

Lymphomatoid contact dermatitis

A syndrome produced by epicutaneous hypersensitivity with clinical features and a histopathologic picture similar to that of mycosis fungoides

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Four cases have been studied which were clinically suggestive of mycosis fungoides because of their infiltrated plaque-like lesions, but in which the suspicion of a topical hypersensitivity arose when a positive patch test was obtained with the striker part of a box of matches.

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We have had occasion to observe several cases which could be interpreted clinically, from the morphological character and persistence of the lesions, as a form of xanthoerythrodermia perstans or parapsoriasis-en-plaques; with their complaint of intense pruritus they were reminiscent of mycosis fungoides. Several cases were histologically diagnosed as such. We consider it important to report these cases because they are caused by a hypersensitivity reaction.

Case histories

Case 1. A 54-year-old male had noticed a dry, pruritic erythematous plaque about the size of the palm of his hand on his right thigh about four months earlier. The plaque grew progressively in area and in depth. Some time later, a similar lesion appeared on his left thigh. The first lesion appeared in August 1973. During the ensuing months, there arose multiple erythematous, oedematous, ill-defined lesions all over the face,

retroauricular areas and the sides of the neck. Their course was one of remissions and exacerbations. Topical treatment with corticosteroids did not produce any improvement. Later, he developed another lesion on the left pectoral area. Examination showed on both thighs two plaque-like lesions, about 10 cm wide, which were erythematous, scaly, intensely infiltrated and with well-defined borders. Violaceous erythematous, scaly infiltrated plaques were also found on the face, behind the ears and on the neck. There was another plaque, the size of the palm of a hand, on the left pectoral region; it had the same features as the others. Multiple biopsies were obtained which showed a dense infiltrate, band-like with histiocytes, lymphocytes and some eosinophils. There was lymphocytic exocytosis, sometimes forming nests and in some areas, limited spongiosis. The histologic picture and its clinical counterpart were like that of infiltrated mycosis fungoides.

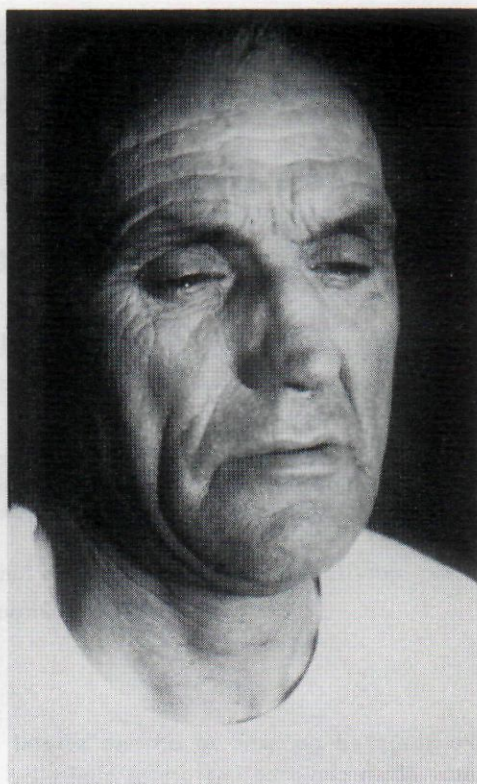


Fig. 1. A and B. Thigh and face lesions.

Case 2. A 64-year-old male has been under observation since October 1973. He stated that 1½ years ago he noticed on the antero-lateral surface of his right thigh a red, highly pruritic plaque-like lesion. It was small at first, but eventually reached 12 cm. As it grew in width, it also grew in depth. After two months, a similar lesion appeared and grew on his left thigh. Five months ago he also developed lesions of the same character on the cheeks, forehead, sides of the neck, parasternal region and, later, on the forearms and hands. The lesions presented phases of exacerbations and remissions.

On physical examination, the patient showed, at the sites mentioned above, plaque-like lesions 12 to 14 cm in diameter. All routine blood tests were negative.

For histopathologic study, two biopsies, one central and one peripheral, were taken from the lesion on the right thigh. The findings from both sites were overlapping. The epidermis was acanthotic. In the dermis, there was a dense infiltrate in the form of a superficial band, consisting of histiocytes and lymphocytes, without nest formation. Some lymphocytes in the dermis were hyperchromatic. It was considered that the histologic picture was typical of mycosis fungoides, and such was the presumptive diagnosis.

Results

On reviewing these patients, it was thought that the lesions could be due to a contact dermatitis initiated on the thighs through



Fig. 2. Acantholytic epidermis. In the dermis there is a dense infiltrate in the form of a superficial band.

the pockets of the trousers, and then spread elsewhere. A careful history suggested the possibility of topical sensitization.

Allergic patch tests

The following patch tests were carried out:

Case 1. Routine tests were all negative (potassium dichromate, cobalt sulfate, balsam of Peru, nickel sulfate, formol, phenol, formaldehyde, benzocaine, novacaine, paraphenylenediamine, mercury sublimate, hexachlorophene, turpentine, thiurams, mercapto-benzothiazole, diphenylguanidine, neomycin, sulfanilamide and parabens). The tests were read at 48, 72 and 96 hours. Soap tests were also made (alkalase, pyra-

zoline, blancophor, Tinopal, Uvitex) but none was positive.

