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Case Report

Medicine

Unilateral Tb Epididymo-Orchitis with Scrotal Fistula- A Case Report

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Abstract: Tuberculosis is one of the most common worldwide diseases that remain almost unaltered in prevalence for the past few years. Genitourinary tract tuberculosis is common, but when associated with scrotal fistula it is a rare presentation. A 50 years old male came to the hospital with the complaints of pricking pain and swelling in the left side of scrotum for the past 2 months. He had history of smoking for past 40 years, on examination swelling of size approximately 6x5 cm present in left side of scrotum, globular in shape; penis pushed to right side was present, lower part of the swelling was firm to hard in consistency, left cord thickness was present and fixity to skin was also present. There was a small fistulous opening present in the left side of scrotum with no active discharge. Bilateral inguinal lymph nodes were palpable. This is a rare case presentation of tuberculous epididymo-orchitis with scrotal fistula leading to testis removal. Initially emperical treatment was started for TB epididymo-orchitis which turned unresponsive, so he was then proceeded for surgery to avoid further disease progression. This case was managed radiologically, clinically and pathologically. This case report shows how the case was managed and followed up.Since symptoms of TB epididymo-orchitis are milder when compared to the symptoms of pyogenic epididymo-orchitis, they appear to physicians in later advanced stages. Tuberculosis should be considered in Patients with mild symptoms of epididymo-orchitis, mainly in those with HIV, immunosuppressive conditions and endemic areas.

Key words: Epididymitis, Orchitis, Fistula, Tuberculosis

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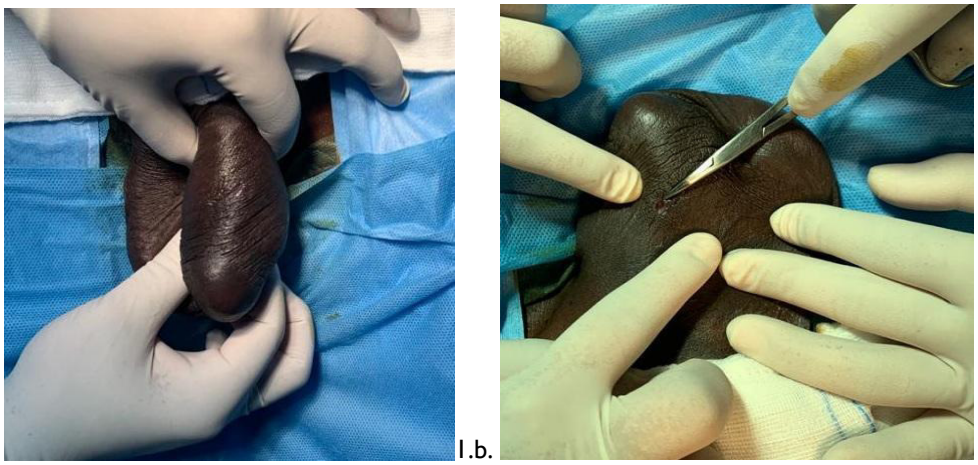
1. INTRODUCTION

Tuberculosis is one of the most common infectious diseases caused by Mycobacterium tuberculosis. About one third of the populations across the globe are affected.[1] The prevalence of tuberculosis in Iran is 33 for 100000 population.[2] Extra pulmonary cases manifests at around more than 20%.[3] Second among the most common type of extra pulmonary tuberculosis is urinary and genital tuberculosis that includes TB epididymo-orchitis.[4] The genitourinary TB cases comprises of almost 28%, which itself accounts for 30% of nonpulmonary tuberculosis,[5] the genitalia is merely involved.[6] The infection in prostate is due to urine released from renal tuberculosis leads to secondary's with constitutes 85% of epididymal lesion.[7] Primary source causes hematogenous spread which leads to settlement of TB bacilli on epididymis.[8] This case report is about TB Epididymo-orchitis with scrotal fistula without any evidence of TB elsewhere in the body. The clinical significance in this case is unilateral involvement (scrotum, epididymis and testis) with other testis being normal

