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Case Report

A rare case of isolated tubercular epididymitis

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ABSTRACT

Isolated tuberculous epididymitis (ITE), defined as tuberculous epididymitis without clinical signs of kidney. Here we present a middle-aged man who presented with swelling in the right scrotum since, 45 days. On clinical examination, mild tenderness was noted in the right scrotal region, a course of oral antibiotics was started but again patient presented with same complaints after 15 days. Fine needle aspiration cytology of testicular swelling was performed which was confirmatory of tuberculous epididymitis. The patient was advised anti-tuberculosis treatment, which he continued for a duration of 6 months. Following the anti-tubercular treatment, there was no evidence of recurrence

Keywords: Isolated tuberculosis, Epididymal tuberculosis, Fine needle aspiration cytology, Testicular swelling

INTRODUCTION

Pulmonary tuberculosis is the most common form of tuberculosis.[1] And extrapulmonary TB is seen only in 10-15% cases.[2] Genitourinary TB represents 2-4% of the tuberculosis cases or approximately 15% of TB extrapulmonary manifestations.[3] In most cases, it clinically mimics other testicular lesions, such as testicular tumors, acute infection, infarction, or even testicular torsion. Middle aged males, especially of 20-40 years of age are most commonly affected, and presented with swelling of the scrotum with or without pain, with or without discharging sinus. Infertility may occur. The elderly age group has created diagnostic dilemma between the malignant testicle and testicular tuberculosis. USG of the scrotum and fine needle aspiration cytology confirm the diagnosis. For exclusion of testicular malignancy testicular biopsy is needed mainly in elderly age group. Anti-TB chemotherapy comprising rifampicin, isoniazid, pyrazinamide, and ethambutol is the mainstay of the treatment. Here we present a case of isolated tuberculous epididymitis in a 28 years old man after getting the written informed consent from him.

CASE REPORT

A 28 years old man presented with the swollen right scrotum with mild tenderness without any discharging sinus or scrotal ulceration for 45 days. There was no history of any respiratory symptoms, fever, anorexia, and significant weight loss. The patient was nonalcoholic and nonsmoker. Physical examination shows an afebrile male with a 6×3 cm uniformly enlarged smooth swelling with hard area on the upper surface in his right hemi-scrotum. His pulse rate was 80 beats/min, regular, respiratory rate, 20 beats/min, temperature, 97°F, and blood pressure, 120/80 mmHg. Systemic examination revealed no abnormality, Digital rectal studies shows a firm, non-tender prostate with normal urine analysis. His complete blood count was normal. Chest X-ray was clear. Ultrasound abdomen was normal and Ultrasound scrotum showed mildly bulky right epididymis with increased

vascularity, mildly thickened right spermatic cord with left testis normal suggestive of epididymitis (Figure 1).

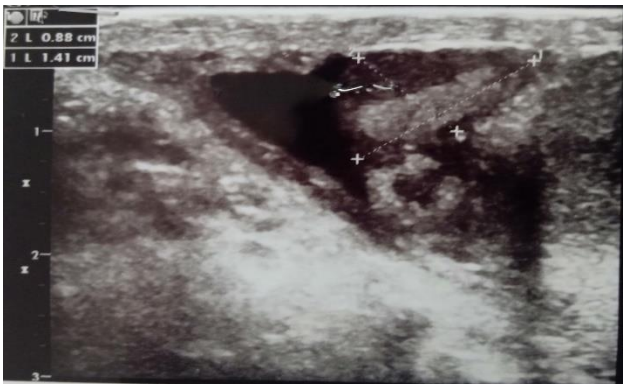

Figure 1: 28 years old man with isolated tubercular epididymitis. Longitudinal sonogram of right hemi scrotum shows mildly altered echotexture of the epididymis with an echogenic focus within measuring 8×3 mm.

