CASE REPORT

Penile tuberculosis masquerading as carcinoma penis

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Abstract

Genital Tuberculosis (TB) is the second most common site of TB. However, TB of the glans penis is an extremely rare presentation. We report the case of a 44-year-old male who presented with a non-healing ulcerative growth over the glans penis persisting for six months. The lesion was initially clinically diagnosed as carcinoma penis. However, histopathological examination revealed penile TB. This case highlights the importance of considering penile TB in the differential diagnosis of genital ulcers. Accurate diagnosis through biopsy and tissue culture is crucial to differentiate it from carcinoma and to guide appropriate treatment.

Keywords: Penile TB, Ulcerative growth, Genital ulcers, Carcinoma penis

Introduction

Tuberculosis (TB) of the penis is an uncommon presentation and poses significant diagnostic challenges due to its rarity [1-4]. Penile TB can clinically mimic conditions such as carcinoma of the penis, granulomatous penile ulcers, and HIV-related infections, making accurate diagnosis difficult [5]. In this report, we present the case of a 44-year-old male who presented with a non-healing ulcerative growth over the glans penis. Initially suspected to be carcinoma penis based on clinical evaluation, histopathological examination of a biopsy revealed the presence of TB. This case underscores the need to consider TB in the differential diagnosis of genital ulcers to ensure appropriate management and treatment.

Case Report

A 44-year-old male patient presented with complaint of non-healing ulcerative growth over his glans penis for six months. There was no history of trauma, fever, cough or other constitutional symptoms or history of tubercular contact. Patient had history of surgery of filarial scrotum and ram's horn penis 10 years back. Patient had received conservative treatment in the form of various antibiotics and antifungal agents by local doctors but there was no improvement. There was no inguinal lymphadenopathy clinically or on ultra-sound. Scrap cytology of the lesion was suggestive of squamous cell carcinoma of the penis. To confirm the diagnosis, incision biopsy of the lesion was done which showed epithelium cell granu-lomas with presence of many Langhan's type of giant cells in the background of lymphocytes and macrophages with focal areas of necrosis sugges-tive of TB (Figure 1). Tissue culture also showed tubercle bacilli. Chest x-ray was normal. Patient was started on Anti Tubercular Therapy (ATT) in form of 2 months of intensive phase comprising of

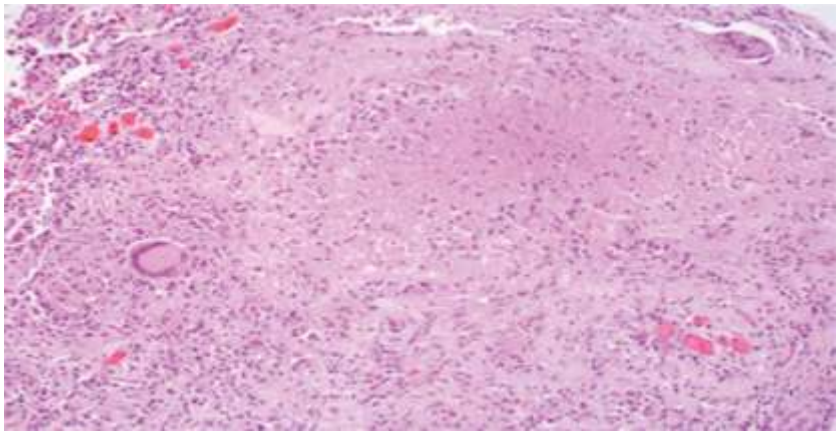

Figure 1: Histopathology of the lesion showing epithelial cell granulomas with presence of many Langhan's type of giant cells in the background of lymphocytes and macrophages with focal areas of necrosis suggestive of tuberculosis

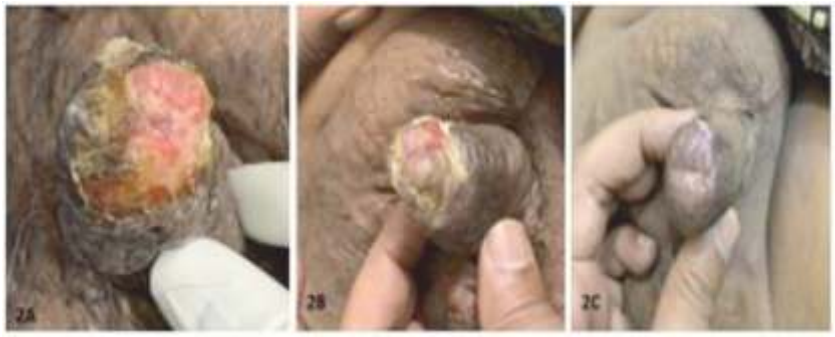

Figure 2A: Shows primary penile ulcer
Figure 2B: Shows healing ulcer post 2 months of ATT therapy
Figure 2C: Shows healed ulcer after 6 months of ATT therapy

isoniazid, rifampicin, pyrazinamide and ethambutol and 4 months of continuation phase comprising of isoniazid and rifampicin. It was seen that within four weeks, there was significant improvement and healing of the ulcer. Figure 2 shows pre and post ATT lesion over glans penis. Full 6 months course of ATT was given to the patient leading to complete healing of the ulcer. So, it was concluded to be a case of primary glans penis TB.

