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Case Report

Papulonecrotic tuberculid of glans penis: a case report

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Abstract A 19-year-old male presented with recurrent crops of papulopustular lesions on the glans penis which healed with disfiguring scaring. The clinical features and investigations were suggestive of papulonecrotic Tuberculid of the glans penis. No underlying active tubercular focus was present. The patient responded to antituberculosis therapy.

Key words Papulonecrotic, glans penis

Introduction

Tuberculosis is still a major cause of morbidity in developing countries like India. Cutaneous tuberculosis is also not uncommon in these countries. Tuberculids present a cutaneous hypersensitivity response to an underlying focus of tuberculosis. Papulonecrotic tuberculid over the glans penis is a rare occurrence and we report such a case.

Case report

A 19-year-old unmarried male presented with recurrent crops of papulopustular lesions on the glans penis (near the coronal sulcus) of 7 months duration. The pustules would discharge yellowish purulent material to form painful ulcers which healed with scarring in about a month's time. There was no history of trauma, drug intake, fever, cough and constitutional symptoms. There was no personal and family history of tuberculosis. The patient denied history of sexual contact. BCG scar was present.

Examination revealed a single ulcer present on the coronal sulcus, 5x5 mm diameter in size with raised erythematous well-defined margins (**Figure 1**), tender to touch. The floor of the ulcer revealed a yellowish slough. The ulcer was fixed to the underlying structure. Depressed irregular scar was present involving about 50% of the surface area of the glans penis. Scrotal examination revealed no positive finding. There was no significant lymphadenopathy. Mucocutaneous, appendageal and systemic examination were normal. Investigations revealed: eosinophilia (24%), strongly positive PPD skin test (24 mm induration), non reactive VDRL and HIV-1 serology. Chest X-ray revealed no abnormal finding. Tissue smear from the ulcer revealed no positive findings. Urine examination revealed no abnormality. Penile biopsy revealed mild infiltration of subepithelial tissue by chronic inflammatory cells. Multiple sections showed presence of a

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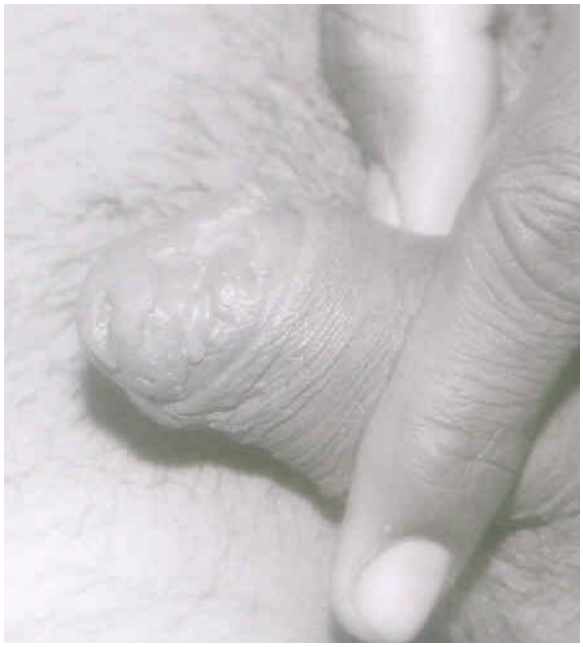

Figure 1 Papulonecrotic tuberculid of glans penis.

granuloma with central zone of coagulation necrosis surrounded by inflammation. The adjacent small vessels showed lymphocytic vasculitis. Stain for AFB was negative. The patient was put on antituberculous treatment (DOTS) for 6 months i.e. isoniazid (300 mg), rifampicin (600 mg) and pyrazinamide (1.5 g) on alternate days for first 2 months, followed by isoniazid (300 mg) and rifampicin (600 mg) on alternate days for next 4 months. The patient is currently taking antituberculous therapy (ATT) and is showing signs of improvement.

Discussion

Tuberculids are cutaneous eruptions in response to an internal focus of tuberculosis in an individual with a moderate or high degree of immunity, usually symmetrical and disseminated and which clear with antituberculosis therapy.[1] Although any organ or system can be affected by tuberculsois, penis is an uncommon site for its involvement. Tuberculosis affecting the penis can be tuberculous chancre, papulonecrotic tuberculid, tuberculosis cutis orificialis or tuberculous gumma.[2] Papulonecrotic Tuberculids represent an allergic reaction to bursts of antigens reaching highly immune skin following haematogenous spread from an internal focus. The tuberculous focus is often not clinically active at the time of eruption[3] as seen in our case.

Papulonecrotic tuberculids are asymptomatic symmetrical dusky red papules which heal with scarring. Young adults are predominantly affected. The sites of predilection are legs, knees, elbow, hands and feet, but ears, face, buttocks and penis may sometimes be the only site involved.1 A few reports of genital tuberculosis have been documented from other parts of the world.[2-7] The basic diagnostic criteria for papulonecrotic tuberculids are: a strongly positive PPD skin test, typical clinical features, a tuberculoid histology with endarteritis and thrombosis of dermal vessels, and response to ATT. The histological findings may be sometimes inconclusive, showing a non-specific or tuberculoid picture. The proof of diagnosis rests on the unequivocal response to ATT.[4] Our patient fulfilled the above diagnostic criteria. Kashima *et al*.[5] reviewed 26 cases of tuberculid of penis reported in the past, and found co-existing tuberculosis elsewhere in only four cases.

Although tuberculosis is common, tuberculids of the penis are rarely reported

even in endemic countries like India. Diagnosis is possible by awareness of the condition, strong suspicion and relevant investigations. An underlying active or healed focus of tuberculosis should be thoroughly searched for.

References

1. Gawkrodger DJ. Mycobacterial infections. In Champion RH, Burton JL, Burns DA, Breathnach SM, eds. *Textbook of Dermatology, 6th edn* Oxford : Blackwell Science; 1998. p. 1181-1212.
2. Anoop UC, Pavithran K. Genital tuberculosis. *Ind J Dermatol Venereol Leprol* 2002; **68**: 164-5.
3. Vijaikumar M, Thappa DM, Kaviarasan PK. Papulonecrotic tuberculid of glans penis. *Sex Transm Inf* 2001; **77**: 147.
4. Murthy SC, Udagani MM, Kajagar BM. Tuberculous epididymo-orchiris and papulonecrotic tuberculids of the glans penis. *Ind J Dermatol Venereol Leprol* 2003; **69**: 408-10.
5. Kashima M, Mori K, Kadono T *et al*. Tuberculid of the penis without ulceration. *Br J Dermatol* 1999; **140**: 757-8.
6. Nakamura S, Aoki M, Nakayama K *et al*. Penis tuberculid (papulonecrotic tuberculid of glans penis): treatment with a combination of rifampicin and an extract from tubercle bacilli (T.B. vaccine). *J Dermatol* 1989; **16**: 150-153.
7. Nishigori C, Taniguchi S, Hayakawa M. Penis Tuberculids: papulonecrotic tuberculids on the glans penis. *Dermatologica* 1986; **172**: 93-7.

Manuscript Submission

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