men is associated with kidney and prostate involvement. Thus, although the infected testicle was removed, it is necessary to sterilize any remaining infectious foci. Delay in treatment led to involvement of the contralateral testicle in our patient, and symptoms regressed as soon as specific antibiotics were started.

4. References

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