

Case Report

Tuberculous Epididymo-Orchitis: Presenting As Testicular Tumor

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ABSTRACT

Isolated testicular tuberculosis (TB) is rarely seen. A 38-year-old, farmer presented with complaints of pus forming sinus cavity in scrotum along with pain and swelling. The patient had no sign of tuberculosis. On examination a hard mass arising from the right testis was noted along with a discharging sinus cavity overlying scrotal skin. Chest x-ray and ultrasound examination of the abdomen were within normal limits. A diagnosis of right testicular tumor was made and the patient had a right orchidectomy. Histopathological examination revealed caseating granulomas along with numerous Langhan's giant cells consistent with tuberculous orchitis. The patient received anti-TB treatment for six months. The rare involvement of testis by tuberculosis needs to be mentioned.

Keywords: Caseous necrosis, Caseating granulomas, Acid fast bacilli, Orchitis.

INTRODUCTION

Genitourinary tuberculosis is most common form of extra pulmonary tuberculosis after lymph node tuberculosis. [1] It accounts for 30% of extra pulmonary tuberculosis, mainly affecting adrenal glands, kidney, collecting system of kidney and male and female genital system and pelvic cavity. [2] About 28% of this patient will have genital involvement. [3] Tuberculous epididymitis is common but tuberculous orchitis very rare; however isolated epididymo orchitis may produce diagnostic difficulty while ruling out a possible testicular malignancy. [4] This case we are reporting is isolated tuberculous epididymo orchitis with no other tuberculous foci in body.

CASE PRESENTATION

A 38-year-old, farmer presented with complaints of discharging sinus

cavity from scrotum along with pain and swelling for the 2 month. There was no history of systemic symptoms, pulmonary tuberculosis, hernia repair, epididymitis, lower urinary tract symptoms, trauma, and medical treatment. Except for mild anaemia all other parameters were within normal limits. Local examination revealed a hard mass arising from the right testis with a discharging sinus on the overlying scrotal skin. Trans-illumination test of the right scrotal contents was negative. The left testis and epididymis and the cord structures were clinically normal. Routine hematological examination showed low hemoglobin (HB) level of 8.7 g/dl and Chest x-ray, spinal x-ray, urea, electrolyte, creatinine and liver function tests were found to be normal. Retroviral screening and venereal Disease Research Laboratory (VDRL) tests were nonreactive. Urine culture was negative for AFB and the

levels of tumor marker-beta-HCG and AFP-were within normal limit, serum LDH increased. USG of right testis done? Testicular malignancy was reported. Swab of the discharge as taken for microbiology and culture, sensitivity and he was put on antibiotics. The culture yielded no growth but the pain subsides following course of antibiotics. After assessing the testicular mass, an informed consent was taken. Thereafter right orchietomy was performed and specimen sent for histopathological examination. We received a specimen of testis with attached skin measuring 7 x 4 x 3 cms in size. A sinus cavity of 2 cms was noted on the skin. Cut section of the specimen showed testicular parenchyma replaced by areas of chalky white areas [Fig-1]. Histopathological examination showed testicular tissue, most of which were replaced by Caseating granulomas composed of epithelioid histiocytes, lymphocytes, and Langhan's multinucleated giant cells, surrounded by lymphocytes and plasma cells[fig-2]Granulomas positive for acid fast bacilli. The patient was started on anti-TB therapy for six months and the response was excellent.

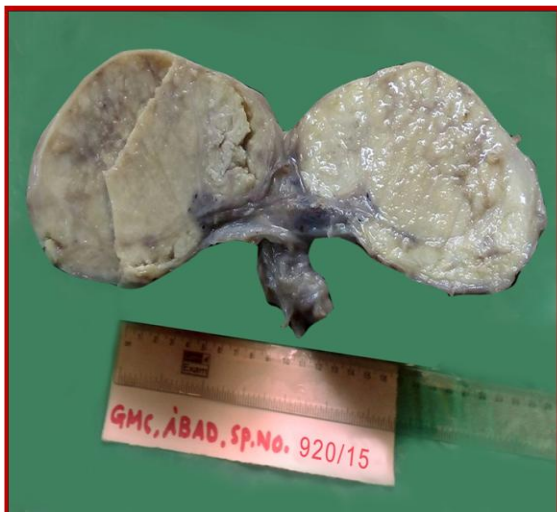


Fig-1: Cut section of the gross specimen showing the testicular parenchyma replaced by chalky white areas



Fig 2: Caseating granulomas composed of epithelioid histiocytes, lymphocytes, and Langhan's multinucleated giant cells, surrounded by lymphocytes and plasma cells and atrophic seminiferous tubule.

DISCUSSION

India has the highest TB burden, with WHO statistics for 2011 giving an estimated incidence figure of 2.2 million cases of TB for India out of a global incidence of 8.7 million cases. Prevalence figure for 2011 is given as 3.1 million. [8] Genitourinary TB is still a major health problem in many developing countries including India. Incidence of genital TB is nearly about 18%. [5] About 28% of these patients will have isolated genital involvement. [3] The most common site of genital TB is the epididymis, however isolated testicular tuberculosis is rare. [4] The epididymis is the commonest structure to be involved, followed by the seminal vesicles, prostate, testis, and the vas deferens. Genital TB occurs through hematogenic spread to the epididymis and prostate or through the urinary system to the prostate and canalicular spread to the seminal vesicles, deferent ducts, and epididymis. [2,5] Testicular involvement is mostly due to local spread from the epididymis, retrograde seeding from the epididymis and rarely by haematogenous spread. [5] Isolated involvement of testes is rare and an unusual presentation of tuberculosis. [4] TB of the lower genitourinary tract can present with irritative voiding symptoms, hematuria,

epididymo-orchitis, prostatitis, and fistulas. [2,10] The result is great thickening and the formation of a Caseous mass. Caseous masses are very dense, but after certain amount of time they generally breakdown and burst externally, resulting in tedious fistulae. Drug treatment is the first line therapy in genitourinary TB. Treatment regimens of 6 months are effective in most of the patients. [6] Isolated TB orchitis is a rare manifestation of tuberculosis. [4,9] It is difficult to diagnose TB orchitis in the absence of pulmonary or renal involvement. The most important step in diagnosing genitourinary TB is patient history. A positive culture or histological analysis of biopsy specimens possibly combined with PCR is still required in most patients for a definite diagnosis. [7]

CONCLUSION

Although it is very rare disease, the clinician should consider tuberculosis of testis possible differential diagnosis of scrotal swelling. This will increase early diagnosis and timely management.

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