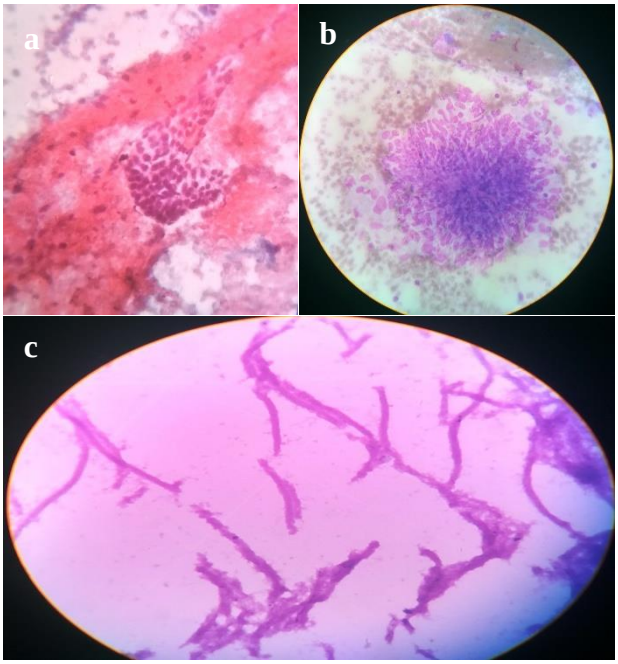

Figure 2: 28 years old man with isolated tubercular epididymitis. (a) Fine needle aspiration smear shows epididymal benign ductal epithelial cells, arranged in cohesive monolayer sheets mixed with inflammatory cells against hemorrhagic background (450X Papanicolaou stain), (b) fine needle aspiration smear shows clusters of epithelioid histiocytes (granuloma), mixed inflammatory cells (450X Leishman stain), and (c) fine needle aspiration smear shows caseous necrosis (rolled carpet appearance), (450X Leishman stain).

An early diagnosis of epididymitis was made and the patient receives a course of oral antibiotic treatment but after 15 days patient again presented with the similar complaints, for which we have advised fine needle aspiration cytology of right testicular swelling, which revealed a clusters of epithelioid histiocytes, benign epithelial cells arranged in sheets, polymorphous population of lymphoid cells against caseous necrotic background (Figure 2 A, B and C).

Hence, the diagnosis of tuberculous epididymitis was confirmed. As the patient had no past history of anti-tubercular chemotherapy, category I as per RNTCP guidelines anti-tubercular treatment regimen (thrice weekly regimen comprising rifampicin: 450 mg/day, isoniazid: 600 mg/day, pyrazinamide: 1500 mg/day, and ethambutol: 1200 mg/day for first 2 months, followed by rifampicin and isoniazid for next 4 months) was given. Complete resolution of right testicular swelling and pain was documented at the end of 6 months of treatment. On serial follow-up on outpatient basis, patient showed no evidence of recurrence.

DISCUSSION

Despite the development of anti-mycobacterial therapy and the rigorous use of known measures to combat tuberculosis, the prevalence and frequency of tuberculosis throughout the world remains high. The involvement of the testicle occurs less frequently than tuberculous epididymitis, and is usually the result of direct invasive epididymitis.[4] The epididymis is the most commonly affected organ primarily by a hematogenous mode of spread.[5] Epididymal tuberculosis is most commonly seen with tuberculosis of kidney or lower urinary tract.[6] Genitourinary tuberculosis is considered as rare but severe form of extra-pulmonary tuberculosis.[7] Tuberculosis of epididymis and vas results in formation of mass granuloma and luminal obstruction in acute phase of the disease, or by fibrosis and scar tissue after the development of the disease or post treatment.[7] Irritative voiding symptoms are often occurs in acute inflammation of the epididymis and testis are rarely seen in isolated epididymitis tuberculosis.[8,9] The present consensus recommends surgery if there are no signs of resolution within 2 months of medical management. ITE is usually curable with anti-TB medication but in patients who do not respond to medical treatment, surgical resection (epididymo-orchiectomy) is usually intended.

CONCLUSION

Isolated tubercular epididymitis is a rare entity. Clinical suspicion is very important to diagnose tubercular epididymitis. Fine needle aspiration cytology is a good investigation which will help in diagnosis and rule out rare malignant lesions, especially in young individual, as it is possible to confirm the diagnosis without testicular biopsy or orchidectomy.

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