

Dirt-Like Hyperpigmented Plaques on the Neck and *Linea Alba* of a 12-Year-Old Girl

Pablo Fernández-Crehuet¹ and *Ricardo Ruiz-Villaverde²

لوحات صبغية مثل التراب على الرقبة والخط الأبيض لفتاه عمرها اثني عشر عاما

پابلو فرنانديز-كريهيو و ريكاردو رويز فيلافيردي

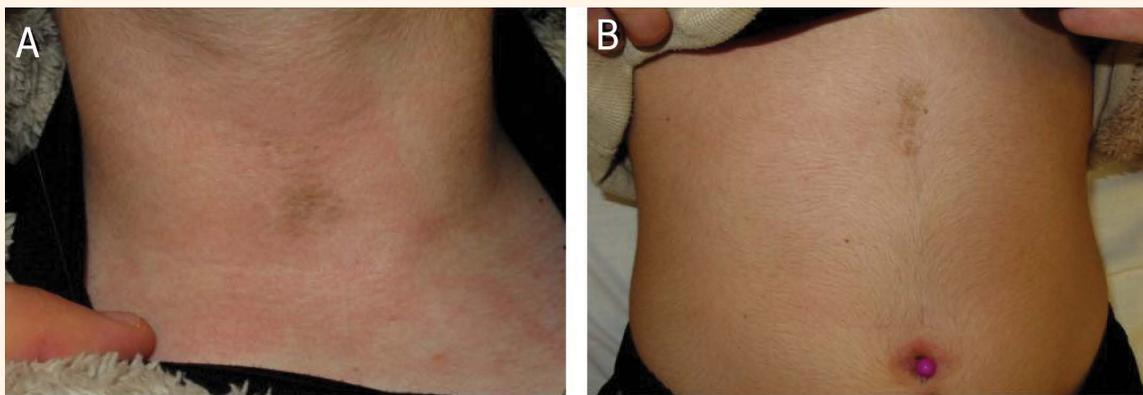


Figure 1A & B: Photographs showing asymptomatic dirt-like hyperpigmented plaques on the (A) neck and (B) *linea alba* of a 12-year-old girl.

A 12-YEAR-OLD GIRL WAS REFERRED TO THE outpatient dermatology department at the Hospital Alto Guadalquivir, Andújar, Spain, in April 2015 with a five-month history of asymptomatic dirt-like hyperpigmented plaques on her neck and *linea alba* [Figure 1]. The patient had been previously treated with adapalene 0.1% cream twice a day for one month after the eruption was diagnosed as pseudoacanthosis *nigricans* by a general paediatrician. However, no response to treatment was observed. Diabetes mellitus and insulin resistance were ruled out as causative factors and the patient's medical history was unremarkable. A dermoscopic examination using the Dermlite DL3 (3 Gen Inc, San Juan Capistrano, California, USA) revealed polygonal areas of brownish pigmentation affecting the dermatoglyphs [Figure 2]. Complete and immediate resolution of the plaques was noted after firm rubbing with a 70% isopropyl alcohol swab [Figure 3].

Comment

Terra firma-forme dermatosis (TFFD), also known as Duncan's dirty dermatosis, has a distinctive clinical presentation as it generally appears as an eruption of dirt-like hyperpigmented brown plaques. TFFD is relatively common and usually occurs on the neck or posterior *malleolus* of children and young adults.¹ There is currently some debate as to whether TFFD and dermatosis *neglecta* are the same entity; however, patients with TFFD generally have satisfactory hygiene habits, whereas dermatosis *neglecta* usually results from inadequate cleansing.² Delay in the maturation of keratinocytes—with melanin retention and a sustained accumulation of sebum, sweat and corneocytes in areas of the body where hygiene measures may be less rigorous—might explain the appearance of TFFD. Vigorous but unsuccessful attempts at cleaning the affected areas have previously been described in the literature.² Pathological examination of the plaques