Case 2. Standard patch tests were negative as in Case 1. A patch test was then made with the striker part of a box of matches which was intensely positive in these and other patients seen at about the same time. This finding fitted the clinical pattern; the patients kept a box of matches in their trouser pocket until they had a reaction, then switched to the pocket on the other side and from there to the shirt pocket; these were the sites, and the order of appearance of the lesions. Distant lesions also occurred, probably due to spread of allergen on the hands. More recently, in May 1974, we observed two more cases. The third case,

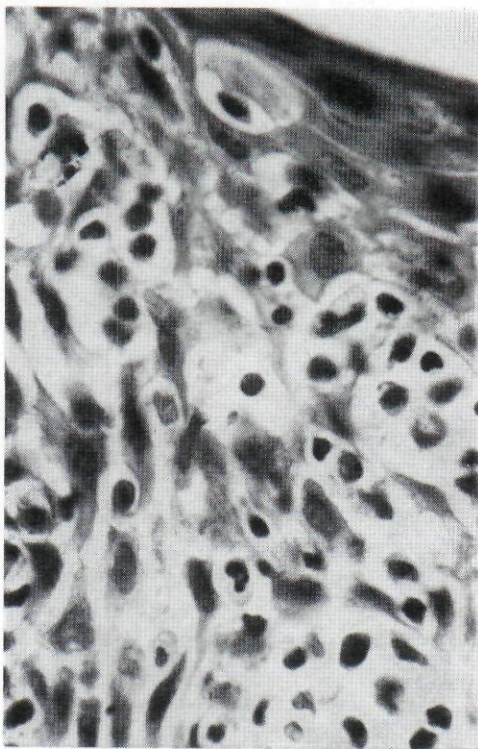


Fig. 3. Lymphocytic exocytosis sometimes forming nests, and limited spongiosis.

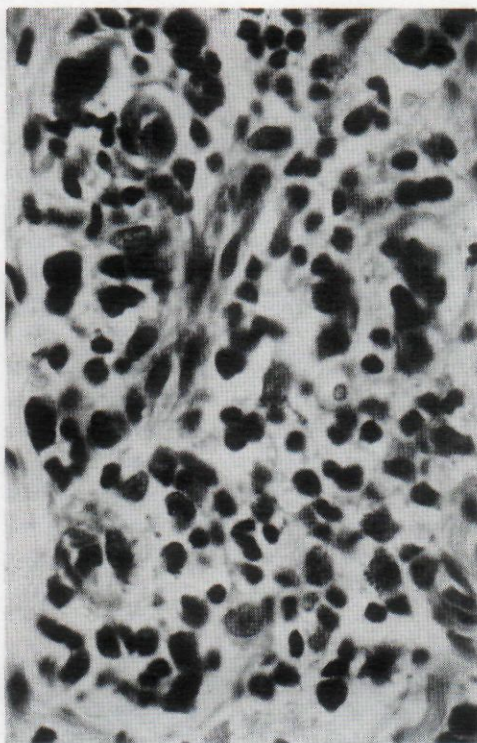


Fig. 4. Dense infiltrate of histiocytes and lymphocytes, some of which are hyperchromatic.

a 39-year-old male, had lesions up to 18 cm diameter of one year's duration, on his left thigh. Physical examination disclosed an erythematous, scaly papular plaque. The histologic picture was that of a superficial infiltrate of lymphocytes and histiocytes suggestive of parapsoriasis-en-plaques. The fourth case was a 42-year-old male with a 10 × 10 cm lesion on the right thigh and a 4 × 4 cm lesion which appeared later on the left thigh. Histologically there was a lympho-histiocytic infiltrate, acantholysis of the epidermis and spongiosis.

Case 3. Standard patch tests were carried out as in Cases 1 and 2; all were negative. We also patch-tested the striker part of a box of matches and the nylon lining of the

patient's trousers. The box of matches gave an intensely positive reaction; the nylon test was negative.

Case 4. Standard patch tests were carried out as before, with negative results. Specific soap tests were also negative as in Case 1. A patch test with the striker part of the box of matches was positive. When contact with this source was avoided, the lesions healed in a relatively short time.

Discussion

The interest and importance of these cases lies in the possibility of confusion between lesions caused by specific contact-type allergies and the lymphoreticular lesions of mycosis fungoides. These lesions might also fit those lymphomatoid reactions caused by insect bites (Allen 1948), lymphomatoid papulosis or, as recently described by Ackerman (1975), spongiosis lesions similar to mycosis fungoides. The only way to distinguish them (apart from patch tests), since the histology is so similar, is by a careful history and clinical control.

Our observations were made in 1973 and reported in 1974, before those of Ackerman. However, we feel they are completely overlapping and complementary.

This entity is another example of the dissociation between the histopathologic and clinical features and the pathogenesis of the process, and also its significance. These are processes of a benign nature, which, due to their manifestations, may be erroneously interpreted as being much more serious.

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