

Case Study

A case report on primary tuberculosis of glans penis-a rare presentation

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Abstract

Penile tuberculosis is the rarest form of genitourinary tuberculosis even in developing countries. It is either primary or secondary. A 23 years old married male with a single painful penile papule measuring 0.8 X 0.8 cm lasted for 8 months. Pathologic study of the biopsy revealed granuloma with epithelioid cell and giant cell with caseous necrosis. After the anti-TB regimen, the patient was cured.

Introduction

Tuberculosis is a bacterial infectious disease caused by *Mycobacterium tuberculosis* [1, 2]. This bacteria is mostly transmitted through the respiratory route. On clinical manifestation, pulmonary tuberculosis makes up 70% of cases, and extra-pulmonary tuberculosis 10-30% [3, 4]. Glans penis tuberculosis is a rare case that makes less than 1% of all genital tuberculosis that may occur primary that acquired during circumcision, infected fomites, and sexual intercourse or secondary to pulmonary TB [5, 6, 7, 8].

Case Report

A 23-year-old married male medical student presented to the pathology department of Kabul University of medical science with a painful penile ulcer measuring 0.8 X 0.8 cm (Figure 1-A), lasting for 8 months. He neither had a history of cough, sputum, and weight loss. The patient was tested for sexually transmitted diseases, that were negative. Complete blood count, serum glucose, blood urea nitrogen, creatinine, abdominal ultrasound, and Chest X-ray were normal. No uropathogen was isolated from urine culture. Ziehl-Neelsen's stain of smear from the pus exuding from the ulcer was negative. Tuberculin Skin test was negative. Erythrocyte sedimentation rate was elevated to 65 mm/h. The patient was treated with anti-fungal, anti-bacterial such as gentamicin and antiviral (acyclovir), but the resolution was

not satisfactory. A biopsy sample was taken for refusal of carcinoma. Histopathology study of the slide showed epithelioid cells and Langhans giant cells, multiple granulomas, caseous necrosis, and infiltration of mononuclear inflammatory cells (Figure 1-B), which indicates that the patient is suffering from penile tuberculosis. subsequently, a directly observed treatment short-course anti-tuberculosis treatment regimen for 6 months was started; for the first 2 months; isoniazid, rifampicin, pyrazinamide and ethambutol followed by isoniazid rifampicin for the next 4 months, that resulted a complete resolution of the lesion.

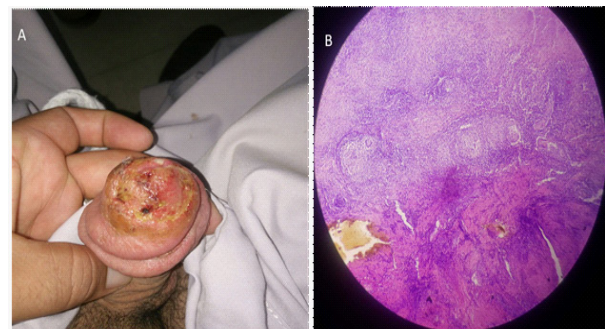


Figure 1A: Exudative lesion over glans penis; **B:** Pathologic slide (40x), granuloma with epithelioid, giant cells, and caseous necrosis.

Discussion

Tuberculosis is one of the top ten causes of death worldwide [9]. This infectious disease is one of the leading causes of disease in developing countries. Glans penis tuberculosis is reported in less than one percent of worldwide tuberculosis that may occur primary and secondary [10]. Tuberculosis of the glans penis is mostly acquired from a woman with active genital tuberculosis or is rarely transmitted through contaminated clothing and devices [11]. Tuberculosis of the penis is mostly seen in the penis glans skin or Cavernous bodies [12]. It would be difficult to differentiate between tuberculosis lesions and carcinoma from a gross's point of view, In such cases where the patient has a persistent

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lesion and does not respond to treatment, histopathological examination is required to rule out the final diagnosis.

Conclusion

Glans penis Tuberculosis is a rare form of Genitourinary tuberculosis that mimics malignancy and a histopathologic examination is an important tool for final diagnosis. In an endemic country like Afghanistan, non-healing ulcer over the glans penis make the patient suspicious for TB and should be tested.

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