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CASE REPORT

A Rare Case of Tuberculous Prostatitis

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ABSTRACT

Tuberculous prostatitis is an uncommon form of tuberculosis infection. It is commonly seen in immunocompromised patients and in those of middle or advanced age. The diagnosis is often not straight forward due to the nature of its presentation. We report a case of tuberculous prostatitis in a young, healthy and immunocompetent patient, who initially presented with respiratory features, followed by episodes of seizures and testicular swelling. He was finally diagnosed with tuberculous prostatitis after prostatic biopsy. This case illustrates that in a high TB prevalence environment, when symptoms warrant, there should be a high clinical suspicion coupled with a thorough approach in order to arrive at a correct diagnosis of TB prostatitis.

KEYWORDS: Tuberculosis, prostatitis, mycobacterium

INTRODUCTION

Tuberculosis (TB) continues to be an important disease both globally and in Malaysia. About 10% of TB cases diagnosed at tertiary level chest clinic in Malaysia are classified as extra-pulmonary TB. The genitourinary system is a very uncommon region to be affected in extra-pulmonary tuberculosis. In this region, the organs involved are usually kidneys, ureters, bladder or genital organs [1]. Tuberculosis of the prostate is very rare and has mainly been described in immunocompromised or elderly patients [2]. We describe a case of a young immunocompetent man who initially presented with respiratory features followed by seizures and testicular swelling, and finally was diagnosed with TB prostatitis.

CASE PRESENTATION

A 44-year-old Malay gentleman was referred to our chest clinic by general practitioner for further investigation following an incidental finding of a right-sided pleural effusion. He had a background history of well-controlled diabetes mellitus and hypertension. At presentation, he was asymptomatic. On further questioning, he denied any cough, shortness of breath, fever, loss of appetite or loss of weight. He had no history of contact with TB patients. He denied any history of miliary TB in the past. The physical examination revealed decreased air entry and dullness to percussion over the right lower lung field. The initial TB work up by the referring health clinic were negative, with three negative serial sputum for acid fast bacilli (AFB), ESR of 5 mm/hour and Mantoux test of 4 mm. The total white cell counts and C-reactive proteins were normal.

The chest radiograph revealed a right-sided pleural effusion. Contrasted Tomography (CT) scan of the thorax, showed minimal right pleural effusion and diffuse pleural thickening associated with sub-segmental atelectasis and consolidation in the right lower lobe. A bronchoscopy performed revealed normal findings, and the samples of the bronchoalveolar lavage were negative for TB or malignancy. Therefore, he was

treated as resolving pneumonia with parapneumonic effusion.

Unfortunately, a few weeks later, he was readmitted with recurrent seizures and left testicular swelling. Patient also complained of increased urinary frequency, hesitancy and urgency. He denied any haemospermia. The scrotal examination revealed a palpable, non-tender, hard mass over the left testis measuring 1 × 2 × 1 cm. The neurological examination was unremarkable.

A contrast-enhanced CT scan of the head was performed to investigate the cause of seizures which demonstrated a non-specific small rim-enhancing lesion in the right parietal lobe. The analysis of the cerebrospinal fluid obtained from lumbar puncture was within normal limits. In view of the testicular swelling, he underwent ultrasound examination of the testes, which showed a heterogeneous left epididymal lesion (Figure 1). MRI of the pelvis was also performed and showed an additional lesion within the right side of the prostate (Figure 2). This lesion demonstrated intermediate signal in T2-Weighted sequence, minimal enhancement on post gadolinium T1- Weighted sequence and diffusion restriction on Diffusion-Weighted sequence. His HIV status was negative, HbA1C: 5.6 and prostate-specific antigen (PSA) level was elevated. Transrectal ultrasound of the prostate (TRUS)-guided biopsy revealed the presence of acid fast bacilli on Ziehl-Nelsen stain, and granulomatous features on histopathological examination (HPE) further confirmed the diagnosis of tuberculous prostatitis. He was therefore started on Akurit 4 including supplemental Pyridoxine. The brain lesion and pleural effusion were deemed most likely caused by the same underlying infective process. Upon follow up, the testicular swelling resolved and he remained well.

