TUBERCULIDS - A CONCEPT*

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Summary

Three cases of Tuberculids are presented and the concept of Tuberculids is analysed.

The term 'Tuberculids' was first proposed by Darier in 1869. It denotes certain clinical manifestations produced on the skin as a result of hypersensitivity to Tubercle Bacilli[1]. These organisms are suspected to be disseminated haemotogenously from a focus of infection often extrapulmonary in location[2]. In these cutaneous lesions viable organisms are absent and the lesions are believed to be produced by the bacterial products liberated by the destruction of the bacilli[3]. Four conditions are generally included under the term 'Tuberculids' — viz., Lichen Scrofulosorum, Papulonecrotic tuberculid, Erythema induratum and Lupus miliaris disseminatus facei. Recently workers like Flegel[4] and Lever[2] have expressed their doubt on the existence of an entity called Tuberculids. They are of the opinion that there is no convincing proof for their tuberculous aetiology. A focus of active tuberculous infection is not detected and these do not respond to antituberculous treatment[5 6]. Lever[2] has suggested that the tuberculoid histologic picture seen in these cases, which can be a non-specific reaction, probably has prompted the earlier workers to call them by the term 'Tuberculids.'

The purpose of this paper is to analyse the concept of tuberculids, in the light of three cases of Tuberculids, which attended the Dermatology section of the Medical College Hospital, Trivandrum during the last two months.

The first case was a girl aged 13 years, who presented with lymph node swellings in both the axillae, closely set minute skin coloured papules on the trunk and limbs, papulopustular lesions on the neck and face (Fig. 1)

Fig. 1

Case of Lichen Scrofulosorum showing papulopustular lesions on the face and neck.

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and phlyectenular conjunctivitis of the left eye (Fig. 2). The axillary swelling and the skin lesions on the trunk and limbs were of six months duration, while the phlyectenular conjunctivitis

Fig. 2

Phlectenular conjunctivitis of the left eye associated with Lichen scrofulosorum.

and the lesions on the neck and face were of one month duration. On investigation, her mantoux was strongly positive and was about 20 mm. in size (Fig. 3). Biopsy from the skin lesion showed a tuberculoid histology with

Fig. 3

Strong tuberculin positivity in the same case. Note also the minute closely set papules on the forearm.

collections of epitheloid cells and giant cells in the dermis (Fig. 4). A biopsy of the lymph node from the axilla showed typical caseating tuberculous lymphadenitis. Other routine investigations on the urine and blood and X-ray of the chest were normal. A diagnosis of Lichen scrofulosorum with tuberculous lymphadenitis with phlyectenular conjunctivitis was made.

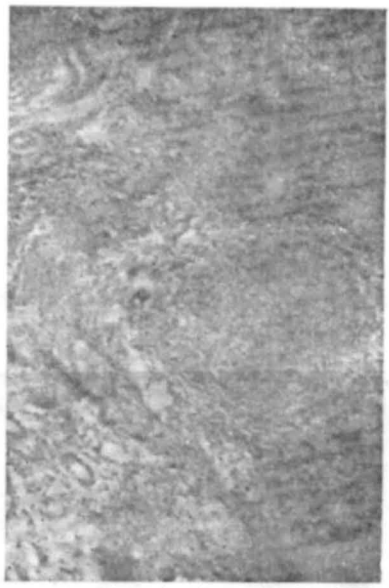

Fig. 4

Skin biopsy section of Lichen Scrofulosorum showing typical tubercles in the dermis with giant cells and epitheloid cells.

The second case was a male aged 23 years who presented with multiple papulo ulcerative lesions and rounded atrophic scars of earlier lesions on the trunk and upper limbs. These lesions were coming on recurrently with spontaneous healing since one year. On examination, the axillary lymph nodes were enlarged on both sides and they were firm and discrete. On investigation, the mantoux was strongly positive and was about 20 mm in size. Biopsy from a skin lesion showed a tuberculoid histopathology with an occasional giant cell and a dense infiltrate with lymphocytes. A lymph node

biopsy from the axilla revealed caseating tuberculous lymphadenitis. X-ray of the chest and other routine investigations on the blood and urine were normal. In this case a diagnosis of papulonecrotic tuberculid with tuberculous lymphadenitis was made.

