

Linear Terra Firma–Forme Dermatitis of the Midline Back

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PRACTICE POINTS

- Terra firma-forme dermatosis (TFFD) is an idiopathic condition characterized by asymptomatic hyperpigmented and hyperkeratotic plaques that are resistant to removal with soap and water.
- Diagnosis and cure of TFFD can be achieved through removal by rubbing with isopropyl alcohol.
- Increased awareness of the clinical presentation and treatment of TFFD may help patients avoid unnecessary treatment and workup and leads to immediate resolution of the condition.

Terra firma-forme dermatosis (TFFD) is a benign and likely underdiagnosed disorder with relatively few reports in the literature. A 46-year-old woman presented to our clinic with a 3-year history of linear TFFD extending from the upper sacrum to the midline upper back. It initially was thought to be acanthosis nigricans or lichen simplex chronicus, and a topical steroid cream was applied without success. The lesion ultimately was removed by rubbing with isopropyl alcohol, which confirmed a diagnosis of TFFD. Due to its ability to mimic other skin diseases, TFFD should be considered when patients present with hyperkeratotic hyperpigmented lesions.

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Terra firma-forme dermatosis (TFFD) was first described by Duncan et al,¹ in 1987 and is characterized by brown to black pigmented plaques on the skin that cannot be removed with soap and water but are easily wiped away with isopropyl alcohol. Since that publication, relatively few case reports and case series have been published. We present a case of linear TFFD on the midline back of a 46-year-old woman.

Case Report

A 46-year-old woman presented to our clinic for evaluation of a lesion on the back that had been present for 3 years. An initial diagnosis of acanthosis nigricans or lichen simplex chronicus was made and treatment with topical triamcinolone cream 0.1% was initiated. However, after 8 months of treatment, no improvement was observed and the patient returned to our clinic. Her medical history was notable for obesity, type 2 diabetes mellitus, and hypertension. The patient stated that she maintained good hygiene, including daily to twice-daily showers with soap. Physical examination revealed a linear, hyperkeratotic, dark-brown plaque on the midline back extending from the top of the sacrum to the upper back (Figure 1). No other areas of skin involvement were noted. The hyperpigmented scales were easily removed with an isopropyl alcohol swab, which confirmed a diagnosis of TFFD (Figure 2). The patient was given ammonium lactate lotion 12% to apply to the lesion once daily using an applicator stick if the lesion recurred. She reported some improvement during this treatment. She occasionally had recurrent lesions, which were removed with isopropyl alcohol on subsequent dermatology visits.

Comment

Terra firma-forme dermatosis is an idiopathic condition that, although benign, can cause notable distress to patients. It presents clinically as asymptomatic, brown or black, hyperpigmented, hyperkeratotic, verrucous, or papillomatous plaques or light scaling in some cases.¹⁻⁴ It can be readily cleared by rubbing with isopropyl alcohol but is resistant to ordinary soap and water.¹

Recent reports have shown that TFFD may be more common than once thought.⁴⁻⁶ Although commonly

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FIGURE 1. Linear terra firma–forme dermatosis presenting as a hyperkeratotic, dark-brown plaque on the midline back extending from the top of the sacrum to the upper back.



FIGURE 2. Linear terra firma–forme dermatosis. The lesion was removed by cleaning with an isopropyl alcohol swab.

observed in children, TFFD has been reported over a wide range of ages (4–86 years).^{2–5} The face, ankles, neck, and trunk are the most commonly affected areas.^{4,7,8} Areas that are less commonly affected often include surgical incision sites as well as the scalp, axillae, back, umbilical area, pubic area, arms, and legs.^{2–4,8,9} The lesions may be generalized or localized and are sometimes found to be symmetrical.^{4,10,11}

The exact etiology of TFFD is unknown but is believed to be due to melanin retention and alteration or a delay of keratinization that leads to the buildup and compaction of scales.^{1,2,12} Poor hygiene generally is considered

to exclude the diagnosis of TFFD in favor of dermatitis neglecta.^{6,12,13} Histopathology typically shows epidermal acanthosis, lamellar hyperkeratosis, and orthokeratotic whorls.^{3,7} However, biopsies seldom are performed due to the ease of diagnosis by removal by cleaning the lesion with isopropyl alcohol.

The diagnosis is confirmed by resolution of the rash after cleaning with isopropyl alcohol.¹ Further confirmation of this diagnosis can be achieved through dermoscopy, as large, polygonal, platelike, brown scales can be found arranged together giving a mosaic pattern.⁶ In addition to cleaning with isopropyl alcohol,^{5,8} other treatments have shown efficacy for more resistant cases of TFFD, including topical keratolytic agents (eg, lactic acid, urea lotion).^{4,14}

Conclusion

Terra firma–forme dermatosis is a condition that if recognized early, may provide treatment satisfaction through immediate removal of the lesions. Physicians should keep TFFD in their differential during evaluation of patients with asymptomatic, hyperpigmented, hyperkeratotic plaques. Awareness of TFFD is important, as early diagnosis can prevent unnecessary treatment and diagnostic workup.

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