

PAPULO NECROTIC TUBERCULID ON GLANS PENIS

K. PAVITHRAN * M. VIJAYADHARAN † AND C. GANGADHARAN ‡

Summary

A case of papulo-necrotic tuberculids affecting only glans penis is described. A positive Mantoux test, characteristic histology and response to antituberculous drugs confirmed the diagnosis.

KEY WORDS: Tuberculid, Papulonecrotic tuberculid, Genital tuberculosis, Penile tuberculosis.

Tuberculosis of the skin is not an uncommon disease in this part of the country. It manifests in the skin as true tuberculosis and as tuberculids. Among the tuberculids, the papulonecrotic type is the commonest¹. It is predominantly seen in young adults and most often affects the extensor aspects of the extremities symmetrically. Sometimes the ears and the penis also may be involved along with the lesions on other sites^{2,3,4}. The eruption consists of recurring crops of dusky red papules which undergo central necrosis with ulceration and heal in few weeks to leave pitted scars. There is a tendency for the lesions to run their course in a few months and to be followed by fresh outbreaks, the disease lasting for years. A search for deep focus of tuberculosis — Pulmonary or non pulmonary — is essential in all the cases. The tuberculin

test is positive in variable intensity. The proof of diagnosis rests mainly on the response to antituberculous drugs, which starts within a few days whether a deep focus exists or not². Histology reveal a small area of necrosis involving the upper dermis and the overlying epidermis. This area is surrounded by an intense inflammatory cell infiltrate in which epithelioid and giant cells may be characteristic^{2,3,5}. The blood vessels of the dermis may show changes of vasculitis^{3,6}. Here we report a patient in whom the lesions of the papulonecrotic tuberculid were found involving the glans penis only.

Case Report

A 24 years old unmarried man attended the dermatology department of Medical College Hospital, Trivandrum in March 1980 because of recurrent ulcerating lesions on his glans penis for three years. The lesions used to appear on the glans penis in crops associated with mild fever and general malaise. These appeared as pea sized firm papules which softened in the centre in about a week's time and healed in 2 to 3 weeks leaving pitted scars. 6 months prior to admission patient noticed persistent, tiny, tense vesicles on the ridges between the depressed scars. He received various drugs like

* Tutor

† Postgraduate Student

‡ Professor

Dept. of Dermatology and Venereology
Medical College Hospital, Trivandrum
S. India

Request for Reprint :

Dr. K. Pavithran

Dept. of Dermato. and Vener. Medical
College Hospital, Trivandram.

Received for publication on 27-4-1981.

benzathine penicillin, tetracycline and systemic steroids, but continued to develop new lesions. He denied any history of exposure to venereal diseases. There was no one in his family suffering from tuberculosis. General examination did not reveal any abnormality.

Genital examination revealed multiple discrete and confluent, 4 to 8 mm sized depressed scars on the glans penis. Multiple tiny, tense vesicles were noted on the ridges between the pitted scars. Puncture of some of the vesicles resulted in oozing of clear fluid. There was no erythema surrounding the vesicles. There was no urethral discharge. The prepuce, epididymis and the scrotum appeared normal. The inguinal group of lymph glands were not significantly enlarged. There were no skin lesions elsewhere. Evolution of some of the lesions on the glans penis were observed while the patient was in the ward. These started in crops of five to six asymptomatic papules. Each papule after

attaining a size of 6-10 mm developed central necrosis which resulted in an ulcer that healed in 2 to 3 weeks to form a depressed scar.

