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CASE REPORT

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Terra firma-forme dermatosis: Two cases

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Abstract

Terra firma-forme dermatosis is a dermatosis with unknown etiology which causes dirt-like colour changes on the skin. It is frequently seen in children and adolescents. Its clinical emergence is in the form of gray-brown, mildly papillomatous, pigmented plaques especially on the face, neck, trunk and ankles. Lesions can't be cleaned by water and soap; they can only be cleaned by rubbing with isopropyl alcohol or ethyl alcohol. In this study, two cases with terra firma-forme dermatosis were defined and the subject was reviewed in the light of literature.

Keywords: Dermatosis, terra firma-forme, Duncan's dirty dermatosis, isopropyl alcohol

Introduction

Terra firma-forme dermatosis (TFFD) is a dermatosis with unknown aetiology, which causes dirt-like color changes on the skin [1]. While it is frequently seen in children and adolescents, there are cases of all ages in literature [2,3]. Its clinical emergence is in the form of gray-brown, mildly papillomatous, pigmented plaques especially on the face, neck, trunk and ankles and with less frequency on hairy skin, lips, belly button and extremities [1,4]. Lesions can't be cleaned by water and soap; they can only be cleaned by rubbing with isopropyl alcohol or ethyl alcohol [1,3].

This study presents two cases diagnosed with TFFD, which is rare but quite easy to treat once it is known.

Case Report

Case 1

A five-year-old girl referred to our outpatient clinic with her mother with complaints of non-healing spots on the arm and ankles. The mother said that the spot on the arm had been there for two years, while she had realized the ones on the legs recently. She stated that she tried lots of things to wash away dirt-like spots, but she could not clean them. Her dermatological examination showed gray-brown hyperpigmented plaque lesions with a diameter of 4-5 cm on the medial side of left forearm, which were not clearly demarcated. A similar lesion was found on medial sides of bilateral ankle (Figure 1). The lesions were found to disappear when cleaned by rubbing lightly with a sponge wet with 70% alcohol.

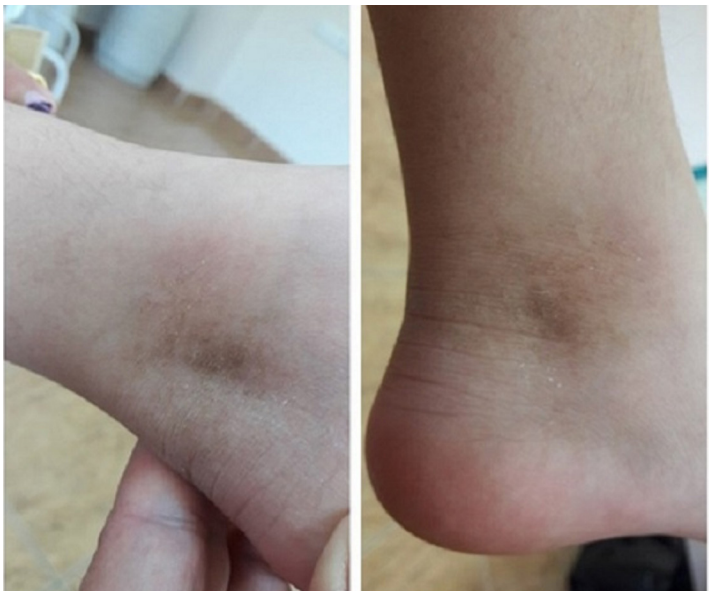

Figure 1. Gray-brown hyperpigmented plaque lesions on the medial sides of ankles

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Case 2

A seventeen-year-old female patient referred with intense brown spots on the face, neck and arm. The spots, which started on the face, a year ago had spread to other parts. The patient who did not have a complaint of itching stated that when she tried to make the spots which looked like dirt disappear by scrubbing, her skin was peeled but the spots never disappeared, instead they increased gradually. Her dermatological examination showed intense gray-brown hyperpigmented macular and plaque lesions on the forehead, cheeks, neck and medial side of left forearm which were not clearly demarcated (Figure 2) Cheek lesions reminded of melasma at first, however, the fact that the areas which did not receive the sun also had lesions brought TFFD to our mind. The lesions disappeared when cleaned by rubbing lightly with a sponge wet with 70% alcohol (Figure 3) and thus the diagnosis was made definitive.