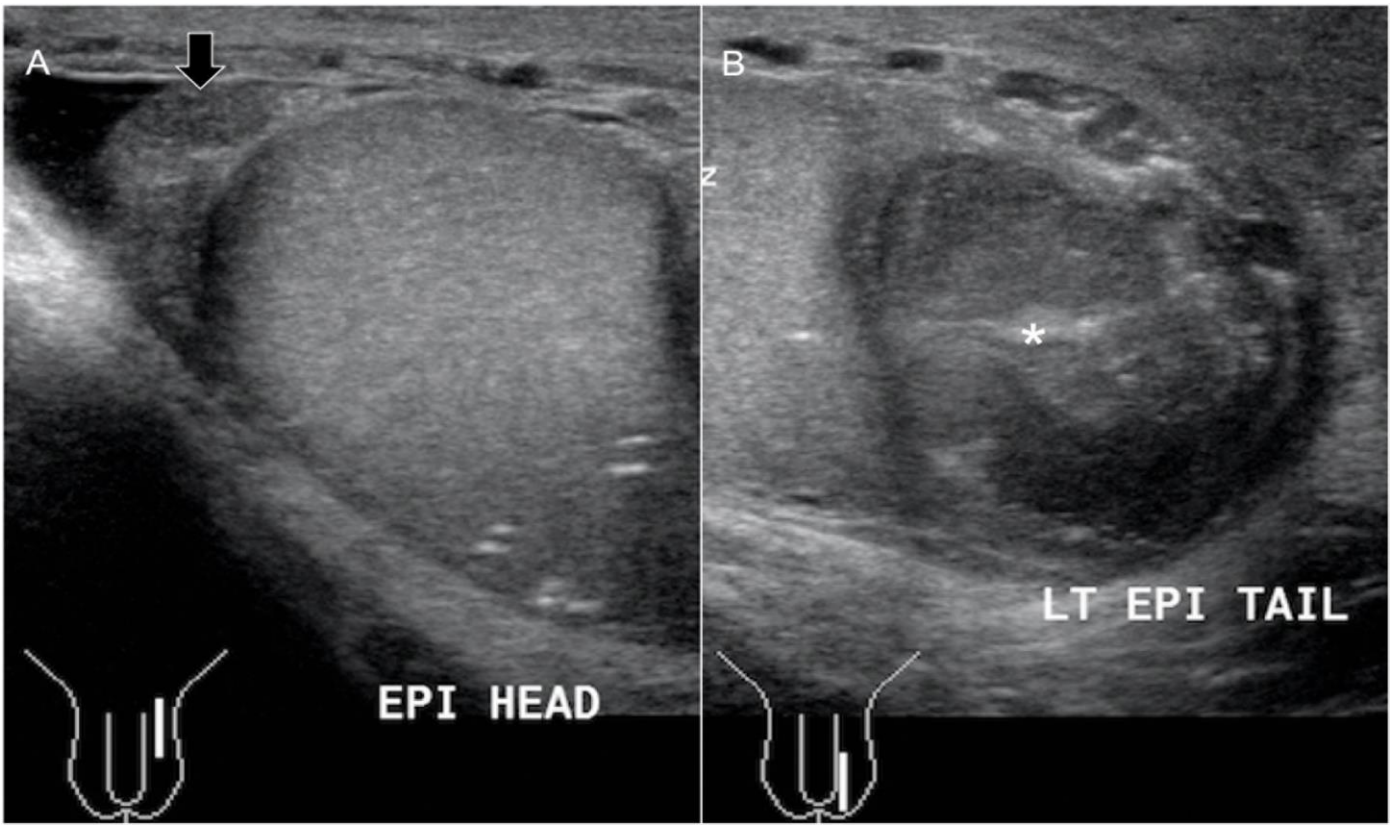

Figure 1 Ultrasound images (A & B) of the left scrotum. The sagittal view of the left scrotum shows a well-defined heterogeneous hypoechoic lesion (*) arising from the tail of the left epididymis. Note is made of the normal appearance of the head of the left epididymis (black arrow)

