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Letter

Terra firma-forme dermatosis: Case Series and dermoscopic features

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Abstract

Terra firma-forme dermatosis (TFFD) is characterized by dirt-like skin lesions that disappear after rubbing with alcohol. We describe the dermoscopic features of TFFD before and after alcohol swabbing in six patients. All patients showed similar dermoscopic appearance with large polygonal plate-like brown scales arranged together giving a mosaic pattern. These features disappear completely after isopropyl alcohol swabbing of the lesions. In conclusion dermoscopy can assist in the evaluation of terra firma-forme dermatosis and the dermoscopic evaluation of other dirty dermatoses is recommended in the future to compare findings with TFFD.

Keywords: Terra firma-forme dermatosis, dirty dermatoses, Dermoscopy

Introduction

Terra firma-forme dermatosis (TFFD) is a benign condition whose name derives from the Latin phrase "*terra firma*," which means dry land [1].

TFFD appears as a type of skin discoloration resembling dirt resistant to water and soap [2]. This brown, asymptomatic plaque can easily be removed with gentle alcohol swabbing [1,3]. TFFD is under-reported in the dermatology literature but may be more common among general population [1]. The histology of TFFD shows epidermal acanthosis with papillomatosis; the prominent lamellar hyperkeratosis is characteristic showing a tendency to form compact orthokeratotic whorls [1,4].

Patients and Methods

This is case series included six patients with TFFD. They were recruited from the dermatology outpatient clinic of Mansoura University Hospital after giving informed consent. The diagnosis of TFFD was based on clinical presentation of asymptomatic brown to blackish areas with a velvety texture, not removable by washing with water and/or soaps but removed with gentle isopropyl alcohol (70%) swabbing. All patients in this report had normal washing habits. Direct microscopy and culture examination revealed resident flora. A KOH mount was negative. The demographic and clinical features of studied patients are

summarized in Table 1. Written informed consent was obtained from the patients after the study protocol was approved by the local hospital ethical committee.

Table 1. Demographic data, and clinical features of studied patients

Patient	Sex	Age (years)	Site of lesion	Duration of lesion (months)	Comorbidity	Previous treatment
1	M	19	Back of the neck	48	No	No
2	F	13	Abdomen	7	No	No
3	F	20	Face	18	No	Topical retinoid
4	F	17	Chin and the forehead	2	No	Topical steroid
5	F	17	Arms	12	No	No
6	F	18	Neck, shoulders, chest and abdomen	10	No	Topical retinoid

All recruited patients had no significant medical history. Three patients were previously treated with topical retinoid (patients number 3 and 6) and topical steroid (patient number 4) without improvement of skin lesions. All patients were subjected to dermoscopic examination before and after alcohol swabbing

Results

Upon dermoscopy evaluation, all patients showed a similar dermoscopic appearance with large polygonal plate-like brown scales arranged together giving a mosaic pattern or tile-like pattern that was interrupted in furrows. These features disappeared completely after isopropyl alcohol swabbing of the lesions (Figures 1–3).

Figure 1(a,b,c,d). Patient 1: Terra firma-forme dermatosis (TFFD) on the nape (a). Removal of the lesion after alcohol swabbing (b). Dermoscopic examination of the lesion reveals large polygonal plate-like brown scales arranged together in a mosaic pattern (c). Dermoscopy of the lesion after alcohol swabbing (d).

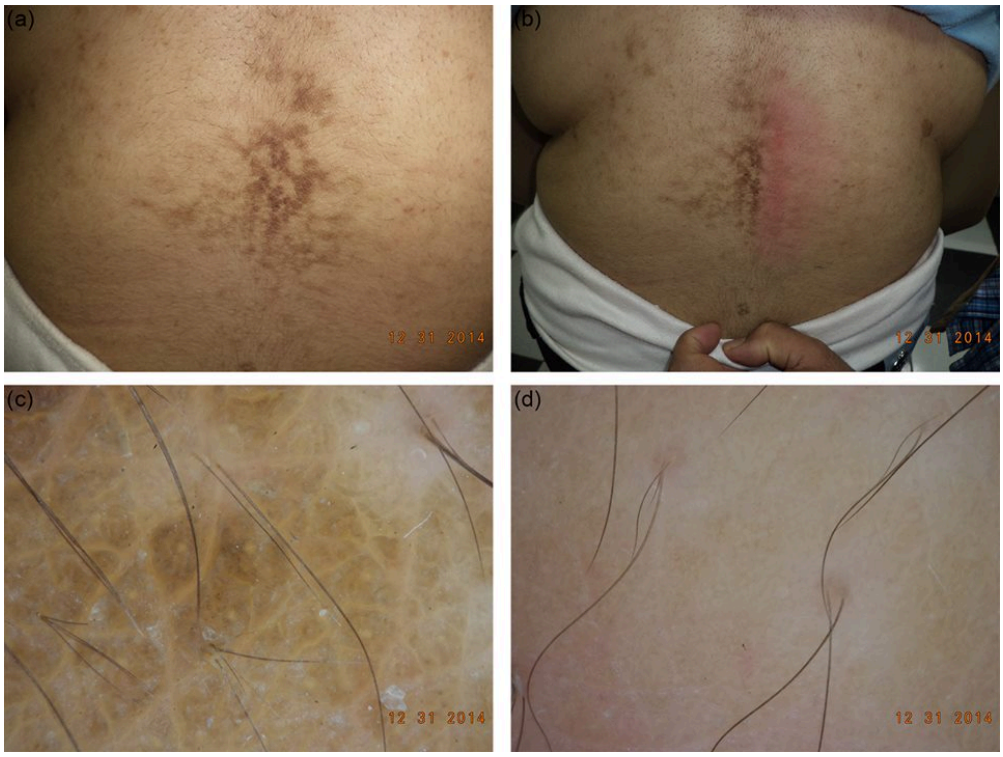

Figure 2 (a,b,c,d). Patient 2: TFFD on the back(a). After alcohol swabbing (b). Dermoscopic examination of the lesion before (c) and after alcohol swabbing (d).

