Lichen planus pigmentosus-like ashy dermatosis

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Abstract

Ashy dermatosis, also known as erythema dyschromicum perstans, is an idiopathic dermal melanosis of unknown etiology. We here describe an unusual case of 63-year-old Caucasian male with ashy dermatosis and skin lesion of lichen pigmentosus-like. No treatment was tried because the lesions were totally asymptomatic. After a control, three months later, all lesions had cleared up. This case is of interest because it proves the existence of ashy dermatosis with clinical aspect lichen planus pigmentosus-like. This is the first case in the literature of lichen planus pigmentosus-like ashy dermatosis confirming the view that ashy dermatosis is a variant of lichen planus without the typically band-like infiltrate and Max Joseph spaces.

Introduction

Ashy dermatosis, also known as erythema dyschromicum perstans, is an idiopathic dermal melanosis of unknown etiology, but probably with an immunologic basis. Both sexes are affected with predilection for women. Ashy dermatosis was first described by Ramirez in El Salvador in 1957.[1] It is characterized by asymptomatic blue-grey pigment patches with or without erythematous borders most commonly located on the face, neck, trunk and upper limbs, but can affect any region of the body. Ashy dermatosis typically occurs in the second decade of life and generally affects subjects with type IV skin; in fact, it has been described mainly in patients from tropical areas of Central and South America.

The diagnosis is clinical and confirmed by histopathologic findings. No treatment of choice is presently available. A number of treatment modalities have been attempted, but all with uncertain responses.[2-3]

Case Report

A 63-year-old Caucasian male with fototype III was admitted to our Department of Dermatology because of irregular, oval or round dark-brown macules with central resolution symmetrically appeared in both armpits. These lesions, about 0.5-3 cm in size, were asymptomatic. The skin around the armpit was red by initial exposure to the sun (Figure 1). Moreover classic gray-blue macules were present on the lumbar region with a size of 0.6-2 cm (Figure 2). Mucosal surfaces had not been involved. The patient did not use antiperspirants or deodorants.

Concomitant diseases were type 2 diabetes, dyslipidemia, hypertension, coronary ischemic disease with two angioplasties, supra-ventricular extrasystoles, obstructive arteriopathy with intermittent claudication. The patient was in treatment with bisoprolol fumarate (1,25 mg/day), acetylsalicylic acid (100 mg/day), ticlopidine (250 mg/day), fenofibrate (145 mg/day), glibenclamide + metformin (5 mg + 500 mg/day), dipeptidylpeptidase[4] inhibitor (50 mg×2/day), irbesartan (150 mg/day), and pantoprazole(20 mg/day). Laboratory examinations, except glycemia, glycosylated hemoglobin, cholesterol and triglycerides, were within normal values. A skin biopsy of a lesion from right armpit was performed and histology was suggestive for ashy dermatosis (Figure 3).

No treatment was tried because the lesions were totally asymptomatic. On the contrary, the basic treatment for internal disorders had not been changed. At a control, three months later, all lesions had cleared up (Figures 4 and 5).

The patient recovered without discontinuation of exposure to the sun, also the following summer after the sun exposure has not been resubmitted to the skin disease.

Discussion

Ashy dermatosis is a relatively rare skin disease, included in the group of acquired idiopathic hypermelanosis.

The etiology of the disease is not known though it has been associated with the ingestion of ammonium nitrate, exposure to environmental contaminants, pollutants, worm infestation, endocrinopathy (hypothyroidism, diabetes mellitus), atopy, dyslipidemia. A number of immunopathological studies of active lesions have shown that ashy dermatosis may involve immune mediation. It has been postulated that damage to melanocytes and basal layer keratinocytes results from an abnormal immune response to antigens.

The drugs taken by our patient for the underlying conditions have never been suspended or changed until healed, so can not be

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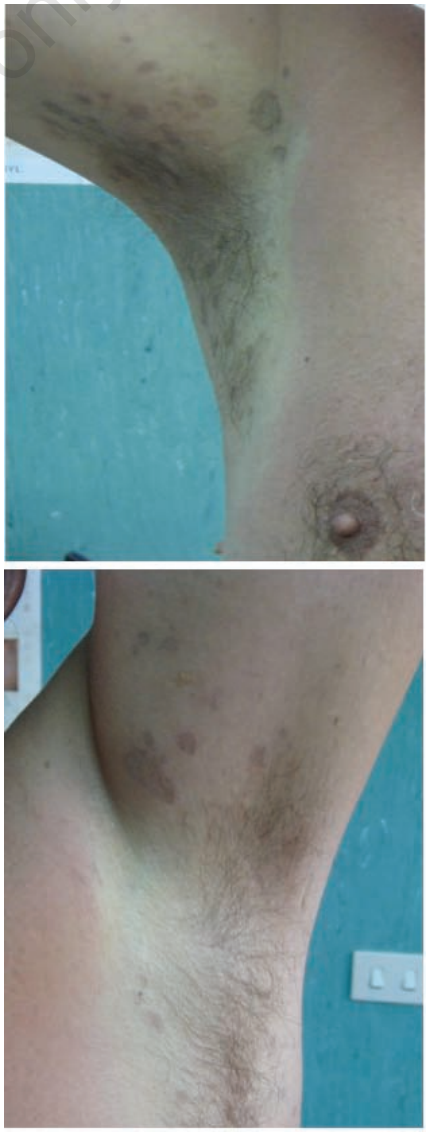

Figure 1. Dark-brown macules with central resolution in both armpits.

responsible for the ashy dermatosis.

