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Case Report

Testicular Tuberculosis with Bilateral Inguinal Lymphadenopathy

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Abstract: A 55 years old man, non-smoker, farmer came to hospital with painless swelling of the left scrotum and bilateral inguinal swelling as major complaints. A hard and indurated mass of size 4 x 4 cm fixed to testis on palpation with bilateral hard inguinal lump. Laboratory data were normal except for an elevated erythrocyte sedimentation rate (ESR), and white blood cell (WBC) differential showed neutropenia and lymphocytosis. A diagnosis of left testicular tumor was made. After inguinal swelling FNAC suggested tuberculous etiology. Patient is currently on anti-tubercular medication.
Keywords: Testis, Tuberculosis, Inguinal Lymphnode, Scrotum

INTRODUCTION

Genitourinary tuberculosis is one of the most common manifestations of extra pulmonary tuberculosis and represents 2-4% of cases of tuberculosis or approx. 17% of extra pulmonary manifestations of tuberculosis, although genitourinary involvement has been noted in 7% of the patients with tuberculosis at autopsy [1].

Dissemination of TB to the testis may result in secondary infection of epididymis. In many of these cases, there is associated tuberculous prostatitis and seminal vesiculitis, and it is believed that epididymitis usually represents a secondary spread from these other involvements of the genital tract [2, 3]. We present a case of epididymo-orchitis with scrotal and bilateral inguinal lymph node involvement with no evidence of tuberculous foci elsewhere in the body.

CASE PRESENTATION

A 55 years old man, non-smoker, farmer came to hospital with painless swelling of the left scrotum and bilateral inguinal swelling as major complaints. A hard and indurated mass of size 4 x 4 cm fixed to testis on palpation with bilateral hard inguinal lump. The right testis was normal on examination. He denied dysuria, frequency, urgency of micturition and history of any sexually transmitted or urological disease. His past medical history was also negative. The systemic examination was essentially normal. Investigations revealed haemoglobin 11.0 gm/dl, total leukocytes count 6000/mm3, differential count – neutrophils 59%, lymphocytes 39%, eosinophils 1% and basophils 0%, ESR 20mm after 1 hour, random blood sugar 110 mg/dl and normal routine urine examination and microscopic examination. Liver function tests and Renal function tests results were within normal limit. HIV, HCV, HBSAG were seronegative. FNAC of bilateral inguinal swelling suggested tuberculous lymph adenitis granuloma. To find out the tuberculous lesion elsewhere in the body, the patient was investigated by skiagram chest, sputum examination for AFB, USG of abdomen and found normal. Then FNAC of testis done and suggested tuberculous orchitis with tuberculous granulomataous lesion.

CT abdomen, pelvis and scrotum suggestive of tuberculous etiology. Patient is currently on anti-tubercular medication and Isoniazid 300mg, Rifampicin 450mg, Ethambutol 1000mg and Pyrazinamide 1500 mg was started at DOTS center (category 1).

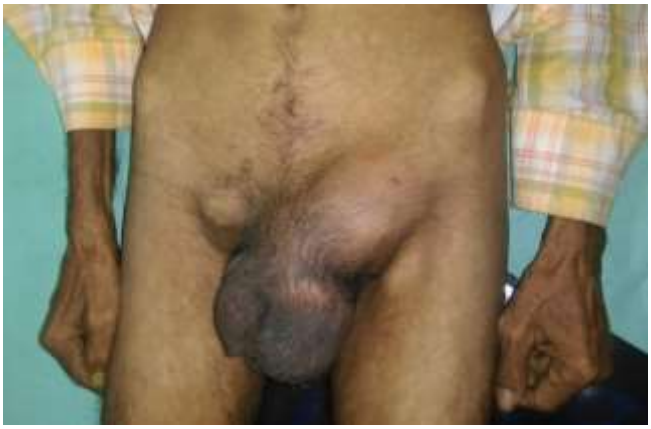

Fig-1: Pre-ATT clinical photograph

Fig-2 : Post-ATT (after 1 month)

DISCUSSION

Tuberculosis is an infectious disease caused by the bacillus mycobacterium tuberculosis. M. tuberculosis infects about one third of the world population and kills about three million patients each year and so is the single most important infectious cause of death on Earth [3]. The primary phase of M.TB infection begins with inhalation of the mycobacterium and ends with a T cell-mediated immune response that induces hypersensitivity to the organisms and controls 95% of infections. In secondary and disseminated TB, some individuals become re-infected with mycobacterium or reactivate dormant disease, or they progress directly from the primary mycobacterium lesion into disseminated disease. Genital tuberculosis is a disease of sexually active males and most commonly occurs between the ages of 20 and 40 years, although it has been reported in children also. Extra genital involvement including pulmonary and renal tuberculosis can be documented in 50% and 80-85% respectively of the patients with genital tuberculosis. The spread of tuberculosis to the epididymis is thought to occur hematogenously or by retrograde decent of organisms from the hematogenously infected prostate. Distal spread through the genitourinary tract from a renal source also may occur. A rare possibility of female to male transmission (veneral transmission of tuberculosis) has also been suggested. Testicular involvement is usually as a result of local invasion from the epididymis, retrograde seeding from the epididymis and rarely by hematogenous spread [1]. Genital tuberculosis commonly present as unilateral scrotal swelling, pain, discharging sinuses.

The urinary symptoms and sterile pyuria strongly suggest associated renal involvement which was not evident in our case. High resolution sonography is the best technique for imaging the scrotum and its contents [5].Tuberculous epidydimo-orchitis has considerable effect on the fertility. The sperm counts and motility may be reduced due to blockage of the vas and/or secondary atrophy [7].

This patient had no history of chronic cough or weight loss; however, he had a history of drenching night sweats for over a year, with a positive history of contact with a person with pulmonary tuberculosis for over a year. He neither smoked nor worked in a place that would predispose him to such a disease. In a reported case from Japan by Sensaki and colleagues in 2001[8], it was shown that the presentation and findings of tuberculosis of the testis were similar to those reported here, other than the fact that we were unable to do a computerized tomography scan (CT-scan), beta-human chorionic gonadotropin (hcG) or magnetic resonance imaging (MRI).

Our case demonstrate unusual presentation of genital tuberculosis with bilateral involvement of inguinal lymph nodes, diffused involvement of left testis and no evidence of associated pulmonary or renal tuberculosis. Tuberculous epidydimo-orchitis must be considered in the differential diagnosis of a scrotal swelling apart from testicular tumour, acute infection and inflammatory Orchitis [6].

CONCLUSION

Although it is a very rare disease, the clinician should consider tuberculosis of the testis as a possible differential of a scrotal mass. This will increase the possibility of early diagnosis, as well as proper and early management.

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