

## UNUSUAL HISTOLOGICAL FEATURE IN A CASE OF LICHEN PLANUS

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### Summary

A case of linear lichen planus in a child is reported for an unusual histological feature, namely the presence of multiple foreign body giant cells in the inflammatory infiltrate engulfing the melanin pigment.

KEY WORDS: Lichen Planus, Histology, Foreign Body Giant Cells.

The clinical and histopathological features of lichen planus are characteristic enough to make a diagnosis easy. These features have been well documented for several years and one would suspect that there is hardly a fresh feature which can be added to the already established ones.

In a patient who attended the dermatology clinic and was diagnosed to have lichen planus clinically, showed on biopsy a hitherto unreported finding. Amongst the marked inflammatory cells of the infiltrate in the upper dermis were seen many foreign body giant cells ingesting the incontinent pigment.

### Case History

A 2½ year old female child was brought to the clinic by her parents

who complained of a gradually progressive skin lesion on the child's right wrist which was initially noticed at the age of 1 year. The lesion was asymptomatic. Excepting that the child was a poor eater and prone to frequent upper respiratory tract infections, there were no other complaints.

Family history was non contributory in regard to skin problems or any other significant illness.

Examination showed the child to be pale and underweight; her weight recorded being only 8.9 kg. Systemic examination revealed no abnormalities.

Skin lesions were present on the flexor aspect of the right wrist. These consisted of about 10-12 pinkish to violaceous flat-topped papules arranged in a linear fashion. A clinical diagnosis of linear lichen planus was made. A differential diagnosis of linear epidermal naevus was also considered. Biopsy was done at the request of the parents who were anxious about the prognosis of the skin condition.

*Histology* showed pigmented skin with hyperkeratosis, hypergranulosis and acanthosis of the epithelium with a

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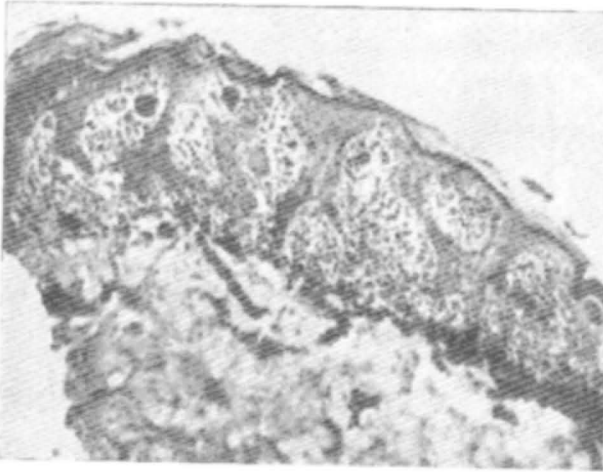
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frayed basal margin due to a band like infiltrate of mononuclear cells hugging the epidermis. The lower border of the infiltrate was clear-cut and sharp (Fig. 1). The basal layer showed degenerative changes and occasional hyaline bodies were present (Fig. 2).

1½ years ruled out lichen striatus clinically. Although non-pruritic, a clinical diagnosis of lichen planus was entertained on the basis of the morphological features. Asymptomatic forms of lichen planus are known to occur (4,5,6,7).



**Fig. 1**  
The sharp and clear-cut lower margin of the infiltrate.

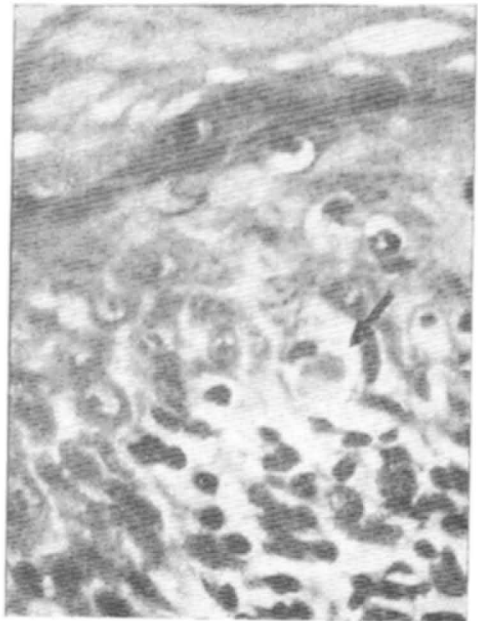
Well marked pigmentary incontinence was present (Fig. 3). Several foreign body giant cells were seen among the inflammatory cells around the melanin pigment (Figs. 4 & 5).

The histology showed epidermal and dermal changes consistent with those

**Discussion**

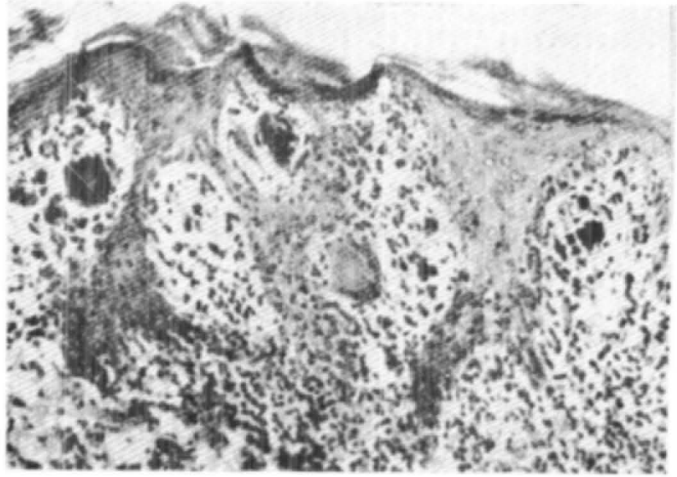
Linear and localised papulo-squamous lesions occurring in infancy and childhood are known to belong to varying etiological conditions. Among these are lichen striatus, linear form of epidermal nevus, linear inflammatory epidermal verrucous nevus, linear lichen planus, linear psoriasis and linear form of keratosis follicularis. (1,2,3).