2. CASE REPORT

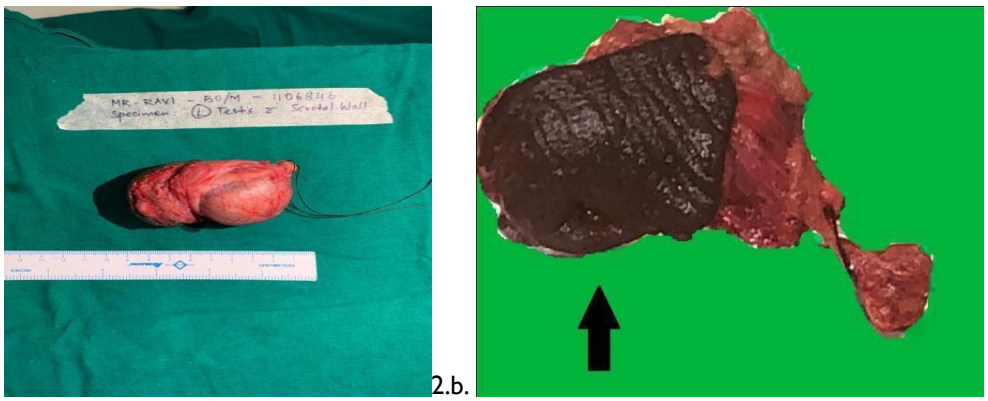
A 50 years old male came to the hospital with the complaints of pricking pain and swelling in the left side of scrotum for the past 2 months, which gradually increased to attain the present state. The pain usually aggravates at night and is relieved with native treatment. No previous history of tuberculosis or any other comorbidities. He had no significant family history. He gives a history of consumption of alcohol occasionally for 20 years and smoking for the past 40 years (4/day). On examination, vitals were stable. Systemic examination appears to be normal. Local examination of genital region shows a swelling of size approximately 6x5 cm present in the left side of scrotum, globular in shape; skin over the swelling appears normal, scrotal skin rugosity present, penis pushed to right side [Fig1]. No warmth and tenderness, the swelling upper part is soft in consistency and lower part is firm to hard in consistency, left cord thickness present, left testis not palpable separately, swelling fixity to skin present. Scrotal skin thickness present. Right scrotum, testis and cord structures are normal on palpation, a small fistula present in the left side of scrotum with no active discharge [Fig.3]. Bilateral inguinal lymph nodes palpable. Routine baseline investigations were done, ESR was raised and Mantoux was tested positive. Lactate dehydrogenase, Alpha-Fetoprotein and Betahuman chorionic gonadotropinwere within normal range, urine AFB was negative. MRI scrotum was done which showed TB epididymo-orchitis with prostate and seminal vesicle involvement.



1.a. 1.b.

Fig1.a. Preoperative image of Left side scrotal swelling.b.Scrotal fistula

He was then taken up for surgery. The Left cord structures and the testis involving the scrotal skin was removed [Fig.2]. The biopsy was sent for Histopathological examination and Cartridge based nucleic acid amplification test. HPE showed features consistent with necrotizing granulomatous orchitis with tuberculosis [Fig.3] and CBNAAT of the biopsy showed Positive for Tuberculosis. Post operatively he was uneventful. His condition improved and hence discharged with Anti tuberculosis therapy after pulmonology consultation, he was under regular follow up for 6 months and then completed the course.



2.a. 2.b.

