

**DIAGNOSIS AND TREATMENT IN A SINGLE SWIPE: TERRA FIRMA-FORME
DERMATOSIS****Mustafa Alperen Aydeniz^{1*}**

Department of Dermatology and Venereology, Siirt Training and Research Hospital, Siirt, Turkey.

***Corresponding Author: Mustafa Alperen Aydeniz**

Department of Dermatology and Venereology, Siirt Training and Research Hospital, Siirt, Turkey.

DOI: <https://doi.org/10.5281/zenodo.23032608>**How to cite this Article:** Mustafa Alperen Aydeniz^{1*}. (2026). Diagnosis and Treatment In A Single Swipe: Terra Firma-Forme Dermatitis. European Journal of Pharmaceutical and Medical Research, 13(10), 280–282.

This work is licensed under Creative Commons Attribution 4.0 International license.

Article Received on 31/08/2026

Article Revised on 21/09/2026

Article Published on 01/10/2026

ABSTRACT

Terra firma-forme dermatosis (TFFD) is a benign keratinization disorder characterized by dirt-like brown-gray lesions, predominantly affecting children and young adults. A 10-year-old girl presented with an asymptomatic brown-gray patch on the posterior aspect of the right lower leg that had been present for two months. No improvement had been observed despite previous treatment with topical corticosteroids, antifungal agents, and moisturizers. The lesion was completely cleared after wiping with 70% isopropyl alcohol, confirming the diagnosis of TFFD. Recognition of TFFD and the use of a simple alcohol-wiping test enable rapid diagnosis and immediate treatment while helping to avoid unnecessary diagnostic procedures and inappropriate therapies.

KEYWORDS: Alcohol rubbing test; Duncan's dirty dermatosis; isopropyl alcohol; pediatric dermatology; Terra firma-forme dermatosis.

INTRODUCTION

Terra firma-forme dermatosis (TFFD) is a benign keratinization disorder characterized by brown-gray hyperpigmented patches and plaques with a dirt-like appearance, particularly affecting children and young adults.^[1,2] It was first described by Duncan et al. in 1987.^[1] Although its etiopathogenesis remains incompletely understood, delayed keratinocyte maturation and abnormal keratinization are thought to contribute to the development of its characteristic clinical appearance.^[2,3] The persistence of lesions despite routine washing with soap and water, followed by their complete removal with 70% isopropyl or ethyl alcohol, is considered a pathognomonic diagnostic feature.^[1-3] Recognition of TFFD is important to avoid unnecessary laboratory investigations, skin biopsies, and inappropriate treatments.^[3] Herein, we present a 10-year-old girl with TFFD whose lesion completely resolved following an alcohol-wiping test.

medical history revealed no improvement despite previous use of topical corticosteroids, topical antifungals, and moisturizers, as well as regular bathing with soap and water. Dermatological examination revealed a brown-gray hyperpigmented patch with a dirt-like appearance located on the posterior aspect of the right lower leg (Fig. 1). Based on the clinical presentation, TFFD was suspected. An alcohol rubbing test was performed using 70% isopropyl alcohol, which resulted in immediate and complete clearance of the lesion (Fig. 2). Based on the characteristic clinical findings and the diagnostic response to the test, the patient was diagnosed with terra firma-forme dermatosis.

CASE REPORT

A 10-year-old girl presented to the dermatology outpatient clinic with an asymptomatic skin discoloration on her right leg that had persisted for two months. Her



Fig. 1: A brown-gray hyperpigmented patch with a dirt-like appearance on the posterior aspect of the right lower leg before the alcohol rubbing test.



Fig. 2: Complete clearance of the lesion following the alcohol rubbing test with 70% isopropyl alcohol.

