

Correspondence

Revisiting tuberculids – Five year experience in a tertiary care teaching hospital

Sir,

The concept of tuberculid was introduced by Darier in 1896^{1,2}. The tuberculids are explained as a hypersensitivity reaction to *Mycobacterium tuberculosis* or its products in a patient with significant immunity. The diagnosis is difficult and rests on the features of a positive tuberculin test, evidence of past or present tuberculosis (TB) and a positive response to antituberculous therapy². The four true tuberculids are lichen scrofulosorum (LS), papulonecrotic tuberculid (PNT), erythema induratum of Bazin (EI) and nodular tuberculid. The changing trend in the pattern of cutaneous TB towards tuberculids in children was noted in 2008 by Sethuraman *et al*³. This study was aimed at identifying the characteristics of tuberculids in patients attending a tertiary care teaching hospital in Odisha, India. A retrospective analysis of all the cases of cutaneous TB attending the Skin and Venereal Disease Outpatient Department of the Institute of Medical Sciences and SUM Hospital, Bhubaneswar, from January 2009 to December 2013 was undertaken. Among them, patients presenting with tuberculids were identified, and the epidemiological parameters and laboratory investigations were analyzed. The study was approved by the institutional ethics committee.

A total of 128 patients with cutaneous TB were identified during the study period, of whom 21 (16.41%) with tuberculids were noted. Of these 21 patients with tuberculids, 15 were identified as LS and six PNT. EI of Bazin and nodular tuberculid were not seen. Most of the patients having tuberculid [14 (66.67%)] were <15 yr of age at the time of presentation as compared to seven (33.33%) patients who were aged more than 15 yr. The male to female ratio was 1.33:1 with slight male preponderance. History of Bacillus Calmette–Guérin (BCG) vaccination was found in 12 (80%) patients of LS and five (83.33%) patients of PNT. A close contact history of TB was found in three patients. Mantoux test was positive in nine patients (60%) of

LS as compared to five (83.33%) of PNT. Clinico-histological concordance was found in 12 (57.14%) of the 21 patients. A systemic focus of TB other than cutaneous involvement was seen in five (33.33%) patients of LS and two (33.33%) patients of PNT. The tuberculids were present along with other forms of cutaneous TB in eight (53.33%) patients of LS and four (66.67%) of PNT (Table).

Singal and Bhattacharya⁴ studied the characteristics of 39 patients with LS; 72 per cent of their patients had an associated tubercular focus in the form of tubercular lymphadenopathy, pulmonary TB, intracranial TB and other forms of cutaneous TB, and 72 per cent had evidence of receiving BCG vaccination. In our study, 10 (66.67%) of the 15

Table. Characteristics of tuberculids in patients (n=21)		
Parameters	Lichen scrofulosorum (n=15)	Papulonecrotic tuberculid (n=6)
Age (yr)		
≤15	13	1
>15	2	5
Sex		
Male	8	4
Female	7	2
BCG history (scar)	12 (80)	5 (83.33)
Contact history	3	0
Habitat		
Rural	15	5
Urban	0	1
Mantoux positive	9 (60)	5 (83.33)
Biopsy positive	7 (46.67)	5 (83.33)
Systemic focus	5 (33.33)	2 (33.33)
Cutaneous TB	8 (53.33)	4 (66.67)
Values in parentheses are percentages		
BCG, Bacillus Calmette–Guérin; TB, tuberculosis		



Fig. 1. Lichen scrofulosorum associated with lupus vulgaris on the right upper extremity.



Fig. 2. Papulonecrotic tuberculid.



Fig. 3. Scrofuloderma associated with papulonecrotic tuberculid.

patients with LS had associated tubercular focus in the form of tubercular lymphadenopathy, pulmonary TB and other forms of cutaneous TB (Figs 1-3). As per the National Family Health Survey-3⁵ data, the full immunization coverage was 52 per cent in Odisha. The protection rate offered by BCG varies from 0 to 80 per cent⁶ which shows poor coverage and unpredictable protective value offered by BCG. Beena *et al*⁷ studied eight patients of LS, of whom five had associated pulmonary TB. In a study on 15 patients with PNT, Mantoux test was strongly positive in 13 and five patients showed evidence of associated TB⁸. The same group reported seven of eight children with PNT having associated pulmonary TB and additional clinical findings included fever, hepatomegaly, splenomegaly, lymphadenopathy and phlyctenular conjunctivitis⁹. In our study, five of the six patients with PNT showed Mantoux test positivity and associated TB. Tirumalae *et al*¹⁰ described the characteristics of 12 patients with PNT with all showing strong Mantoux test positivity and seven having associated systemic TB in the form of tubercular lymphadenitis, osteomyelitis and hepatic and pulmonary TB. Another study reported four patients with nodules on the legs which cleared completely with antitubercular therapy¹¹. The nodules were dull red to bluish red, non-tender, non-ulcerating in nature. Mantoux test was strongly positive in all cases, and associated pulmonary TB was present in two of them. Friedman *et al*¹² reported a case of nodular tuberculid in a patient with HIV infection.

We did not come across any cases of EI of Bazin or nodular tuberculid during our study period which may be attributed to the small sample size and possible diagnostic lacunae. The clinical identification of isolated tuberculid presentation in Indian scenario is important from a dermatologist point of view as it is a curable disease, if diagnosed correctly. Hence, more studies should be undertaken.

Conflicts of Interest: None.

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Received January 15, 2015

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