

Primary Tuberculosis of Glans Penis: a Case Report

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Introduction

An extremely rare form of genitourinary tract tuberculosis (TB) is TB of glans, being reported in 139 cases up to 1971.⁽¹⁻⁴⁾ Penile glans may be affected through different mechanisms^(1,2,4,5): primary, as an ulcerative lesion of glans; secondary, which is due to TB of other parts in urinary tract system-usually extended through urethra; and finally, hematogenous. Long ago, circumcision was a risk factor when mycobacterium could enter the wounded glans from affected circumcision operators.^(3,6) At present, TB of glans in adults is usually a primary or secondary form. Primary glans TB can be acquired by either intercourse with a patient suffering from genital TB, or contact with contaminated fabric. The secondary form is the subsequent complication of lung tuberculosis or other organs involvement.⁽³⁾ We report a case of primary glans TB, which is, to our best knowledge, the first report in Iran.

Case Report

A 48-year-old blind man was referred with an ulcerative burgeon (granulated) lesion on his glans. Physical examination revealed the involvement of the entire glans tissue (fig. 1), but no other sign or symptom in the genitourinary system. The patient had received different antibiotic therapies in the last two years, without a desirable response. According to a positive culture for staphylococcus aureus, the patient was started on gentamicin and cephalexin, but no improvement yielded. Direct examination of the lesion discharge was negative for mycobacterium tuberculosis. Also, VDRL test was negative, but a posi-



FIG. 1. Involvement of the entire glans by an ulcerative lesion

tive tuberculin test was reported. Eventually, since the lesion had a tumor mimicking feature, frozen section biopsy was performed and the primary report showed tuberculosis, confirmed by repeated biopsies (fig. 2). Further assessments for TB with intravenous pyelography and chest x-ray were normal.

Subsequently, anti-TB treatment was initiated, using pyrazinamide, 2mg/kg/day, isoniazid, 300 mg/day, rifampin, 450 mg/day, for two months, and isoniazid, 500 mg, 3 times per week, rifampin, 900 mg, 3 times per week, for another additional two months.

Complete improvement was achieved following the treatment and reconstructive surgery was done on the glans. Also, the spouse of the patient was evaluated and genital tuberculosis was detected by physical examination and paraclinical

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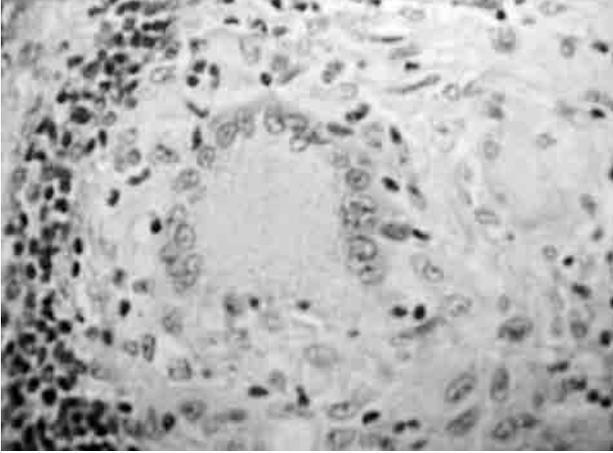


FIG. 2. Multiple granulomas in the epithelium of glans mucosa, containing epithelioid and giant granulomatous cells. Caseous necrosis is seen in the center of one of the granulomas. Hyperplasia of superficial epithelium has occurred. No malignancy was detected.

and imaging assessments. She was referred to a gynecologist and treated successfully.

Discussion

Recently, the prevalence of TB in developing countries has had a declining trend⁽⁷⁾ and multiple-organ involvement with TB is hardly seen.^(4,8) However, Afghanistan wars in the last decade has led to immigration of the Afghans to Iran, resulted in re-development of TB in the country and subsequently various forms of TB were found again. Involvement of glans of penis was first described by Hellerstrom and later by Bafverstedt and Hagemen.⁽⁹⁾ The prevalence is higher in Japan and has been termed as penile tuberculosis.⁽¹⁰⁾ TB of glans presents as a superficial lesion,^(6,10) which is difficult to differentiate from malignant tumors.^(3,7,10) The lesion can be extensive, with the involvement of urethra and corpus cavernosum.⁽³⁾ Rarely it may present as a hardened nodule or even cavernositis accompanied with ulcer.⁽³⁾ Biopsy must be done to confirm diagnosis, in which tuberculide granuloma with giant cells and caseous foci can be seen.^(3,7,11) To determine whether a TB of glans is a primary or a secondary disease, intravenous pyelography and chest x-ray must be taken.^(3,8,12,13) TB of glans usually responds to short-term anti-tuberculosis triple-drug chemotherapy.^(4,11,14,15)

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