DISCUSSION

TFFD is an uncommon and benign dermatological condition that is often underrecognized in clinical practice.^[2,3] The term “terra firma-forme” is derived from the Latin expression terra firma, meaning “solid land” or “dry land,” reflecting the characteristic dirt-like appearance of the lesions.^[6] The condition is also known as “Duncan’s dirty dermatosis,” following its initial description by Duncan et al. in 1987.^[1,3] Despite its striking clinical appearance, TFFD often remains underdiagnosed due to its strong resemblance to other hyperpigmented or dirty-appearing dermatoses.^[2,3]

TFFD predominantly affects children and adolescents, although cases in adults have also been reported.^[2] In a retrospective study of 79 patients by Aslan et al., 88.6% of the cohort were children, with a mean age of 10.4 years.^[4] Clinically, TFFD presents as asymptomatic, brown-gray, dirt-like patches or plaques that resist routine cleansing with soap and water. Lesions may develop at various anatomical sites, most commonly involving the neck, trunk, and extremities.^[2,3,5]

The diagnosis of TFFD is primarily clinical. Complete clearance of the lesion upon rubbing with 70% isopropyl or ethyl alcohol serves as a pathognomonic diagnostic feature. The differential diagnosis includes dermatosis neglecta, acanthosis nigricans, confluent and reticulated papillomatosis, tinea versicolor, and post-inflammatory hyperpigmentation. Notably, dermatosis neglecta lesions are typically cleared with routine soap and water hygiene, whereas TFFD lesions are characteristically resistant to conventional washing—a key point of distinction between the two entities.^[2,3,5]

The present case aligns well with the demographic and clinical profile of TFFD established in the literature, given the patient’s age of 10 years, the asymptomatic presentation, the localization on the posterior aspect of the right lower leg, and the immediate clearance following an alcohol-wiping test. The lack of response to prior topical corticosteroids, antifungals, and moisturizers underscores how easily TFFD can be misdiagnosed in daily clinical practice.^[2-4] Failure to recognize this benign condition may result in unnecessary laboratory workups, skin biopsies, and ineffective therapies, while causing unwarranted anxiety for pediatric patients and their families.^[6]

CONCLUSION

TFFD is a benign keratinization disorder that should be actively considered in the differential diagnosis of dirt-like brown-gray lesions, particularly in pediatric patients. Wiping the lesion with 70% alcohol offers a simple, non-invasive, and rapid diagnostic tool that simultaneously provides immediate definitive treatment. Prompt recognition of TFFD is essential to prevent unnecessary diagnostic investigations and inappropriate medical interventions.

INFORMED CONSENT

Written informed consent was obtained from the patient’s parent/legal guardian for publication of this case and the accompanying clinical images.

ACKNOWLEDGEMENTS

The author has no acknowledgements to declare.

FUNDING

This study received no external funding.

CONFLICT OF INTEREST

The author declares no conflict of interest.

REFERENCES

1. Duncan WC, Tschen JA, Knox JM. Terra firma-forme dermatosis. *Arch Dermatol*, 1987; 123(5): 567-9.
2. Sechi A, Patrizi A, Savoia F, Leuzzi M, Guglielmo A, Neri I. Terra firma-forme dermatosis: a systematic review. *Int J Dermatol*, 2021; 60(8): 933-43.
3. Greywal T, Cohen PR. Terra firma-forme dermatosis: a report of ten individuals with Duncan's dirty dermatosis and literature review. *Dermatol Pract Concept*, 2015; 5(3): 29-33.
4. Aslan NÇ, Güler Ş, Demirci K, Isiyel E. Features of terra firma-forme dermatosis. *Ann Fam Med*, 2018; 16(1): 52-4.
5. Vakirlis E, Theodosiou G, Lallas A, Apalla Z, Sotiriou E. Terra firma-forme dermatosis: differential diagnosis and response to salicylic acid therapy. *Pediatr Dermatol*, 2019; 36(4): 501-4.
6. Oh CC, Oon HH, Ng SK, Tee SI, Jhingan A, Chong WS. Terra firma-forme dermatosis in Singaporean patients: the "alcohol wipe" sign. *Skinmed*, 2016; 14(5): 345-8.