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TUBERCULOUS ORCHITIS MIMICKING A TESTICULAR TUMOUR : A RARE CASE REPORT

Pathology

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ABSTRACT

A 70-year old man presented with 4 months history of left scrotal mass and had underwent left orchidectomy following a presumptive diagnosis of testicular tumour. Histopathological diagnosis of testicular tuberculosis was subsequently made, which revealed a case of isolated tuberculous orchitis. Isolated TB orchitis may closely mimic testicular tumour particularly in patients with no history of systemic TB thereby presenting a diagnostic and treatment challenges. It signifies that the careful evaluation of patients with testicular mass is extremely significant for diagnostic accuracy, optimal treatment and avoiding unnecessary surgery in case of testicular tuberculosis.

KEYWORDS

Tuberculosis, Orchitis, Acid fast bacilli, Ultrasound, Cytology.

INTRODUCTION

Tuberculosis is one of the most important infection and ancient disease. 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]. As testicular biopsy is contraindicated in suspected case of malignancy, the diagnosis of tubercular orchitis can be achieved only on histopathological examination of respected testis. Isolated tuberculous orchitis is a rare entity and may mimic testicular tumours particularly in apparently healthy patients with no other clinical symptoms or sign. Many cases coexist with pulmonary TB or tuberculosis of other parts of lower genitourinary system including bladder, ureter and prostate[4].

CASE REPORT

A 70 year old man presented with a history of left scrotal mass of 4 months duration and one month history of low grade fever. The scrotal mass was smooth and firm accompanied by testicular tender swelling. There was history of weight loss, anorexia, haematuria and pyuria. General examination revealed thin built of the patient. Urine culture was negative for acid fast bacilli. Haematological examination revealed normocytic normochromic anaemia. Chest x -rays and liver function tests were found to be normal. The levels of beta-HCG and alpha fetoprotein was within normal limit.

We received an irregularly shaped soft tissue mass that measured 10 x 5 x 3 cms in size weighed 110g. Cut surface showed white cheesy areas (figure-1) and a sac also present which was filled with exudative fluid. Histopathological examination showed testicular tissue, most of which were replaced by caseating granuloma composed of Epithelioid histiocytes, lymphocytes , plasma cells and Langhan's multinucleated giant cells, (figure-2). Granulomas positive for Acid fast bacilli. Patient was there after referred to the TB treatment centre.

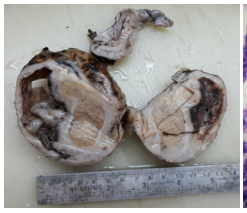

Fig-1 cut section of the gross specimen showing the testicular parenchyma replaced by white cheesy areas.

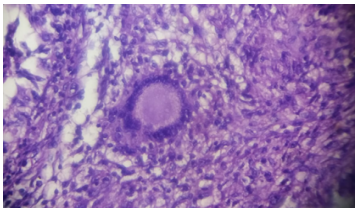

Fig-2 Testicular tissue showing necrotic material along with Epithelioid histiocytes, lymphocytes, plasma cells and Langhan's multinucleated giant cells

DISCUSSION

Tuberculosis is a global epidemic with more than 2 billion of the world population infected[5] 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[6]. Tuberulosis can involve any organ, system in the body. While pulmonary tuberculosis is the most common presentation, extrapulmonary tuberculosis is also an important clinical problem[7]. Extrapulmonary tuberculosis is important because presentation in patients may simulate malignant tumours with diagnostic and treatment challenges. Various sites of EPTB includes lymph node(The most common extrapulmonary site), GUTB , abdominal organs, CNS, skin and spine[8]. Genitourinary TB is still a major health problem in many developing countries including India. Genitournary TB is the second most common site of involvement among extra-pulmonary TB[2] and may involve kidney, ureter , bladder or genital organ. Most common site of genital TB is the epididymis, however isolated testicular tuberculosis is rare[9]. TB epididymo-orchitis is a common form of genitourinary TB but when it is isolated,, it may mimic testicular tumour[10]. The possible etiology of isolated tuberculous orchitis is that rarely the infection of the testis could be by haematogenous route rather than the usual direct extension from the epididymis. GUTB usually manifestd as increased frequency of urination, pyuria and painfull testicular swelling. It is difficult to diagnose TB orchitis in the absence of pulmonary or renal nvolvement. The most important step in the diagnosis of genitourinary TB is patient history. High index of suspicion, scrotal ultrasound and FNAC could be quite helpful in the diagnosis[11]. In addition to fine needle aspiration cytology (FNAC), polymerase chain reaction(PCR) when available has been shown to provide rapid detection of mycobacterium tuberculosis[4]. Typical picture seen on FNAC includes Epithelioid granuloma with a necrotic background. Ziehl-neelsen stain performed on alcohol-fixed slides usually confirms presence of numerous acid-fast bacilli. Treatment with anti-tuberculous drugs in FNAC or PCR confirmed GUTB case may obviate the need for surgery and limit further organ damage

CONCLUSION

Although it is rare disease, adequate evaluation of the patients with testicular mass by means of abdominal and scrotal ultrasound coupled with Fine needle aspiration cytology is critical to diagnostic accuracy and optimal treatment. Possibly this will avoid the surgery in testicular tuberculosis.

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