Hyperpigmented Axillary Papules

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Clinical History and Physical Examination

The patient was a 42-year-old woman with a body mass index within the normal range and in whom the only past medical history or interest was mild hypercholesterolemia on dietary treatment. Since adolescence, she presented multiple brown papules of polygonal appearance that became confluent, forming plaques, and that were located predominantly in the axillae and, less frequently, on the thorax. Some of the axillary lesions took on a pedunculated, papillomatous appearance (Figure 1). The patient denied any family history of similar conditions.

Histopathology

A punch biopsy of the axillary region was performed for histopathological study, staining with hematoxylin-eosin (Figure 2), periodic acid-Schiff (PAS), and Congo red. The histological findings included papillomatosis, orthokeratotic hyperkeratosis and epidermal acanthosis, focal atrophy of the granular layer, and mild hyperpigmentation of the basal layer of the epidermis. There was a moderate dilatation of the superficial blood vessels in the dermis. PAS staining did not reveal the presence of fungal elements and staining with Congo red was negative.

What Was the Diagnosis?
Diagnosis

Confluent and reticulated papillomatosis of Gougerot and Carteaud.

Treatment

The patient refused oral treatment as the condition was asymptomatic. She was treated with topical calcipotriol applied once daily for 6 months, showing a slight improvement.

Discussion

Confluent and reticulated papillomatosis was first described by Gougerot and Carteaud in 1927. The cause is not known with any certainty, though a number of theories have been proposed: endocrine disturbances; an abnormal response to *Pityrosporum orbiculare*; a variant of cutaneous amyloidosis or acanthosis nigricans; and a genetic defect of keratinization. This latter possibility appears to be the most widely accepted and is based on the therapeutic success achieved in some cases with retinoids or vitamin D derivatives.

It is usually sporadic, although familial cases have been reported; it is more common in women and in blacks. Onset occurs during puberty and it arises predominantly in the midline of the trunk, in the intermammary, epigastric and interscapular regions, and less frequently on the shoulders, neck, back, face, and genital and axillary regions.

Initially it presents as papules of 1 to 2 mm that progressively increase in size to reach 4 to 5 mm and become hyperkeratotic and verrucous; they may become hyperpigmented, particularly in dark-skinned individuals. In central areas they become confluent, forming plaques, whereas peripherally they take on a reticulated pattern. The condition is usually asymptomatic, but occasionally causes pruritus.

Histological study demonstrates hyperkeratosis, papillomatosis, thinning of the granular layer, and acanthosis. Other possible findings include an increase in the melanin content of the melanocytes of the basal layer, moderate dilatation of the superficial dermal blood vessels, and a mild perivascular lymphocytic infiltrate. Cases of confluent and reticulated papillomatosis without papillomatosis have been reported.

The differential diagnosis of this disease should include acanthosis nigricans, Dowling-Degos disease, cutaneous amyloidosis, pityriasis versicolor, epidermal nevus, ichthyosis, Darier disease, seborrheic keratosis, seborrheic dermatitis, and photodermatitis.

Treatment is frustrating because the patient does not always respond and, when there is a response, recurrence usually occurs on treatment withdrawal. The oral retinoids and minocycline appear to be the most effective drugs. Transient improvements have been reported with other treatments such as certain oral antibiotics (azithromycin, doxycycline, erythromycin), topical salicylic acid, topical retinoids, urea, hydroquinone, antifungal agents, 5-fluourouracil, calcipotriol, and tacalcitol.

Conflicts of Interests

The authors declare no conflicts of interest

References