TUBERCULOUS GUMMAS
(Case Report)

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Summary

A rare form of Cutaneous tuberculosis - Tuberculous Gumma - is described in a sixty year old female patient.

Tuberculosis of the skin is not a rare entity in this part of the country. In the skin, tuberculosis presents itself in an astonishing variety of clinical expressions. Though there are overwhelming reports of different types of cutaneous tuberculosis in the literature, "Tuberculous Gummas" are only rarely reported.

Miller and Cashman[1] reported it as "metastatic tuberculous abscess". Here caseating tuberculosis develops in the cutis or subcutis, independently of underlying lymph nodes and gradually invades the subjacent skin and eventually ulcerate[2]. It has also been described as 'Scrofuloderma gummasa' and 'tuberculosis cutis colliquative[3]'. Garb[4] reported it in the breast of a female patient. Montgomery[5] described it in a patient who presented with multiple subcutaneous abscesses. Sutton[2] classified this entity under haematogenous type of cutaneous tuberculosis, in which disseminated tuberculosis of the skin result. According to him the immunity of these patients is inadequate to prevent caseation. Clinically, the 'gumma' usually presents as a firm subcutaneous nodule which slowly softens[6], or as an ill-defined fluctuant swelling[7]. Single or multiple gummata are most frequent on extremities, but can occur on trunk. The overlying skin gradually breaks down to form an undermined ulcer. The subsequent changes are those of scrofuloderma with a bluish surrounding skin, tethered to the inflammatory mass. Secondary gummata may rarely arise along the course of draining lymphatics[8]. The histopathologic examination reveal tuberculous granuloma[9].

Case Report

A sixty year old lady was admitted to the Dermatology ward of Medical College Hospital, Trivandrum, with multiple painful cutaneous ulcers and deforming scars of seven years duration. She had irregular fever and loss of weight for five years and had been receiving various antibiotics and anti-inflammatory agents without much relief. She had not received any antituberculous drugs. During her childhood, she had suppurative adenitis which left deforming scars on the side of the neck. There was no history of tuberculosis in the family.

Dermatological examination revealed multiple painful and shallow ulcers with undermined edge and bluish margin which was tethered to underlying circumscribed indurated mass. The

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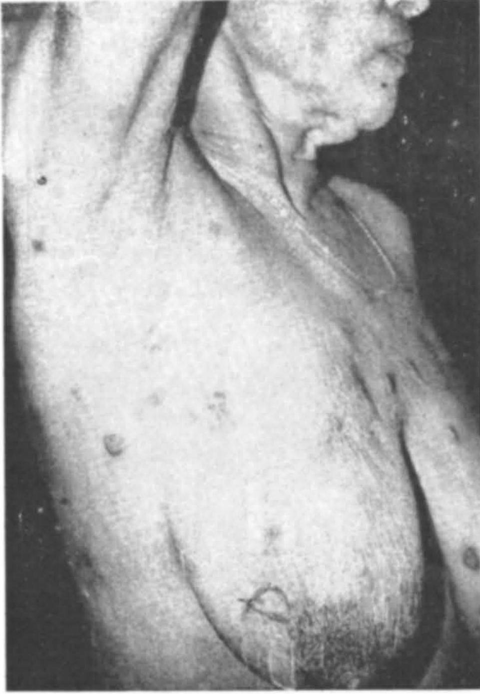

Fig. 1 Showing multiple scars at sites of gummas. Note one active 'Gumma' on the breast.

skin of the breasts, chest wall, thighs and groin were affected by such lesions. Earlier lesions affection had left behind multiple, circular atrophic as well as hypertrophic scars (Fig 1). Inguinal and axillary lymph nodes were not significantly enlarged. The evolution of few 'gummata' were observed while the patient was in the ward. The lesion developed as an erythematous, indurated, firm, circumscribed swelling. In four to five days the overlying skin got adherent to the underlying mass which soon became fluctuant and finally was broken down to form painful, shallow ulcers with undermined edges (Fig. 2). The margin soon became bluish in color and got tethered to the underlying mass. Systemic examination revealed no abnormalities.

Investigations

Blood Hb 10 gram% ; T. C. 12,000 Cells/c mm; D. C. Poly 45 ; Lympho 50 ; Eosino 5 ; ESR 120 mm/hr (Westegren) ; VDRL Non Reactive ; X-Ray of the chest Normal; Mantoux + ; (Fig. 2). Smear taken from undermined edge of ulcer showed AFB ; Histological examination of the biopsy material taken from the edge of ulcer revealed an ulcerated area of skin which was covered by necrotic material with granulation tissue in the deeper zone. Groups of Langhan's type of giant cells surrounded by epitheloid cells and lymphocytes were seen.

Treatment

While in the ward, the patient was treated with injection streptomycin 1 Gm I.M. daily along with INH 300 mg and Thiacetazone 150 mg. The ulcers were healing well on twentyfirst day of therapy on which she was

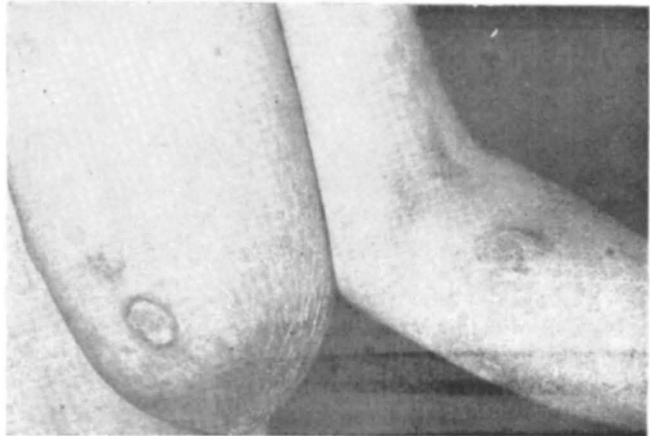

Fig. 2 One 'Gumma' on the breast which has burst to form a typical tuberculous ulcer with undermined edge and bluish margin. Note the site of tuberculin test on the forearm.

discharged from the ward with advice to continue INH and thiacetazone in the same dose for one and a half years.

Discussion

Though cutaneous tuberculosis of different types - both true tuberculosis and tuberculids - have been reported by many, 'Tuberculous Gumma' is only rarely reported. Tuberculous gumma result from haematogenous dissemination from a primary site of tuberculosis especially in malnourished children with impaired immunity[9]. Our patient was an elderly woman. Clinically or by investigations we could not detect any focus of tubercle bacilli. The scar in the neck (Fig. 1) suggested the possibility of tuberculous adenitis during her childhood. Tuberculous gumma differ from scrofuloderma in arising independently of an underlying lymph node[2]. The breasts were affected maximally in our case. This has been noted by Garb[4] also. Sutton[2] was of opinion that inadequate immunity is responsible for multiple dissemination of tuberculosis. The 'gumma' developing along the draining lymphatics was not a feature in our case[8]. The characteristic histological changes of tuberculosis were noted in the skin biopsy. The positive mantoux and the response to antituberculous drugs corroborate the tuberculous aetiology of these 'gummas'.

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