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Case Report

Tubercular Prostatitis: A rare case of Genitourinary Tuberculosis.

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Abstract

Genitourinary tuberculosis is the second most common type of extra-pulmonary tuberculosis after tubercular lymphadenitis. Tuberculosis of the prostate is a relatively rare condition and most cases are diagnosed on histology following prostatectomy or prostatic biopsy. Probably several cases of tubercular prostatitis remain undiagnosed. Therefore it requires a high index of suspicion. Here we report a rare case of tubercular prostatitis in a 49 years old man who presented with features of lower urinary tract symptoms.

Key Words:

Genitourinary, Prostate, Tuberculosis

Introduction

Tuberculosis is a contagious disease known from ancient times. Tuberculosis of the genitourinary tract and particularly of the prostate was first described by Willbolz in 1937 who demonstrated that it was a local manifestation of a systematic disease [1]. The kidneys, ureters, urinary bladder and the epididymis & testis are most commonly affected by genitourinary tuberculosis. This article reports a case that was found histologically to have tubercular prostatitis following transurethral prostatectomy.

Case presentation

A 49 years old gentleman presented to us with features of dysuria, obstructive urinary flow, nocturnal frequency, swelling of the left testis and low grade fever typically evening rise for 6 weeks. Physical examination findings were otherwise normal except asymmetrically enlarged prostate of about 40 grams on digital rectal examination.

His CBC was within normal limits except the ESR was 46 mm in first hour. Routine

urine examination showed plenty of pus cells but culture yielded no growth of organisms. Ultrasonogram revealed a moderately enlarged prostate of about 52 grams with calcifications in the prostatic parenchyma, mildly thickened bladder wall (4.5 mm) with 125 ml of postvoid residual urine and right sided moderate pleural effusion. There was no ascites or abdominal lymphadenopathy but left epididymis was swollen & heterogenous in echotexture suggestive of chronic epididymitis. His serum creatinine was 1.4 mg/dl, PSA level was 28.6 ng/ml which dropped to 11.9 ng/ml after a course of antibiotics. Uroflowmetry was done and Qmax was 8 ml/sec. Retrograde and micturating urethrogram revealed a small segmental stricture at the proximal membranous urethra. Chest Xray showed mild pleural thickening with blunt costophrenic angle on the right side.

Depending upon his clinical presentation and investigations he was diagnosed as a case of obstructive variety of LUTS due to

stricture urethra with recurrent UTI. He was planned for urethroscopy and to proceed accordingly. Urethroscopy revealed that there was no stricture but prostate was enlarged. So TURP was performed and the prostatic chips were sent for histopathological examination.

Histopathology showed granulomas composed of epithelioid cells, Langhans' giant cells and caseation necrosis with the diagnosis of granulomatous inflammation consistent with tuberculosis. During discharge he was advised to take antitubercular therapy and to follow up after 6 weeks.

Discussion

Genitourinary tuberculosis represents 10-14% of all locations of extra-pulmonary tuberculosis [2]. Tuberculosis of the prostate is a relatively rare condition. Tuberculosis of the prostate has mainly been described in immune-compromised patients. However, it can exceptionally be found as an isolated lesion in immune-competent patients. Tuberculosis involving the prostate gland, apart from being rare, can also mimic carcinoma of the prostate as well as chronic prostatitis and therefore requires a high index of suspicion [3]. In many cases, the diagnosis of tuberculous prostatitis is made incidentally after transurethral resection. Huang et al. in Taiwan conducted a study on 10 patients over a period of 10 years, who all presented with digital rectal examination findings suggestive of prostate cancer, but needle biopsy of the prostate revealed tuberculosis [4]. Kostakopoulos et al. also presented 5 cases of TB of the prostate, all of which were incidental histologic findings after transurethral resection of the prostate [5].

Primarily prostatic tubercular lesions are very rare [6]. The spread of the disease in the prostate is usually haematogenous [7]. There is no evidence to support the view that it may develop from direct inoculation

through contaminated urine [8]. Initially, patients are usually asymptomatic or present with non-specific irritative voiding symptoms or hemospermia. Hemospermia gives a strong suspicion of tubercular infection and its sequelae in the prostate [9]. Extension of the disease outside the prostate leads to the involvement of the epididymis and advanced cases may present as a perianal and scrotal abscesses [10].

On histology, the macroscopic appearance depends on two opposing processes: one of destruction and caseation, another defense by limiting the extension with fibrosis. It is this latter process that leads to obstructive phenomena. The histological appearance is a typical granuloma with caseous necrosis and giant cells. Prostatic lesions first take the appearance of yellowish streaks arranged in a "wheel spokes" as in figure 1. Thereafter, plates are formed with caseous softening which leads to a true secondary prostatic abscess. Natural evolution can lead to the appearance of perineal fistulas [11].

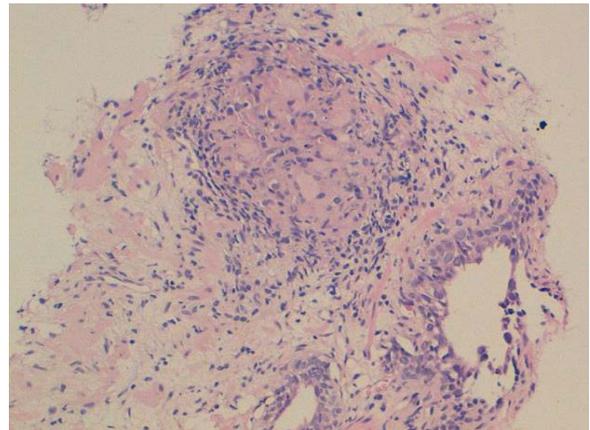


Figure 1: Histology of granulomatous infection with caseous necrosis and giant cells in prostatic parenchyma.

Prostatic tuberculosis may cause transient elevation of PSA levels that decreases with resolution of inflammation [12]. In our case, serum PSA came down to normal

range after 6 weeks of anti-tubercular therapy.

Treatment consists of administration of antitubercular drugs (isoniazid, rifampicin, pyrazinamide and ethambutol). Chemotherapy alone has been found effective and surgical treatment (endoscopic resection) is reserved for those with lower urinary tract obstruction.

Conclusion

In this case, the primary diagnosis was stricture urethra being misguided by RGU & MCU reports. Carcinoma prostate was other diagnosis as serum PSA level was high. As tubercular prostatitis is an uncommon disease, pleural effusion and raised ESR was ignored, we thought this medical problem can be treated after correction of his urological problem. However, it should be kept in mind that though tubercular prostatitis is uncommon, it can present to us in our regular clinical practice.

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