Some workers recognise a linear form of neurodermatitis also occurring in childhood and presenting as linear papules (1,2,3). Probably the more common among these conditions are the linear epidermal nevus and lichen striatus. The persistence and progression of the lesion over a period of



**Fig. 2** The basal layer shows hyaline body. (See arrow)

**Fig. 3**  
Well marked pigment  
incontinence.



of lichen planus. It also helped to rule out all other diagnostic clinical probabilities. One unusual feature was however prominent. Amongst the heavy inflammatory infiltrate in the upper dermis were seen an abundance of incontinent pigment with large numbers of foreign body giant cells engulfing the pigment.

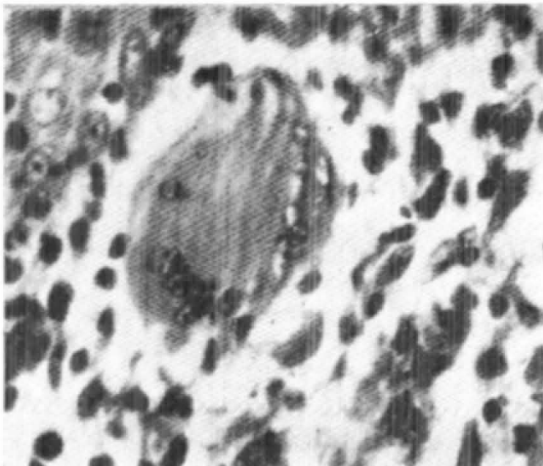
Many inflammatory dermatoses are characterised by considerable incontinence of pigment. As a notable feature, this occurs in at least 3 conditions, namely lichen planus, discoid lupus erythematosus, and incontinentia

pigmenti. It has been also described as a histological feature of inflammatory linear epidermal verrucous nevus<sup>8</sup>.

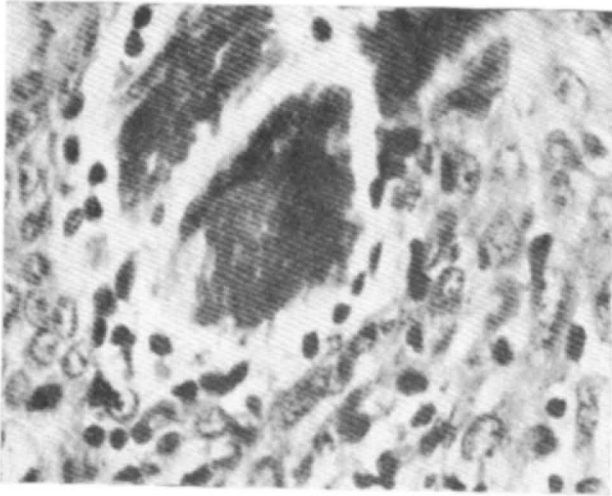
Giant epithelial cells have been noted very rarely in lichen planus<sup>9</sup>. However, presence of macrophages ingesting incontinent pigment and forming foreign-body giant cells has not been earlier recorded.

**References**

1. Kaidbey KH and Amal K Kurban :  
Dermatitic epidermal nevus, Arch Dermatol, 1971; 104 : 166-171.



**Fig. 4**  
Foreign body giant cells engulfing  
the incontinent pigment.



**Fig. 5**

Large foreign-body giant cell which has engulfed the incontinent pigment.

2. Jules Altman and Amir H Mehnegan : Inflammatory linear verrucous epidermal nevus, Arch Dermatol, 1971; 104: 385-389.
3. Renato G Staricco : Lichen striatus, A Study of 15 new cases with special emphasis on the histopathological changes and a review of the literature, Arch Dermatol 1959; 79 : 311-323.
4. Sammon PD : Lichen planus and lichenoid eruptions, Text Book of Dermatology Vol 2, Edited by Arthur Rook, Wilkinson DS & Ebling FJG, 3rd edition Blackwell Scientific Publications Oxford 1979 p 1489.
5. Hurley HJ: Papulosquamous eruptions and exfoliative dermatitis, Dermatology Vol 1, Edited by Moschella, Pillsbury, WB Saunders Company, Philadelphia, 1975; p 434.
6. Altman J, Perry HO: Variations and course of lichen planus, Arch Dermatol 1961; 84 : 179-181.
7. Tompkins JK : Lichen planus, Statistical study of 41 cases, Arch Dermatol 1955; 71 : 515-519.
8. Arthur Rook : Naevi and other developmental defects, Text Book of Dermatology Vol 1, Edited by Arthur Rook, Wilkinson DS & Ebling FJG, 3rd edition, Blackwell Scientific Publications, Oxford, 1979; p 1489.