Giant Dermatofibroma Appearing During Pregnancy

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Sir,

Dermatofibroma (DF) is a common benign fibrohistiocytic neoplasm that usually occurs in mid-adult life and shows a slight female predominance. DF may represent a dermal response to a local injury such as an insect bite, rupture of a follicle or a follicular cyst and typically appears as a slow-growing, firm solitary papule, more rarely a plaque or nodule, preferentially located on the lower extremities. The colour varies from light brown to dark brown, red, purple or yellow, and the surface may be shiny or keratotic. DF is often asymptomatic, although pruritus and/or ulceration following trauma may be present. On palpation, the lesion is freely movable over deeper tissues, and lateral compression produces a dimple-like depression in the overlying skin. Several uncommon clinical variants of DF have been reported, including giant DF (1) and multiple DF (2).

The prototypic dermoscopic pattern of DF is a central white scar-like patch surrounded by a delicate light brown pigment network in an annular distribution or by a diffuse light brown pigmentation (3). We report herein the case of a young woman with an unusual clinical and dermoscopic presentation of giant DF characterized by a rapid growth during pregnancy.

CASE REPORT

A 29-year-old woman presented with dark brown papules and nodules overlying a light brown plaque, measuring 4.7×5.4 cm, which was located on the right lumbar region (Fig. 1). The patient reported that the plaque had appeared during the 16th week of pregnancy, with papules and nodules appearing during the second month of the puerperium. The lesion was occasionally painful. The patient was otherwise healthy and denied any trauma or injection at the lesion site.

Dermoscopic analysis of the plaque and papules showed a diffuse light to dark brown homogeneous pigmentation in the absence of other criteria. The clinical diagnosis of common melanocytic naevus (Clark naevus) was made. However, the lesion was surgically excised on the basis of the recent changes and at the patient's request.

Histopathologic examination showed aggregates of spindle-shaped fibroblasts between thickened collagen bundles located in the whole dermis, and a slight hyperpigmentation of the basal layer of the epidermis (Fig. 2). Immunohistochemical staining of fibrohistiocytic cells was positive for factor XIIIa and negative for CD34 (results not shown). Histopathologic features allowed us to establish the diagnosis of DF. After a follow-up period of 5 years, we observed no recurrence at the incision site and no additional DF.

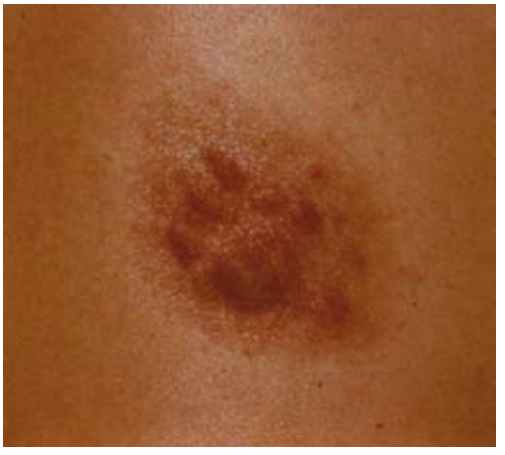

Fig. 1. A brown plaque (about 5 cm in diameter) with papulo-nodular lesions, located on the right lumbar region.

DISCUSSION

Giant DF, defined as a DF larger than 5 cm in diameter, most commonly appears on the legs, with an exophytic appearance (1). The case presented here is a giant DF appearing during pregnancy with unusual clinical and dermoscopic features. To our knowledge the development and rapid growth of a giant DF during pregnancy has never been reported. Stainforth & Goodfield (4) described multiple DFs in a healthy 25-year-old woman

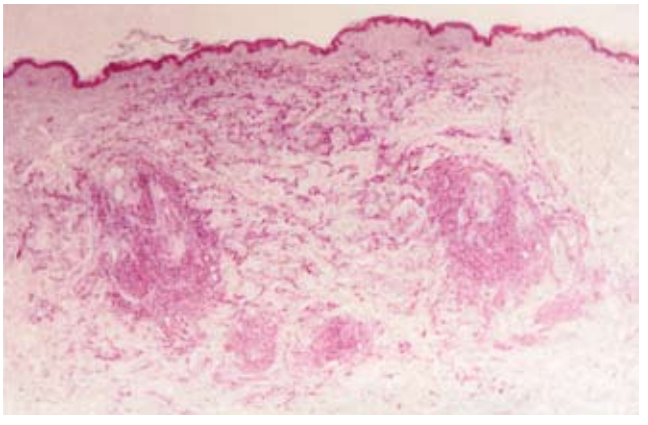

Fig. 2. The infiltrate is composed of aggregates of spindle-shaped fibroblasts between thickened collagen bundles, located in the whole dermis (H&E, original magnification, ×5).

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during pregnancy, suggesting that pregnancy may modify the maternal immune system through a non-specific local immunosuppression. Multiple eruptive DFs have indeed been described in patients with autoimmune disorders, human immunodeficiency virus infection and patients receiving immunosuppressive therapy (2).

In addition to the typical dermoscopic criteria of DF such as the central white scar-like patch surrounded by a pigment network or a diffuse light brown pigmentation, less frequent features of DF include the presence of several brown to black dots/globules within the central white scar-like patch and/or a reddish colouration around the central white area (3). A dotted vascular pattern in the absence of any pigmented structure has recently been reported in two cases of DF (5). In our patient, all the above-mentioned dermoscopic features of DF were absent, whereas a diffuse light to dark brown pigmentation was observed and was highly suggestive of Clark naevus.

Histopathologic characteristic features of DF comprise the presence of an ill-defined dermal lesion composed of fibrocytes, sometimes in a focal storiform arrangement, embedded in a collagenous stroma or, less often, in a myxoid stroma (6). The overlying epidermis is usually acanthotic and may show pseudoepitheliomatous hyperplasia and hyperpigmentation at the periphery. A grenz zone of papillary dermal sparing is common. Foamy histiocytes, multinucleated giant cells and thin-walled blood vessels may be scattered between spindle cells. In our case, histopathologic examination was essential to establish the diagnosis of DF, showing scattered fascicles of fibroblasts between thickened collagen bundles in the whole dermis. Immunohistochemical staining revealed positivity of fibrohistiocytic cells for factor XIIIa and negativity for CD34, ruling out the diagnosis of dermatofibrosarcoma protuberans.

Our report highlights an unusual clinical and dermoscopic appearance of giant DF characterized by a rapid growth during pregnancy, a rare event whose pathogenesis is still not understood.

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