The third case was a male aged 20 years who presented with multiple flat topped papular lesions, papulopustular lesions and atrophic varioliform scars of earlier lesions distributed mainly on the central parts of the face and a few lesions on the pinna of the ear and the scalp (Fig. 5). These lesions were coming on recurrently for about one year. To start with they were papules, some of which became papulopustular lesions and healed with depressed scarring. On examination there was no other significant finding.

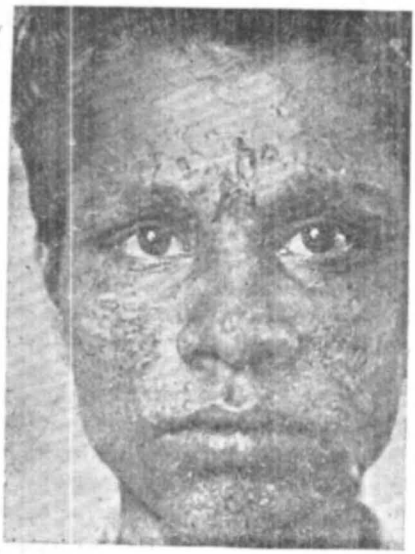

Fig. 5

Cases of Lupus miliaris disseminatus facei showing flat topped papules, papulopustules and scarring involving mainly the central part of the face.

With a provisional clinical diagnosis of ?Lupus miliaris disseminatus facei ?Acne varioliformis the case was investigated. The absence of lesions in the hair margin and the absence of regional lymph node enlargement were against the clinical diagnosis of Acne varioliformis, which is a form of chronic pyoderma. On investigation, tuberculin test done with serial dilutions was negative, X-ray chest was normal, and swab culture from the lesion was sterile. Histologically, the skin lesion showed in the dermis, typical tubercles with caseation necrosis, epitheloid cells and giant cells (Fig. 6). With the histological and clinical picture together a diagnosis of Lupus miliaris disseminatus facei was made.

Fig. 6

Histological appearance of the skin lesion of lupus miliaris disseminatus facei. Note the typical tubercle formation in the dermis.

Discussion

The first two cases fulfilled the four important criteria put forward by Pillsburry et al[1] to diagnose 'Tuberculids'. They are: (i) a positive tuberculin test, (ii) a tuberculoid histologic structure, (iii) lesions which are clinically typical of one of the validated types of tuberculid and (iv) an active tuberculous focus. The presumed hypersen-

sitivity mechanism as the underlying cause for Tuberculids was amply proved by the strong tuberculin positivity in the first two cases and also by the presence of phlyectenular conjunctivitis in the first case. An active tuberculous focus was definitely proved in both the cases in the lymph nodes. The tuberculoid histologic picture was undoubtedly confirmatory to the diagnosis of tuberculids in these two cases, but, it was not the only basis by which this diagnosis was made, as reported earlier by Lever[2]. As antituberculous treatment has been just started on these patients, it is not yet time to evaluate its response.

The third case viz., Lupus miliaris disseminatus facei neither showed an active tuberculous focus nor a positive tuberculin test. In this case of Lupus miliaris disseminatus facei one is inclined to agree with Lever[2] that it was probably included as a Tuberculid only because of its tuberculoid histologic picture.

Based on the above three cases, our suggestions are:

(i) to retain the term 'Tuberculids' as a well defined entity with Lichen Scrofulosorum and Papulonecrotic tuberculid as unquestioned tuberculids and

(ii) to exclude the condition Lupus miliaris disseminatus facei from the entity called 'Tuberculids'.

REFERENCES

1. Pillsbury DM, Shelly WB and Kligman AM: Dermatology, WB Saunders Co., Philadelphia 1956 p 525.
2. Lever WF: Histopathology of the skin, Pitman Medical Publishing Co., Ltd, London, 1967 p 300.
3. Rook A, Wilkinson DS and Ebling FTG: Textbook of Dermatology, Blackwell Scientific Publications, Great Britain 1968 p 672.
4. Flegel H: Die Stellung des Tuberculids in Rahmen der Tuberkulose Derm Wschr 145: 609, 1962.
5. Chantraine R: Un traitement efficace des tuberculides papulonecrotiques rebelles Arch Belg Derm Syph 14: 369, 1958.
6. Van der Lugt L: Some remarks about tuberculosis of the skin and tuberculids Dermatologica 131: 266, 1965.