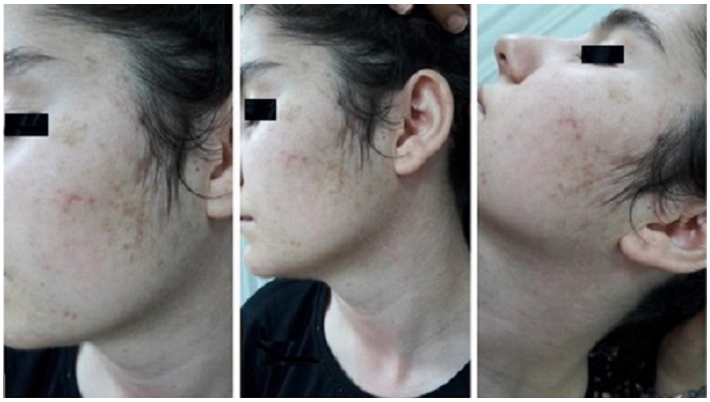

Figure 2. Intense gray-brown hyperpigmented macular and plaque lesions on the forehead, cheeks, neck

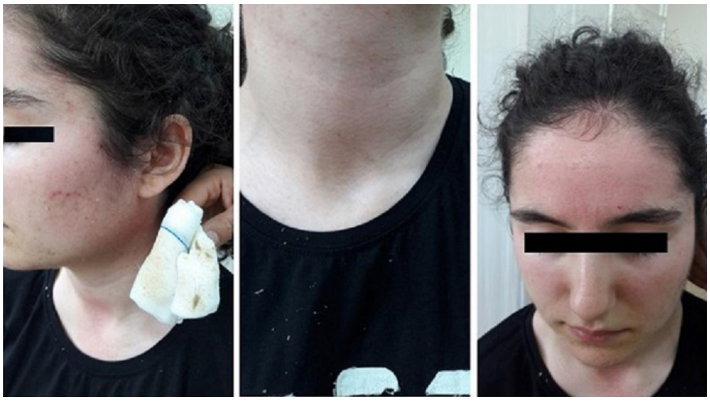

Figure 3. The lesions disappeared when cleaned by rubbing lightly with a sponge wet with 70% alcohol

Discussion

Terra firma-forme dermatosis was first defined by Duncan [1] in 1987 as "Duncan's dirty dermatosis". It is known that the disease, the etiology of which is not completely clear, is not associated with insufficient hygiene. Very few cases have been reported in literature [3,5]. Its frequency is thought to be more than its actual frequency since its clinical appearance can be mistaken for a great number of dermatological diseases which course with pigmentation increase such as acanthosis nigricans, confluent and reticulated papillomatosis, dermatitis neglecta, neurodermatitis and tinea versicolor and it can be misdiagnosed [1, 3-5].

While a great number of factors have been put forward etiologically such as familial transmission, genetic predisposition, exposure to sun and delayed or missing keratinisation disorder [2,6,7]. It has also been put forward to occur with the accumulation of sebum, sweat and microorganisms in addition to melanin retention due to deterioration in the keratinocyte aging of varicose plaques [8]. The fact that lesions were more intense on the areas of the face which received sun in our second case brings to mind that exposure to sun can be a factor which increases lesions.

When it is not thought of, unnecessary biopsies are made for diagnosis. Focal compact orthokeratosis was found with histopathologically lamellar hyperkeratosis, while increasing of melanin was found on basal layer and compact hyperkeratotic areas with Fontana-Masson staining [1]. In our cases, since TFFD diagnosis was brought to mind during first admission, diagnosis and treatment were made together.

Dermatitis neglecta is considered the most in definitive diagnosis. Unlike TFFD, cases with Dermatitis neglecta have hygiene disorder. The lesions can be cleaned with both water and soap and alcohol. In TFFD, they continue by becoming more obvious when not treated [5]. Before referring to invasive methods to make a diagnosis and to move away from diseases considered in definitive diagnosis, it is enough for the diagnosis to clean the lesion area with 70% isopropyl alcohol. In both of our cases, we confirmed out diagnosis by cleaning the area with sponge wet by 70% isopropyl alcohol.

Conclusion

As a conclusion, TFFD is rare; however, its treatment is quite easy when it comes to mind. In patients who refer with hyperpigmentation, TFFD should also be considered in definitive diagnosis. When met with a suspicious lesion, the lesion should be cleaned with 70% isopropyl alcohol to find out whether it is TFFD and unnecessary diagnostic methods and treatments should be avoided.

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