Discussion

TB is a major cause of morbidity in developing countries [6]. Epididymis (42%) followed by seminal vesicle (23%), prostate (21%), testis (15%) and vas deferens (12%) are the common sites of involvement in genital TB. Less than 1% of genital TB cases globally are reported to have TB of the glans penis, an incredibly rare kind of the disease [7]. Penile TB in adults is either primary or secondary. Primary penile TB is usually acquired either through intercourse with female partners with active genital TB or infected patient's own ejaculates or through fomite spread by contact with infected cloths. Penile TB is a rare manifestation of the disease, with primary cases often linked to sexual transmission or contact with infected materials.

Secondary penile TB can occur as a result of systemic spread from other sites in the body. Symptoms of penile TB may include pain, ulceration, discharge, and swelling. Diagnosis is typically confirmed through biopsy and culture of the affected tissue. Few cases of penile TB occurring following intravesical immunotherapy with Bacillus Calmette-Guerin are also reported [8]. The secondary form arises due to the subsequent complication of lung TB or TB of other parts of the urogenital tract. In most cases, the lesion takes the form of an ulcer, which is difficult to differentiate from malignant tumors. The lesion can be extensive, involve the urethra and corpus cavernosum. Since young adults are affected, their female partner should always be evaluated for genital TB [9].

Conclusion

TB of the glans penis is an extremely rare presentation. This case is reported to increase awareness of this curable condition. Though incidence is rare, TB of glans penis must be excluded if any patient presents with unhealthy, non-healing ulcer over penis. Early diagnosis and prompt treatment are crucial in managing TB of the glans penis to prevent complications and ensure a favorable outcome. Collaboration between urologists, dermatologists, and infectious disease specialists is essential for accurate diagnosis and effective management of this rare condition.

Histopathological examination by incision biopsy is essential to differentiate it from carcinoma penis. Antitubercular drugs are the mainstay of treatment.

References

1. Elkhachine Y, Sinaa M, Sakkah A, Hallab I, Ouarssani A, Jakar A, *et al*. Tuberculose du gland [Tuberculosis of the glans penis]. *Ann Dermatol Venereol* 2020;147(10): 672-675.
2. Deb S, Mukherjee S, Seth J, Samanta AB. Nodulo-ulcerative TB of the glans penis-A case report and a discussion on nomenclature of genital TB. *Indian J Dermatol* 2015;60(5):506-508.
3. Stockamp NW, Paul S, Sharma S, Libke RD, Boswell JS, Nassar NN. Cutaneous tuberculosis of the penis in an HIV-infected adult. *Int J STD AIDS* 2013;24(1):57-58.
4. Ramesh V, Ramam M, Pahwa P, Malhotra S. The clinical presentations of penile tuberculosis. *Int J Dermatol* 2013; 52(6):759-761.
5. Javalgi AP, Ankad B, Dombale VD. Cutaneous tuberculosis – A profile of cases: 3 years cross-sectional study. *J Krishna Inst Med Sci Univ* 2014; 3(1): 18-23.
6. Singh V, Sinha RJ, Sankhwar SN, Singh AK. Isolated penile tuberculosis mimicking penile malignancy: A case report. *Indian J Urol* 2011;27(3):430-431.
7. Arora VK, Chopra R. Genitourinary tuberculosis: Current status and management. *Indian J Urol* 2008; 24(3):362-367.
8. Kulchavenya E. Best practice in the diagnosis and management of urogenital tuberculosis. *Ther Adv Urol* 2013;5(3):143-151.
9. Lin TP, Tsai TH, Chang CC, Lin YL, Chen MT. Tuberculosis of the glans penis: A rare presentation of genitourinary TB. *Urol Int* 2009;83(4):481-483.
10. Abbara A, Chitty S, Roe JK, Ghani R, Collin SM, Kon OM. Drug-resistant tuberculosis in the UK: A study of Mycobacterium tuberculosis strain characteristics and treatment outcomes. *Thorax* 2017;72(8):764-771

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