Short Communication

Tuberculosis of the glans penis mimicking as carcinoma

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ARTICLE INFO
Article history:
Received 3 April 2016
Accepted 20 April 2016
Available online 10 May 2016

Keywords:
Case report
Penile cancer
Penile lupus vulgaris
Penile tuberculosis

ABSTRACT
Penile tuberculosis (TB) is an uncommon variety of genitourinary TB. It is either primary (via local spread) or secondary (spread of infection from other organs). We encountered a case of rapidly growing penile ulceration, resembling carcinoma. Biopsy revealed the classic picture of TB, which responded well to antitubercular treatment.

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Case report
A 65-year-old man from a rural area in Kolkata presented to us with complaints of ulceration over the glans penis for 3 months. It initially began as a small patchy lesion, which later increased in size and ulcerated. There was some associated discharge and pain. He neither had a history of significant lower urinary tract symptoms nor hematuria. The patient was also not a known diabetic or hypertensive and had no past exposure to tuberculosis (TB).

The patient was moderately built and nourished. On examination, a part of the glans penis was destroyed and a cauliflower-shaped irregular ulcer partially covered with white slough was present over the front and ventral aspect of the glans approaching the distal shaft of the penis (Fig. 1). The base of ulcer was pink and edges were rolled out. The urethral opening was intact. Slight tenderness could be elicited over the ulcer. Multiple discrete mobile nontender lymph nodes were found over the bilateral inguinal region. Cervical and axillary nodes were not palpable. Bilateral renal angles were nontender and external genitalia examination was unremarkable. Systemic examination was normal.

A provisional diagnosis of carcinoma of the penis was made and wedge biopsy was taken. Histopathology revealed lymphoplasmacytic infiltration of subepithelial fibrocollagenous tissue along with the presence of epithelioid granuloma with caseation, suggesting a mycobacterial infection (Fig. 2). Mantoux test was 17 mm. Fine-needle aspiration cytology from inguinal lymph nodes showed reactive hyperplasia. Abdominal ultrasound, chest X-ray, and sputum microscopy...
results were normal. Polymerase chain reaction (PCR) from tissue specimen confirmed the presence of TB. Enzyme-linked immunosorbent assay for human immunodeficiency virus (HIV) was negative. His female partner was not available for evaluation.

The patient was put on antitubercular therapy under Category 1, with isoniazid–rifampin–pyrazinamide–ethambutol (HRZE) for 2 months followed by isoniazid–rifampin (HR) for the next 4 months. After 4 months of treatment, a significant healing was noted in the ulcer and after 6 months it healed completely.

Discussion

Genitourinary TB (GUTB) is the most common form of extrapulmonary TB, but penile affection is one of the least common GUTB cases (<1%) [1]. In a more common secondary form, it occurs due to systemic spread of infection from pulmonary or extrapulmonary sources. In the primary form, local spread of bacilli from clothing, ejaculation, endometrial secretions, circumcision, and intravesical bacillus Calmette–Guérin has been reported [2]. In our case, no primary affection of TB could be found elsewhere in the body and the patients female partner could not be evaluated. The exact incidence of penile TB is not known. Pathogenesis appears to be the heightened sensitivity to the tubercular antigen in an immunocompetent state, which on exposure leads to the characteristic granulomatous inflammatory reaction [3]. Patients usually present with papule or nodule over the glans, which gradually ulcerates. Disease often remains in the subcutaneous tissue, although occasionally reports have indicated urethral and cavernosal involvement [4].

Evaluation of penile ulceration warrants ruling out malignancy, granulomatous syphilitic ulcer, herpetic ulcer, HIV, apart from TB [5]. On microscopy, discharge from an ulcer may show bacilli on Ziehl–Neelsen staining, and so a culture test will aid in diagnosis. However, isolation is not possible in every case. Biopsy from a penile lesion usually establishes the diagnosis and reveals caseating granuloma with abundant lymphocytes, as was found in our case [6]. PCR is another method of diagnosis and is both reliable and accurate. A search for the primary lesion should be done with chest X-ray, ultrasound abdomen, and scrotum. Patient partners must be evaluated for TB [7]. Treatment includes the four-drug therapy, HRZE, under Category 1 for 6 months. Although resistance is rare, sensitivity test to the drugs is worthwhile. Lesions respond well, with healing seen by 4–6 months [8]. No recurrent form so far has been reported.

In conclusion, Penile TB is a rare form of GUTB. Ulceration may mimic malignancy and biopsy often establishes the diagnosis. Conservative treatment with an antitubercular regime is the mainstay to resolve the disease.

Conflicts of interest

None declared.

REFERENCES