



Penile Terra Firma-Forme Dermatitis: A Report of Two Cases

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Dear Editor:

Terra firma-forme dermatosis (TFFD) primarily affects children and young adults with normal hygiene. It is characterized by asymptomatic, benign, dirt-like dermatosis that is easily removed by scrubbing with 70% isopropyl alcohol (alcohol swab test)^{1,2}. The most commonly involved areas are the face, neck, trunk, ankles, and umbilicus, although the genital area may also be affected. Few cases of TFFD have been reported^{3,4}. Herein, we present two cases of penile TFFD.

Case 1: A healthy 13-year-old boy presented with a three-month history of a brownish lesion on the skin of the penile shaft. He showered daily and had good hygiene habits. Physical examination revealed grouped, linear, brownish, flat-topped papuloplaques on the penile shaft (Fig. 1A). Punch biopsy revealed lamellar hyperkeratosis with keratin globules, mild acanthosis, papillomatosis, and increased melanin pigmentation along the basal layer (Fig. 2). Interestingly, the lesion almost completely disappeared when the area was gently



Fig. 1. (A) Grouped, linear, brownish, flat-topped papuloplaques were seen on the penile shaft. (B) Most of the lesions disappeared after scrubbing with an alcohol swab.

Received August 19, 2021 **Revised** November 29, 2021 **Accepted** January 24, 2022

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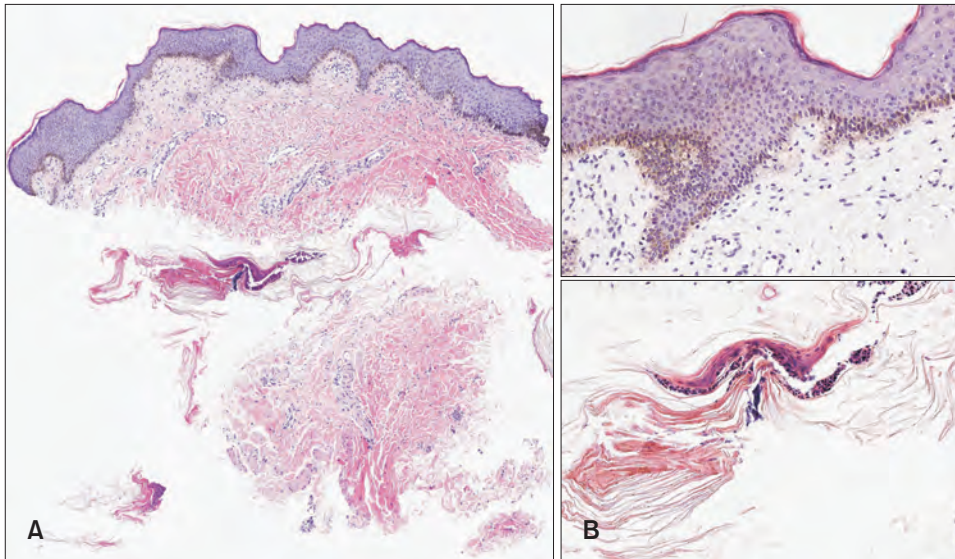


Fig. 2. Findings from punch biopsy of the penile lesion. Mild acanthosis and papillomatosis (A: H&E, $\times 100$), increased melanin pigmentation along the basal layer and lamellar hyperkeratosis with keratin globules (B: H&E, $\times 400$) are noted.

scrubbed with an alcohol swab for conducting the biopsy (Fig. 1A), and there was no lesion recurrence.

Case 2: A healthy 8-year-old boy with normal hygiene habits presented to the clinic with a four-month history of a brownish lesion on the skin of the penis. His parents tried to remove the lesion by rubbing it with soap, but there was no improvement. Physical examination revealed brownish, flat-topped papuloplaques on the penile shaft (Fig. 1B). As the lesion could almost completely be scrubbed off with an alcohol swab (Fig. 1B), further biopsy was unnecessary. No recurrence was noted at the one-month follow-up.

TFFD is characterized by the occurrence of dirt-like plaques despite good hygiene^{1,2,4}. It is important to distinguish TFFD from other papillomatous dermatoses such as dermatosis neglecta, acanthosis nigricans, and epidermal nevi because they are very similar in appearance to TFFD⁵. Especially, patients with dermatosis neglecta had poor hygiene, and the lesion was easily removed with detergents⁵. Dermoscopic findings of large, polygonal, plate-like, brown scales arranged in a mosaic pattern could be useful for diagnosing TFFD². TFFD lesions characteristically disappear completely after wiping with 70% ethyl or isopropyl alcohol, although they are not removed when washed with soap. Alcohol swabbing is the gold standard treatment for TFFD. Stacked hyperkeratosis can also be removed with keratolytic agents such as 2% salicylic acid, lactic acid, and urea lotion². Furthermore, fresh lemon juice can be used as an alternative to alcohol in patients with alcohol intolerance³.

Currently, the etiology of TFFD is considered to be hyperkeratosis due to impaired desquamation and delayed keratinization which leads to the progressive accumulation of sebum and dirt². However, the dirt-like dermatosis could also be attributed to the creation of a favorable environment for bacterial overgrowth due to contact of the skin of the genital area with urine, which is slightly acidic^{2,3}.

When treating patients with brownish hyperkeratotic lesions in whom TFFD is suspected, the patient's hygiene habits should be checked and an alcohol swab test should be performed prior to biopsy, as this can help avoid unnecessary tests and treatments.

ACKNOWLEDGMENT

We received the patient's consent form about publishing all photographic materials.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

FUNDING SOURCE

None.

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