Unilateral Testicular Tuberculosis: A Case Report

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ABSTRACT

The second most common form of extra pulmonary Tuberculosis (TB) is urogenital tuberculosis which accounts for 2 to 20 percent of individuals with pulmonary tuberculosis and 25 to 62 percent of haematogenous seeding of the urogenital tract. Tuberculosis can affect the entire male genital tract. Testicular tuberculosis occurs in approximately 3 % of patients and unilateral testicular TB is all the more uncommon and is rarely reported in the literature. We report a case of a healthy 55 year old male presenting with left scrotal mass for 1 month, subsequently proved out to be unilateral testicular TB.

KEYWORDS
Orchitis, Extra pulmonary tuberculosis, Acid fast bacillus

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INTRODUCTION

The lungs are the major site for Mycobacterium Tuberculosis (TB) disease, but haematogenous dissemination of Mycobacterium tuberculosis can occur affecting almost every single organ in the body. Urogenital tuberculosis accounts for 2 to 20 percent of individuals with pulmonary tuberculosis and 25 to 62 percent of haematogenous seeding of the urogenital tract.[1]

Tuberculosis can affect the entire male genital tract, including the prostate, seminal vesicles, vas deferens, epididymis, testicles (like in our case), Cowper's glands, and penis. Testicular tuberculosis occurs in approximately 3 % of patients with genital tuberculosis, thereby being a rare entity.[2] Men aged 20 - 50 years old are most commonly affected and often present with painful or painless enlargement of the scrotum. Infertility may be a first symptom of genital TB due to ejaculatory duct stricture with obstruction, oligozoospermia, and low - volume ejaculate. Diagnosis of TB is often delayed due to the nonspecific nature of its presentation Diagnostic tools for urogenital TB include urine studies, radiographic imaging, tuberculin skin test, interferon - gamma release assay, and histopathology (when relevant).

CASE PRESENTATION

This 55 year old Indonesian male patient nonsmoker nonalcoholic presented with swelling in the left scrotum for 1 month with no history of fever, night sweats, loss of weight or appetite, cough or shortness of breath. There was no history of travel or contact with sick patients. Patient was diagnosed as having pulmonary TB in the recent past.

However he was not complaint with the treatment. On clinical examination, the general physical examination was normal. His pulse rate was 95 beats / min, regular, respiratory rate was 17 breaths / min temperature, 97°F, and blood pressure was 124 / 80 mmHg. Systemic examination revealed no abnormality. The right testis was normal whereas the left testicle revealed a swelling which was 5 cm × 2.2 cm in size. It was tender, hard, not fixed with overlying scrotal skin, and possible to go above the mass.

There was no discharging sinus or scrotal ulceration. Complete hologram and blood chemistry including fasting blood glucose were normal. Urinalysis was normal and urine AFB was negative. BETA Human chronic gonadotropin < 2, alpha - fetoprotein: 3.40, Carcinoembryonic antigen: 0.60, Cancer antigen 125 : 30.50 , Cancer antigen 153 : 16.70, Cancer antigen 199 : 13.94 (Figure 1).

RESULTS

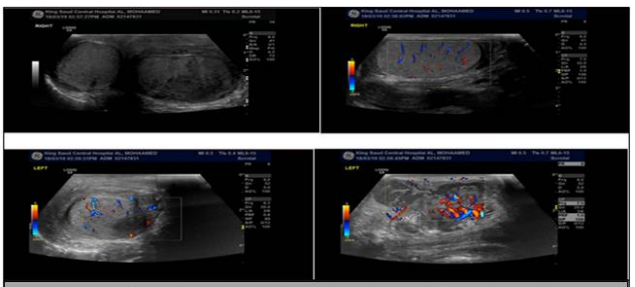

Figure 1. Ultra Sonogram Revealed Normal Size Right Testes with Normal Echo Pattern and Colour Flow Waves. Epididymis was Normal. Left Testis was Enlarged Having Intravenous Echo Pattern with Distortion and Increased Colour Flow Waves at its Inferior Part. It Measured 5.1 x 3 x 2.3 cm with Neither Hydrocele nor Varicocele.

CT chest revealed pleural pulmonary scarring with bronchiectasis and bronchial wall thickening noted at both upper lobes. CT abdomen was unremarkable. There was heterogeneous enhancing lesion measuring 2.7 x 2.2 cm seen in left seminal vesicle causing mild prominent appearance compared to the right side. The bladder, prostate and right seminal vesicle was grossly unremarkable. Surgical biopsy of the left testis showed scrotal wall with abscess, with testis measuring 6 x 4 x 4 cm, spermatic cord covered by skin measuring 3 x 1 x 1 cm. Cut section of the testis was necrotic. Acid Fast Bacilli was identified on Ziehl - Neelsen stain, Features were consistent with tuberculosis orchitis.

DISCUSSION

Tuberculosis (TB) is an infectious disease caused by Mycobacterium Tuberculosis (MTB) bacteria. Every year 7, 71, 000 cases are reported in Eastern Mediterranean Region and 113 cases per 100000 populations. The prevalence of TB in East Asia Region is 226 cases per 100000 populations. Urogenital Tuberculosis (TB) is the third most common form of extra pulmonary tuberculosis. The prostate, epididymis and seminal vesicles are the most commonly affected sites making the testes a very rare site. Of patients with pulmonary TB, 2 to 20 % of them develop urogenital tuberculosis mainly through hematogenous seeding. The major differential diagnoses of tuberculosis orchid - epididymitis are testicular tumor, testicular torsion, bacterial epididymo - orchitis and Sarcoidosis. There is usually an overlap between the testicular tumors and Tuberculosis epididymo - orchitis. Usually such cases mislead us to think of malignancy and only after orchiectomy is the diagnosis arrived at as to being tuberculous epididymo - orchitis like in our patient.

This could be due to TB orchitis still being a rare entity and not though as an initial diagnosis. However, this diagnosis is based on Fine Needle Aspiration Cytology (FNAC) thus avoiding the need for an unnecessary orchiectomy. Chest x - ray, sputum AFB should be done in all cases to know if there is pulmonary TB as the primary source. Since

urogenital TB is contagious and is a cause of infertility and abscess with scrotal sinus formation, it is important to suspect it in selected cases and evaluate as appropriate. The treatment options are medical and surgical with anti - TB medication and orchiectomy, respectively with the latter being indicated when there is abscess formation within the testis.

CONCLUSION

In a patient presenting with scrotal swelling, the Physician should bear in mind the differential diagnosis of unilateral tuberculous epididymo - orchitis because of the availability of medical treatment options, more so to save the testis. Unilateral tuberculous epididymo - orchitis though rare should be considered in selected cases.

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