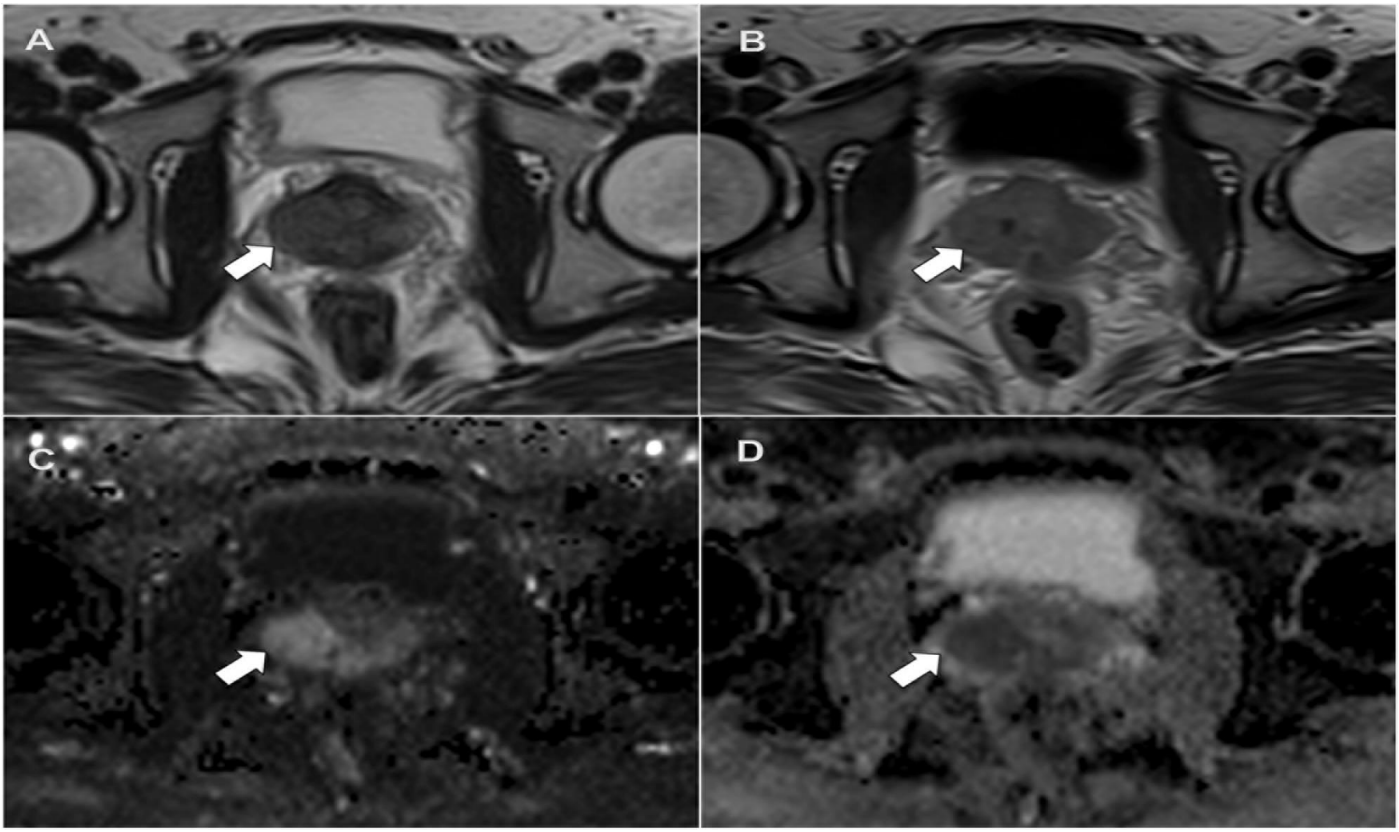

Figure 2 Axial MRI images of the pelvis demonstrating a lesion within the right side of the prostate (white arrow). This lesion shows intermediate signal in T2-Weighted sequence (A), minimal enhancement on post gadolinium T1- Weighted sequence (B) and diffusion restriction on Diffusion-Weighted sequence (C & D)

DISCUSSION

Tuberculous prostatitis is a rare benign inflammatory disease of the prostate that rarely presents clinically. A tuberculosis focus in the genitourinary system has been found in 75-90% of the cases with prostate involvement, and only 3-12% of systemic tuberculosis was reported to have prostate involvement [2]. Imaging studies may help to identify the presence of concurrent tuberculosis of other organs. This patient is having disseminated TB with lung primary, disseminated to brain and genitourinary system. The disease spread hematogenously and sporadically to the left epididymis and also to the right prostate. There might be other places around the genitourinary system which were infected as well, however, they could be very small, hence not detected via MRI and USG.

About 50-70% of immunocompromised patients, particularly with HIV infection were reported to have extra-pulmonary involvement. In our patient, HIV testing was negative and his immune system could be considered as normal as his diabetic control was good with HbA1C of 5.6. The clinical findings of prostatic tuberculosis are often non-specific, and most commonly presented with symptoms of lower urinary tract obstruction. In our patient, his main symptom was the testicular swelling which had brought him to seek medical professional advice. In the future, it is suggested that the treating doctor need to ask a very thorough history involving other system as well, especially if the provisional diagnosis is tuberculosis. Even though the patient was referred to a Respiratory Clinic, other systems such as genitourinary system need to be examined thoroughly.

In conclusion, tuberculosis can manifest in many forms, and a thorough history and physical examination are essential, especially in detecting rare forms of extra-pulmonary tuberculosis. Prostatic tuberculosis is generally seen in immunocompromised patients and in those of middle or advanced age. However when symptoms point to a pathology of the genitourinary system, in a country with high TB prevalence, TB prostatitis should be kept in mind even in immunocompetent young adults.

Conflict of Interest

Authors declare none.

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