Fig2.a.Excised left testis with scrotal skin 2.b.Scrotal Fistula

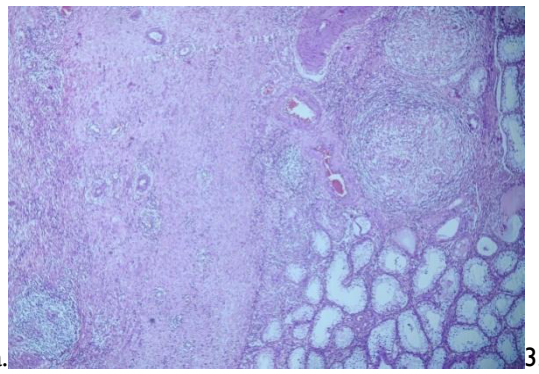
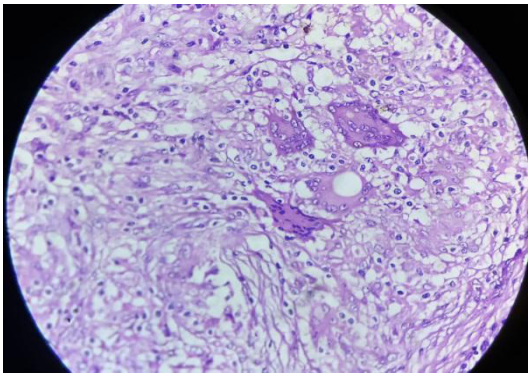
3.a.  3.b. 

Fig.3 a. Seminiferous tubule with adjacent area showing caseating epitheliod granuloma 3.b.Granulomas with langhans type of gaint cells

3. DISCUSSION

The commonest age for TB epididymo-orchitis is 20 to 50 years of age.[9] The confirmed diagnosis is made by identifying *M. tuberculosis* in seminal fluid or urine,[10]however ,the additional support to the diagnosis is by tissue samples and histological examinations.[11] Recently *M. tuberculosis* is detected by PCR alternatively.[12] It may be difficult to diagnose TB only by urine sample smear and radiological imaging.[13] Bacterial epididymo-orchitis and malignancy are most likely diagnosis of swelling and tenderness of scrotum. Histopathology and culture is the only distinguishing factor to identify TB epididymo-orchitis from bacterial epididymo-orchitis and malignancy. Epididymis, prostate, testis and seminal vesicles are the common sites to be involved.[14,3]Almost 62% and 64% of patients had renal tuberculosis with TB epididymo-orchitis had renal tuberculosis as per case studies on genital tuberculosis in male.[15,16]Other study shows, extra genital involvement is about 80 % in patients with TB epididymo-orchitis. Chest X-ray of 69% of TB epididymo-orchitis patients had pulmonary tuberculosis.[16] In this case, involvement of scrotal wall shows advanced, extensive genital disease.[9] Apart from the involvement of left testis, epididymis and scrotal wall, there was no involvement on right side clinically. This case of unilateral TB epididymo-orchitis with scrotal fistula can be considered as a rare presentation. TB epididymis also have similar features of pain, scrotal swelling, and urine culture and sensitivity positive for M. tuberculosis, anyhow the concomitant tuberculosis in other organs will be absent which is the major difference when compared with the present case. Since symptoms of TB epididymo-orchitis are milder when compared to the symptoms of pyogenic epididymo-orchitis, they appear to physicians in later advanced stages. Tuberculosis should be considered in Patients with mild symptoms of epididymo-orchitis, mainly in those with factors like HIV, immunosuppressive conditions and endemic area. In this case TB epididymo-orchitis presented with a scrotal fistula was managed with high inguinal orchidectomy and anti tubercular therapy.

4. CONCLUSION

Although it is a very rare disease, Tuberculosis of testis should be considered as a possible differential diagnosis when you see a case of scrotal swelling with a sinus or fistulous opening in the scrotal skin. This will increase the early diagnosis of the disease and management, which might limit the disability and help in early starting of antitubercular therapy.

5. INFORMED CONSENT

Consent has been obtained from the patient with regards to the use of the pictures for publication.

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NIL

7. AUTHOR CONTRIBUTION STATEMENT

Dr. P.B.Tarun Teja and Dr. Barathi Raja. K planned, designed, and acquired the data for this study. Dr. Karthikeyan S and Dr. Sasikumar.P examined the data and provided essential inputs for paper design. All authors contributed to the final publication by discussing the case, technique, and results.

8. CONFLICT OF INTEREST

Conflict of interest declared none.

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