Investigations

Hemoglobin level was 10 gm% and ESR 110 mm (Westergren) at the end of 1st hour. White blood cell counts were within normal limits and blood VDRL nonreactive. Routine examinations were normal. X-Ray of the chest was normal. Mantoux test was tve (PPD 1 unit ID) 15 mm after 72 hours. Histological study of an early papule revealed early changes of necrosis in the upper dermis. This area was surrounded by dense collection of inflammatory cells consisting of epithelioid cells, lymphocytes and giant cells (Langhans type). Multiple tubercles were noted in the dermis (Fig. 1). Some of the blood vessels in the dermis showed endothelial proliferation and infiltration of their walls by inflammatory cells. The epidermis in one area was found necrosed. No fungal element was seen in sections

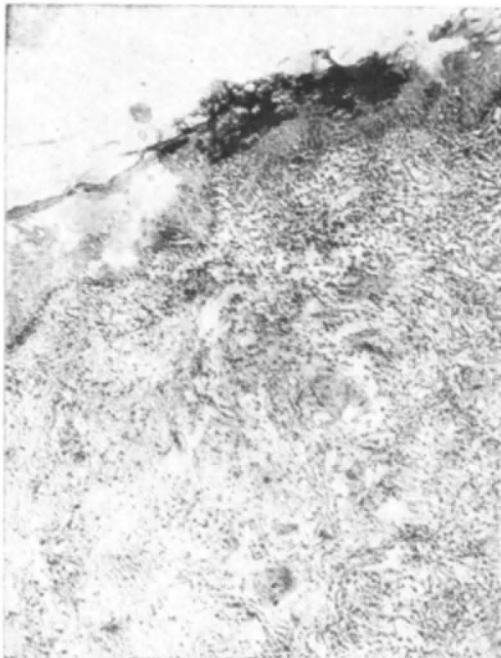


Fig. 1

Histology of an early papule of glans penis. Note early changes of epithelial necrosis. The dermis shows multiple tubercles with a few Langhan's type of giant cells (H & E \times 40).

stained with PAS. The patient was treated with antituberculous drugs; INH 300 mg daily and thiacetazone 150 mg daily. Lesions stopped appearing after six weeks of starting these drugs. The vesicles at the ridges on the glans penis were unaltered. A follow up for 8 months showed no evidence of recurrence.

Discussion

Papulonecrotic tuberculid is the commonest type of tuberculid seen in our hospital. It usually appears bilaterally and involves the extensor aspect of the arms, dorsa of the hands and feet, knees and ears. Penis also may be involved along with lesions on other parts of the body^{2,3,4}. The involvement of the glans penis in our patient, without involvement of any other site is unusual. The morphology of the lesions, evolution and course, positive Mantoux test and characteristic histology were all in favour of the diagnosis of papulonecrotic tuberculoids. The dramatic response to treatment with antituberculous drugs further proves the tuberculous aetiology of these "ids". The persistent tiny tense vesicles noted on the ridges in between the 'pit' were the result of lymphangiectasia due to obstruction of the lymph vessel secondary to the scarring. Routine screening investigations did not reveal any

underlying focus of tuberculosis. Findlay and Morrison⁷ could find such focus in only 38 percent of the 91 cases studied in South Africa.

References :

1. Andrews GC, Domonkos AN: Diseases of the skin, WB Saunders Company, Philadelphia, 1971.
2. Wilkinson DS: Tuberculosis of the skin, Text Book of Dermatology Vol. 1, 3rd Ed. Edited by Rook A, Wilkinson DS, Ebling FJG, Blackwell Scientific Publications, Oxford, London, Edinburgh, Melbourne, 1979, p. 677.
3. Moschella SL: Benign reticulo endothelial diseases, Dermatology Vol. I, Edited by Moschella SL, Pillsbury DM, Hurley HJ, WB Saunders Company, Philadelphia, London, Toronto, 1975, p. 751.
4. Wong KO, Lee KP, Chiu SF: Tuberculosis of the skin in Hongkong (A review of 160 cases), Brit J Derm, 1968; 80: 421-429.
5. Lever WF, Lever GS: Histopathology of the skin, J B Lippincott Company, Toronto, Philadelphia, 1975.
6. Johnson WC: Tuberculosis and other diseases due to Mycobacteria, Dermal Pathology, 1st Ed. Edited by Graham JH, Johnson WC, Hellwig EB, Harper and Row Publishers, London, 1972, p. 387.
7. Findlay GH, Morrison JGL: Idiopathic gangrene in African adults, Brit Med J, 1973; 1: 173.