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TUBERCULOSIS OF PENIS MIMICKING AN ADVANCED PENILE CANCER – A CASE REPORT

Urology

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ABSTRACT

Tuberculosis of penis is a very rare clinical entity. It is usually secondary to infection of other genitourinary tuberculosis but primary infection can occur. There are isolated reports of its presentation as a subcutaneous nodule with or without superficial ulcers and can be interpreted as advanced penile cancer. A 57years circumcised married man presented with history of painless ulcer in the glans penis for one year. On examination, there was an ulcerated growth of size 3 c.m. x 2 c.m. occupying the entire glans. Wedge biopsy was done but report was inconclusive. Repeat biopsy was done which was suggestive of granulomatous lesion. The patient was subjected to partial penectomy. Histopathology of the lesion was suggestive of tubercular granuloma. Patient was subjected for antitubercular (ATT) therapy. Patient was followed up at 2 months. Till date the patient is on regular follow up and there is no sign of recurrence.

KEYWORDS

Tuberculosis,Ulcer,Partial penectomy,ATT

1. Introduction

Genitourinary tuberculosis represents 2-10% of extrapulmonary tuberculosis in the developed countries. In developing countries its incidence is 15-20% (1).Among the genitourinary tuberculosis, penile tuberculosis is extremely rare. Its presentation may vary from a small nodule to ulceroproliferative growth. We report here a case of primary tuberculosis in the glans which is mimicked a carcinoma of penis in a 57 years old circumcised male.

2. Case report

A 57 years circumcised married man presented with history of a slow growing painless ulcer with swelling of the glans penis for one year. Initially, there was a small ulcer on the dorsal aspect of glans penis which gradually increasing in size, involving and destroying the entire glans. He did not have any problem with micturition. There was no history of diabetes or tuberculosis.

On examination, there was an ulcerated growth of size 3 c.m. x 2 c.m. partially covered by slough with nodular surface occupying the whole of the glans, (Figure.1A). It was non-tender and firm in consistency. The external urethral meatus was hidden under the growth. Inguinal lymph nodes were mildly enlarged and non-tender. Systemic examination did not reveal any abnormality. Clinically, it looked like carcinoma penis. Routine laboratory studies of blood, urine analysis, liver and renal function tests were within normal limits including chest X-ray.

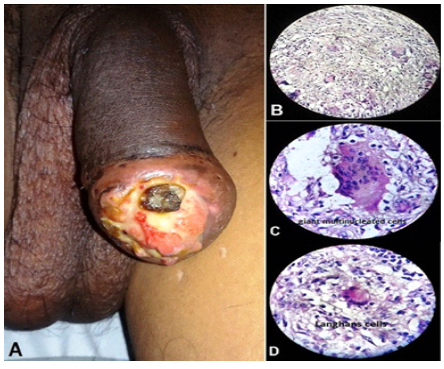

Figure 1 A-Primary tuberculosis of the glans penis showing ulcerated growth with nodular surface occupying the whole of the glans. B –Histological picture under low power (10X), C (under 40X) - Granuloma formation with giant multinucleated cells, D (under 40X) - Langhans cells surrounded by epithelioid cells aggregates, T cell lymphocytes and few fibroblasts.

Wedge biopsy was done under local anaesthesia, but report was inconclusive. It showed acanthosis and mild hyperkeratosis with an accompanying moderately dense mixed inflammatory infiltrate in underlying stroma. Repeat biopsy was done which showed tissue lined by stratified squamous epithelium with infiltration of lymphocytes and histiocytes in subepithelial connective tissue suggestive of granulomatous lesion. After proper counselling, the patient was subjected to partial penectomy. On microscopic examination, the section revealed structure of ulcerative lesion associated with inflammatory cell infiltration, granuloma formation with giant multinucleated cells and langhans cells, surrounded by epithelioid cells aggregates, T cell lymphocytes and few fibroblasts (Figure.1B, 1C, 1D). Resected margins showed chronic inflammation. Histopathology of the lesion was suggestive of tubercular granuloma for which antitubercular therapy (ATT) was started with Rifampicin, Pyrazinamide, Ethambutol and Isoniazid (INH). After two months, Pyrazinamide and Ethambutol were discontinued and the other two drugs were continued for 4 months. Patient was followed up at 2 months and significant improvement was noticed. Till date the patient is on regular follow up and there is no sign of recurrence.

3. Discussion

Genitourinary tuberculosis usually affects the adult populations. It accounts for 2-10% of extrapulmonary tuberculosis in the developed countries and 15-20% in the developing countries (1). Penile tuberculosis in adult is extremely rare. It is <1% of genitourinary tuberculosis (2). In 1878, Fournier described the first case of penile tuberculosis (3).Till 1999, only 161 cases of penile tuberculosis were reported (4). Penile glans may be affected through different mechanisms (3, 5). The lesion may be primary or secondary, depending on the presence or absence of tuberculosis elsewhere. Primary tuberculosis in penis is exceedingly rare and it can be acquired from direct inoculation either during intercourse with a partner suffering from genital tuberculosis or contact with contaminated fabric clothing (6). Long ago, circumcision was thought to be a risk factor when mycobacterium could enter the wounded glans from affected circumcision operators (7). The secondary form is the subsequent complication of pulmonary tuberculosis or other organ involvement.

The disease usually begins as an inflamed papule or a plaque which may ulcerate and involve the cavernous tissue. When fibrosis occurs, there may be distortion of the penis.

Another type of tuberculosis is rapidly necrotic form also known as orificial tuberculosis, seen in the immune compromised or severely debilitated patients. It is a presentation of very advanced and severe TB elsewhere in the genitourinary or gastrointestinal tract. The prognosis of orificial tuberculosis is poor.

Papulonecrotic tuberculid (PNT) is an extremely rare form of penile tuberculosis which is a cuntaneous manifestation of tuberculosis on the glans penis (8).

There have been reports of amputation of penis for non-tumoural lesions, which preoperatively raised a high index of suspicion for penile cancer (9). It is, therefore, suggested that the tubercular etiology should always be included in the differential diagnosis of penile tumours, by performing a preoperative biopsy to confirm the cancer (10).With standard short course regimen of 6 months with first line antitubercular drugs genitourinary tuberculosis can be treated successfully.

Not having a preoperative diagnostic of malignancy, the magnitude of tissue excision must be balanced with the severity of the primary lesion. Penile excisions are associated with a deep psychological impact and counselling the patients are of utmost importance.

In our case, there was total destruction of the glans penis and the patient opted for surgery. Antitubercular therapy was administered after 3 weeks of surgery. Patient was followed up at 2 months and significant improvement was noticed. Till date the patient is on regular follow up and there is no sign of recurrence.

4. Conclusion

Tuberculosis of penile is a rare presentation of genitourinary tuberculosis. The ulcerative growth often mimics malignancy. Although several tests are available for diagnosis of tuberculosis, biopsy is confirmatory. With antitubercular therapy it can be treated successfully but surgery may require in doubtful cases. Organ sparing surgery with fashioning of the penis coupled with antitubercular therapy should be the goal of treatment.

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