A rare presentation of tuberculous prostatic abscess in young patient

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ABSTRACT

INTRODUCTION: Genitourinary tuberculosis contributes 15–20% of extra pulmonary tuberculosis. Prostatic tuberculosis is much less common than renal, vesico-semenal and epididymal TB. Predisposing factor include prior tubercular infection, immunocompromised status, previous BCG therapy. Nevertheless, isolated tuberculous prostatic abscess are uncommon especially in immunocompetent patient.

PRESENTATION OF CASE: We report a case of tuberculous prostatic abscess in young, healthy immunocompetent patient, from India, who has initial presentation of pyrexia of unknown origin. All his investigation and treatment were done in India. He was diagnosed with prostatic abscess, treated with TRUS guided aspiration and antituberculous drugs. But he did not respond to the treatment and later on presented as extraprostatic extension of abscess and rectal sinus, a rare complication. MRI revealed this finding. Sigmoidoscopy was done and in same sitting we drained the abscess through perineal route. ATT was continued and he responded to treatment.

DISCUSSION: Urogenital tuberculosis most frequently affects the kidneys. Ureter and bladder tuberculosis is secondary to descending infection. Prostate tuberculosis is usually asymptomatic and as an incidental prostatectomy finding. Prostatic abscess is rare but occur in AIDS patients with urogenital TB.

Prostatic tuberculous cavities or abscesses may discharge into the surrounding tissues, forming sinuses or fistulae to the perineum or rectum and are demonstrated best on MRI scans.

CONCLUSION: Tuberculous prostatic abscess although very uncommon in immunocompetent patient, we should have high index of suspicion in patients of PUO. Once diagnosed it should be treated with complete drainage of abscess and ATT with close follow up.

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1. Introduction

Tuberculosis is one of the major health problems in our country. Urogenital tuberculosis, responsible for 30–40% of all extrapulmonary cases, is second only to lymph node involvement [1].

Prostatic tuberculosis is much less common than renal, vesico-semenal and epididymal TB. Predisposing factor include prior tubercular infection, immunocompromised status, previous BCG therapy. Nevertheless, isolated tuberculous prostatic abscess are uncommon, especially in immunocompetent patient.

We report a case of unusual presentation of tuberculous prostatic abscess in young, healthy, immunocompetent patient.

2. Presentation of case

A 33 year old male from India, initially presented to physician with fever of unknown origin. On initial work up his total leucocyte count was raised and all blood investigations for infective etiology were negative. After multiple investigations, CT revealed prostatic abscess. TRUS was done to confirm finding which showed multiple hypoechoic area s/o abscesses, largest one of 19 × 11 mm in right lobe [Fig. 1]. Serum PSA was 8.68 ng/ml. Elisa for HIV was negative.

TRUS guided prostatic abscess drainage was done and pus sent for Gram staining, Z&N staining and fungal staining. AFB was found amid plenty of pus cells. His upper tract was normal in CT scan. The case was diagnosed as primary tuberculous prostatic abscess. Antituberculous drugs were started and patient was discharged on symptomatic improvement.

But he continued to have intermittent fever and developed storage urinary symptoms (frequency, urgency and dysuria). He presented to us after one month of above treatment.
On digital rectal examination prostate was enlarged and tender. TRUS showed enlarged prostate of 81 cc. Gland was heterogeneous with predominantly hypoechoic echotexture. Periprostatic extension of abscess was seen in both lobes at apex. On left side it was 38 × 28 mm and right side 24 × 13 mm.

MRI revealed extraprostatic collection on either side: on left side 57 × 74 mm collection extending into lateral aspect of rectum. Collection was supralevator in location. A long defect of 4.5–5 cm was seen in rectum at 10–11 o'clock position [Fig. 2].

He was taken up for surgery. Sigmoidoscopy finding showed defect in left wall of rectum with erythema and granulation around. In cystoscopy prostate was congested and bladder neck high. Abscess was drained through perineal route. There was large abscess cavity on left lateral wall, which was drained completely and packed. He required regular dressing and we continued with antituberculous drugs. He was followed up regularly with TRUS, which showed decrease in size of prostate and collapsed cavity.

He completed his antitubercular treatment, is symptom free and has gained weight.

3. Discussion

Urogenital tuberculosis most frequently affects the kidneys. Ureter and bladder tuberculosis is secondary to descending infection.

Prostatic tuberculosis is always secondary to pulmonary or renal TB. Spread from primary foci is by haematogenous route. Primary focus may not be detected in many of the extra pulmonary tuberculosis cases. It could be due to reactivation of a primary focus in persons with remote history of TB.

Tubercular involvement of prostate gland is known to present as granulomatous prostatitis [2]. Prostate tuberculosis is usually asymptomatic and as an incidental prostatectomy finding. Prostatic abscess is rare but occur in AIDS patients with urogenital TB.

Despite the prevalence of urogenital tuberculosis in the non-industrialised world, rectoprostatic fistula caused by tuberculosis is extremely rare. Kumar et al. reported three cases of spontaneous rectoprostatic fistula who had a past history of pulmonary tuberculosis [3].

CT scan, MRI scan and transrectal ultrasounds (TRUS) are the imaging techniques used to diagnose the disease. The treatment of prostatic abscess is drainage using transrectal and transperineal route under TRUS guidance, transurethral incision of prostate, transurethral resection of prostate or open perineal drainage, followed by short course of chemotherapy.

Prostatic tuberculous cavities or abscesses may discharge into the surrounding tissues, forming sinuses or fistulae to the perineum or rectum and are demonstrated best on MRI scans [4].

Tuberculous prostatic abscess in a young healthy male presenting as rectal sinus is extremely uncommon.

4. Conclusion

Tuberculous prostatic abscess may present as pyrexia of unknown origin in healthy young males with no respiratory or immunodeficiency disorder.

Once the diagnosis is confirmed, TRUS guided aspiration is the primary treatment for drainage of abscess followed by chemotherapy. If two attempts of TRUS aspiration fails, these patients benefit from transurethral drainage [5].

Inadequate drainage could lead to uncommon complication like rectal sinus or fistulae.

Conflict of interest

Authors have no conflict of interest to declare.

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Author contribution

All authors have made substantial contributions in the diagnosis and treatment of present case. All authors approved the final manuscript.

Consent

Written informed consent was obtained from patient for publication of this case report. A copy of written consent is available for review by the Editor-in-chief of this journal on request.

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