CASE REPORTS

PERILESIONAL LEUCODERMA IN LICHEN PLANUS

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An adult male developed a halo of leucoderma around a plaque of lichen planus on the leg. Development of perilesional leucoderma was followed by spontaneous regression of the central lesion of lichen planus. An autoimmune mechanism is suggested in the pathogenesis of both lichen planus and vitiligo.

Key words : Lichen planus, Leucoderma acquisitum centrifugam.

Leucoderma acquisitum centrifugum is a skin lesion in which a centrally placed skin lesion is surrounded by an acquired zone of depigmentation.[1] Usually, the central tumour is a nevus cell nevus and so halo nevus has been used as an alternate term. But similar phenomenon can occur around various other skin lesions like neurofibroma, blue nevi, neuronevi, vascular nevi, seborrhoeic keratoses, psoriasis and papular sarcoid.[1,2] It has also been reported to occur around the distant cutaneous metastases of carcinoma and malignant melanoma.[3] We report a case in which a halo of leucoderma developed around a plaque of lichen planus on the leg. After the development of leukoderma the central lesion of lichen planus showed spontaneous regression.

Case Report

Four months ago, a 34-year-old male developed three pruritic plaques on the right leg. Since 2 months, he noticed a halo of depigmentation developing around one of these plaques. Along with the increase in the intensity and extension of the perilesional leucodermic halo, the central violaceous plaque flattened. There was no history of application of corticosteroid ointment locally and none in his family suffered from vitiligo.

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Examination revealed 3 well-defined, violaceous circular plaques measuring 1.5 to 2.5 cm in diameter on the right leg. The surface of the plaques showed Wickham's striae. One plaque on the lateral aspect of the leg showed a 2 cm wide zone of depigmentation surrounding it. There were no skin or mucous membrane lesions elsewhere on the body. He was asked to apply only coconut oil locally. When seen after 3 weeks the intensity of depigmentation of the skin had increased and there was flattening of the central plaque; its borders becoming less distinct (Fig. 1). Other plaques remained unchan-

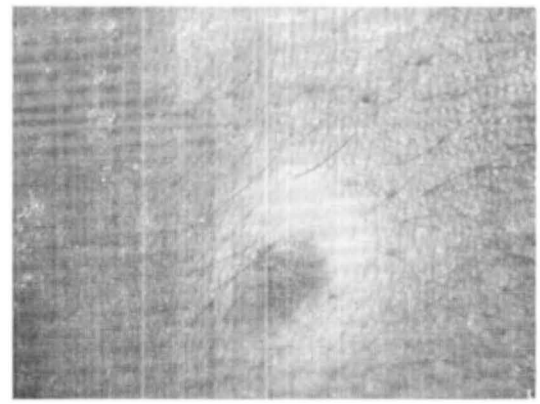

Fig. 1. Halo of leucoderma around a plaque of lichen planus on the leg. The central lesion of lichen planus showed regression, after the leucoderma.

ged. Routine laboratory tests on blood, urine and stools were normal. Histopathological study of the biopsy specimen taken from the edge of the central plaque showed hyperkeratosis, hypergranulosis, basal cell degeneration, saw-toothing of the rete and a band of lymphocytic infiltrate in the upper dermis hugging the epidermis. There were no nevus cells in the epidermis or dermis. A few melanophages were seen in the upper dermis. He was prescribed only oral antihistamine and when seen after 3 months the central lesion of lichen planus had completely disappeared leaving only a circular depigmented patch. The other plaques remained unchanged and were later treated with topical corticosteroid.

Comments

The skin lesions of lichen planus usually heal with hyperpigmentation. The development of perilesional leucoderma in lichen planus is very rare, though Robinson has mentioned its occurrence in lichen planus.[2] The exact mechanism of development of this depigmented halo and subsequent regression of the central lesion of lichen planus is not known. Similar phenomenon occurs in Sutton's nevus in which immunologic mechanisms—both humoral and cell mediated, have been reported to play some pathogenic role. The cause of lichen planus is still a subject for debate. Recent immunological, histopathological and fluorescent studies favour the immune nature of lichen planus.[4-6] Recently, Aloi et al[7] reported a case of lichen planus in an elderly male who had associated skin lesions of vitiligo and alopecia areata and suggested a common autoimmune pathogenesis for each one of these 3 diseases. Our patient's skin lesion behaved quite similar to what occurs in Sutton's nevus. Since benign nevus can disappear following the occurrence of leucoderma in the halo nevus phenomenon, the possibility exists that there is a similar mechanism responsible for the destruction of the plaque of lichen planus in our case.

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