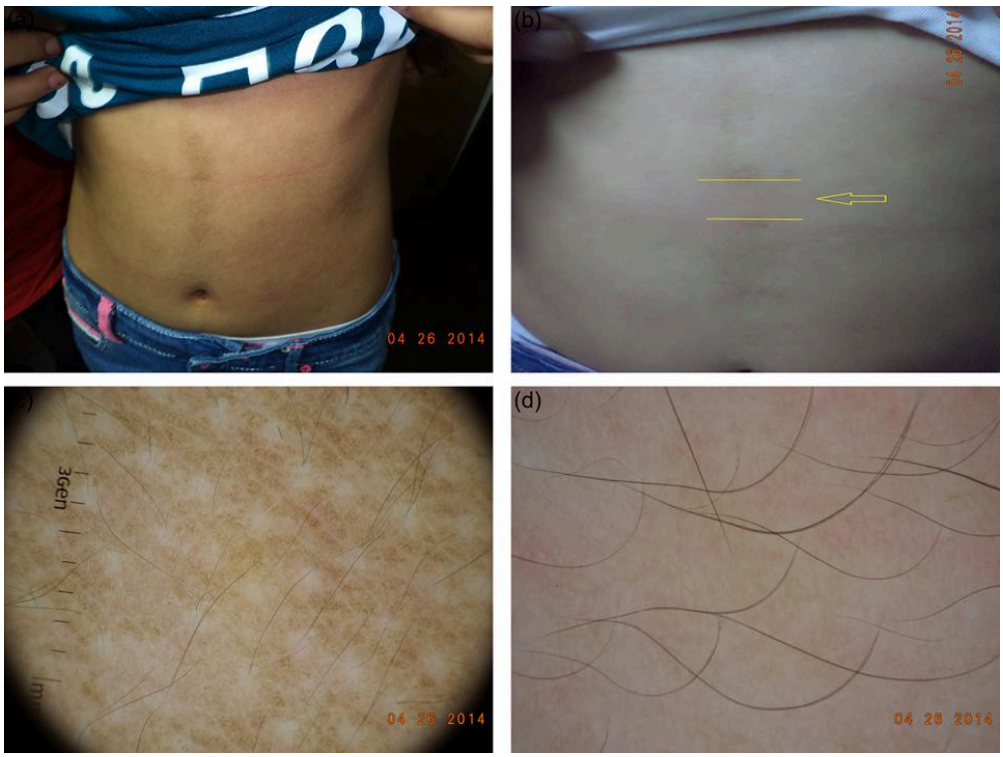

Figure 3(a,b,c,d). Patient 6: TFFD on the abdomen(a). After alcohol swabbing (b). Dermoscopic examination of the lesion before (c) and after alcohol swabbing (d).

Discussion

Terra firma-forme dermatosis is relatively common and most often occurs in children on the neck or posterior malleolus [5], with an equal incidence in both sexes [2]. Dermoscopy is a noninvasive tool that helps with visualization of morphologic features usually imperceptible to the naked eye [6].

The dermoscopic appearance of all studied patients revealed similar findings, with large polygonal plate-like brown scales arranged together giving a mosaic pattern or tile-like pattern interrupted in furrows. These features disappeared completely after alcohol swabbing of the lesions.

TFFD is distinguished from dermatosis neglecta bya history of good hygienic measures, absence of cornflake-like brownish scales, and successful disappearance of pigmentation with isopropyl alcohol in the former and adequate clearance of lesions with soap and water in the latter. However, isopropyl alcohol is operative in both disorders [7]. Other conditions in the differential diagnosis include confluent and reticulated papillomatosis of Gougerot and Carteaud that is characterized by a velvety appearance and is commonly associated with *Pityrosporon orbiculare*. The central trunk is the main affected site and is not related to cleansing. Confluent and reticulated papillomatosis has a negative alcohol swab test. Other conditions in the differential diagnosis include verrucous nevi, acanthosis nigricans, Vagabond's disease, hyperkeratotic *Malassezia* infection [8], dirty neck syndrome of atopic dermatitis [7], epidermolytic hyperkeratosis of the nipple and areola, frictional asymptomatic darkening of the extensor surfaces [9], idiopathic deciduous skin [10] and postinflammatory hyperpigmentation [8]. To the best of our knowledge there is no literature describing dermoscopic appearances of these diseases.

In conclusion, dermoscopy can assist in the evaluation of terra firma-forme dermatosis and the dermoscopic evaluation of other dirty dermatoses is recommended in the future to compare findings with TFFD

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