¹Department of Dermatology, Hospital Alto Guadalquivir, Andújar, Jaén, Spain; ²Department of Dermatology, Complejo Hospitalario de Granada, Granada, Spain

*Corresponding Author e-mail: ismenios@hotmail.com

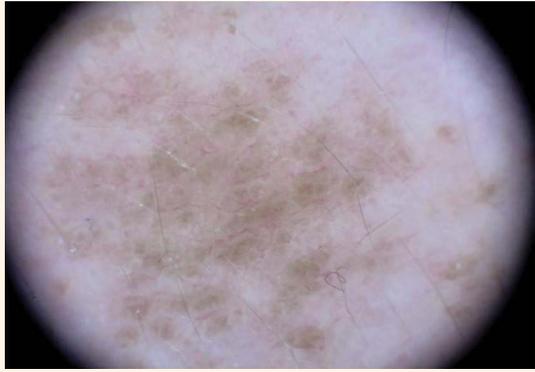


Figure 2: Dermoscopic image at x10 magnification showing polygonal areas of brownish pigmentation affecting the dermatoglyphs of a 12-year-old girl with asymptomatic dirt-like hyperpigmented plaques on her neck and *linea alba*.

is not usually necessary unless another condition is suspected. In cases of TFFD, lamellar orthokeratotic hyperkeratosis and intra-corneal orthokeratotic whorls may be observed and dermoscopic examination will show a 'stone pavement' pattern characterised by polygonal areas of brownish pigmentation.³ In addition, endocrinological evaluation should be performed to rule out skin diseases associated with insulin resistance, such as acanthosis *nigricans*.⁴

The differential diagnosis of TFFD includes acanthosis *nigricans*, confluent and reticular papillomatosis, *tinea versicolor*, 'dirty neck' lesions of atopic dermatitis, epidermal *naevi*, epidermolytic hyperkeratosis, granular parakeratosis and *ichthyosis vulgaris*.^{5,6} Treatment for these conditions is similar to that prescribed for TFFD—swabbing with 70%

ethyl or isopropyl alcohol—although salicylic acid-based exfoliants or other keratolytic agents are sometimes recommended to accelerate normalisation of the skin.⁷ Unfortunately, topical corticosteroids, antimycotics and retinoids are sometimes prescribed inappropriately for cases of TFFD.⁸ Physicians should therefore be aware of this entity to avoid performing unnecessary skin biopsies and to ensure that they prescribe appropriate treatment.

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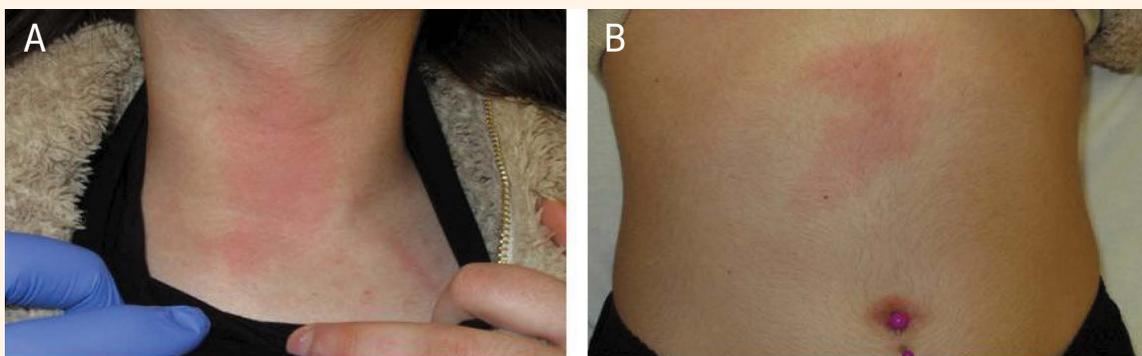


Figure 3A & B: Photographs of the (A) neck and (B) *linea alba* of a 12-year-old girl showing the complete resolution of asymptomatic dirt-like hyperpigmented plaques after firm rubbing with a 70% isopropyl alcohol swab.