The histopathology of ashy dermatosis is not pathognomonic. The active lesions show vacuolar degeneration of the basal cells, and pigmentary incontinence with many melanophages in the upper dermis. Dermal blood vessels are surrounded by an infiltrate of lymphocytes and histiocytes. In the residual macules, the incontinence of pigment predominates, whereas the cellular infiltrate and vacuolar degeneration of the basal cell layer may range from minimal to intense.

Differential diagnosis includes lichen planus pigmentosus, the pigmented macules of the late pinta, post-inflammatory pigmentation, figurate erythemas, pityriasis rosea, multiple fixed drug eruption, hemochromatosis, Addison's disease, melasma, leprosy, idiopathic eruptive macular pigmentation, macular amiloidosis, confluent and reticulated papillomatosis of Gougerot and Carteaud. The most frequent cause of confusion and controversy is with lichen planus pigmentosus, which is characterized by hyperpigmented dark-brown macules with a non-characteristic distribution over predominates in exposed areas and flexural folds. Its course is characterized by exacerbations and remissions, occasionally accompanied by pruritus.[3-5] In both lichen planus and ashy dermatosis, there are melanophages and vacuolization of the basement membrane zone (BMZ). Max-Joseph spaces, although not observed in all cases of lichen planus, are absent in ashy dermatosis. In ashy dermatosis a perivascular infiltrate is often present, in contrast with the typically band-like infiltrate in lichen planus. The immunopathology of ashy dermatosis and lichen planus are similar including populations of helper/inducer (CD4+), cytotoxic (CD8+) T cells and epidermal keratinocytes expressing HLA-DR+. Opinions vary about whether ashy dermatosis is an abortive form of lichen planus or a distinct entity.[6-8]

The our case showed axillary lesions with typical clinical appearance of lichen planus pigmentosum but with ashy dermatosis suggestive histological examination, because it lacks the typical band-like infiltrate and the Max Joseph-spaces. The diagnosis is further confirmed by the coexistence of lesions in the lumbar region with a typical clinical appearance of ashy dermatosis.

This case is of interest because it prove the existence of ashy dermatosis with clinical aspect evoking lichen planus pigmentosus.

This is the first case in the literature of lichen planus pigmentosus-like ashy dermatosis confirming the view that ashy dermatosis is a variant of lichen planus without the typically band-like infiltrate and Max Joseph spaces.

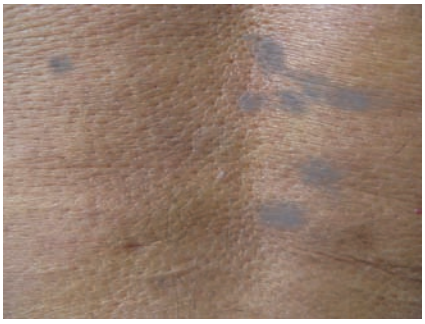

Figure 2. Typical gray-blue lesions of the ashy dermatosis on the lumbar region.

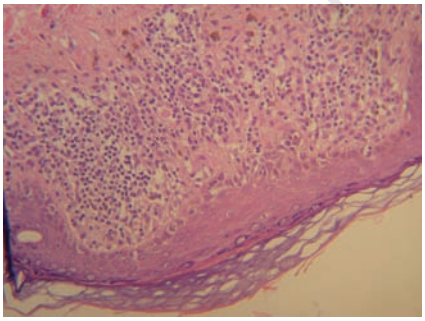

Figure 3. Photomicrograph of histology of skin biopsy. Epidermis shows basket hyperkeratosis and vacuolar alteration of the basal layer. Perivascular band-like lymphomonocytoid infiltrates are present in the papillary dermis. Melanophages are intermingled with lymphocytes in middle-deep dermis (Hematoxylin and Eosin x200).

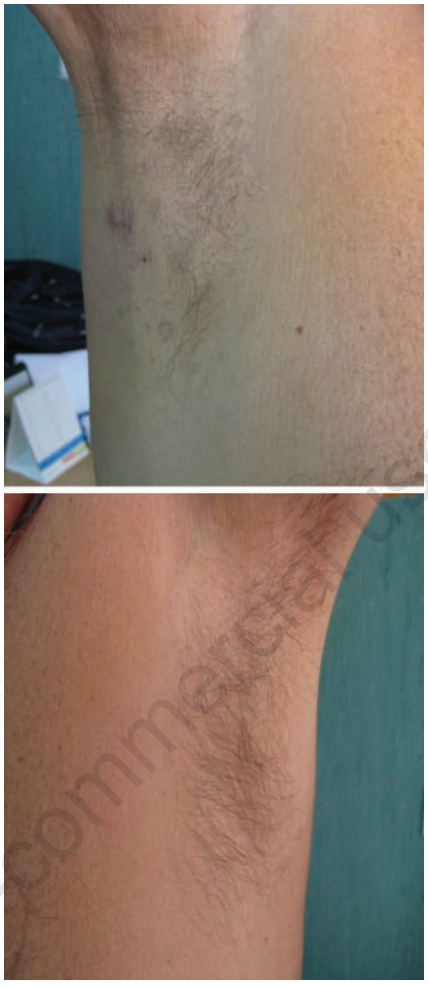

Figure 4. Almost complete clearing up of the macules in both armpits three months later. Scar lesion ensued from biopsy the right armpit.

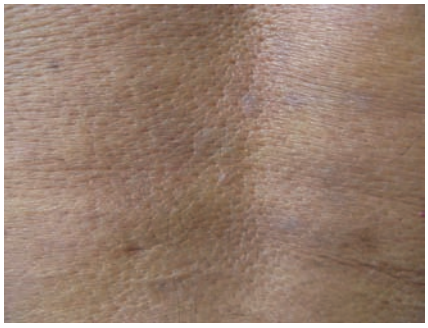

Figure 5. Almost complete clearing up of the macules on the lumbar region three months later.

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