

# Terra firma-forme dermatosis – a dirty dermatosis: report of two cases

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## ABSTRACT

Terra firma-forme dermatosis is characterized by 'dirty' brown-grey cutaneous patches and plaques that can simply be eradicated by forceful swabbing with alcohol pads. The pathogenesis has been attributed to abnormal and delayed keratinization. Although affected patients present with typical lesions, the disorder is not well-known by physicians. From a clinical point of view, we lay emphasis on its unique expression and diagnosis/treatment. From a histological perspective, we highlight its resemblance to dermatosis neglecta and speculate on the role of 'neglect' in a patient with seemingly adequate hygiene. The role of urea containing emollients in the development of this disorder remains to be determined.

**Key words:** Dermatitis neglecta; Dermatoses neglecta; Terra firma-forme dermatosis

## INTRODUCTION

Terra firma-forme dermatosis (TFFD) is a bizarre, acquired and idiopathic dermatosis [1]. The disorder was initially reported as a distinct entity by Duncan *et al.*, in 1987. The Latin phrase *terra-firma* mean 'dry land' and denotes a cutaneous discoloration resembling 'dirt' (hence the alternative name Duncan's Dirty Dermatoses) [2].

## CASE REPORTS

### Case 1

A 26-year-old male presented with a 15 days history of persistent scaly pigmented patches on the nape of neck. Patient gives history of not taking bath for a period of 7 days.

Cutaneous examination revealed brown-grey patches on nape of neck (Fig. 1).

There were islands of normal skin within the patches. Initial tentative clinical diagnoses were terra firma-forme dermatosis, pomade crust, confluent and reticulated

papillomatosis and acanthosis nigricans. A 'wipe test' with 70% ethyl alcohol accomplished clearance of lesions (Fig. 2).

### Case 2

A 70-year-old male presented with a 25 to 30 days history of persistent scaly pigmented patches on the left leg. Patient gives history of admission in hospital for a systemic condition since 10 days.

Cutaneous examination revealed brown-grey patches on anterior surface of left leg (Fig. 3). There were islands of normal skin within the patches. A 'wipe test' with 70% ethyl alcohol accomplished clearance of lesions (Figs. 4 and 5).

## DISCUSSION

TFFD is a recently described cutaneous pigmentation disorder. It is probably more prevalent than cited in the Literature. The disorder affects all age groups (age range: 3 months to 72 years) and both genders [1,3]. Clinically, TFFD is characterized by brown-grey, velvety, pigmented patches or plaques [2]. Involvement

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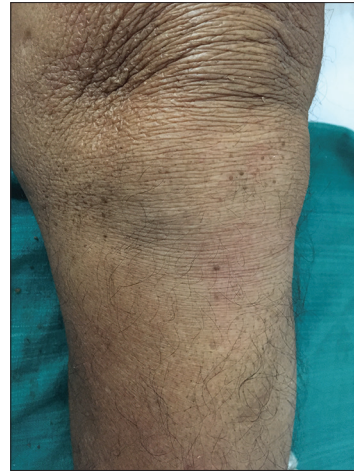
**Figure 1:** Multiple scaly pigmented patches on the nape of neck.



**Figure 4:** Wipe test.



**Figure 2:** Wipe test.



**Figure 5:** Clearance of the lesions.



**Figure 3:** Multiple scaly pigmented patches.

of the face, neck, trunk or ankles is usual, although unusual sites such as scalp, lips, chest, axilla, back, umbilical area, pubis, arms and legs have been

reported [3-5]. The distribution may be localized, generalized or symmetrical. Rarely palpable verrucous or papillomatous plaques, reticulated patches and focal slight scaling have been observed [4].

Symptomatic cases are rare; however, TFFD is a cause of cosmetic concern [1].

The histopathological description encompasses prominent lamellar hyperkeratosis with focal areas of compact whorled orthokeratosis [1], papillomatosis, mild acanthosis and deposition of keratotic material within the valleys between the papilla [5]. There is no parakeratosis. Dermal inflammation is trivial [2,5]. Other findings with special stains include increased melanin content in the compact hyperkeratotic and basal areas of the epidermis (Fontana-Masson) [1], scattered keratin globules throughout stratum corneum (Toluidine blue) [1,5] and occasional yeast cells indicative of *Pityrosporum* (Periodic Acid Schiff) [5,6].

The diagnosis of TFFD is confirmed by forceful rubbing with a gauze pad immersed into 70% isopropyl alcohol [1,2] or ethyl alcohol. This diagnostic test prevents unnecessary laboratory work-up or biopsy [3]. In addition, it offers a magical and prompt therapeutic cure for the disorder [1,2]. A pink normal skin underneath is exposed after the wiping procedure [5]. Reappearance is unusual once the skin is devoid of 'dirty' appearance. Prophylactic weekly application of alcohol has been recommended for resistant or recurrent cases [1]. Patients should be reassured about the benign nature of TFFD and educated about the cleaning procedure.

Differential diagnosis includes acanthosis nigricans, confluent and reticulated papillomatosis, pityriasis versicolor, epidermal nevi, dirty neck syndrome of atopic dermatitis and dermatosis neglecta (DN) [1,3,5].

Most of these disorders can be excluded by alcohol swab test [1,3]. DN results from 'neglect', i.e. poor hygiene or inadequate skin cleansing [6]. TFFD is distinguished from DN arbitrarily by presence of adequate hygiene, absence of cornflake-like brownish scales and successful eradication of pigmentation with isopropyl alcohol in the former and effective clearance of lesions with soap and water in the latter [1,2,4-6].

However, isopropyl alcohol is operative in both disorders [1,5].

Histologically, DN is similar to TFFD, except for the absence of whorled hyperkeratosis in DN [1,5]. Nevertheless, the distinction between TFFD and DN

is blurred and there seems to be a considerable clinical and histological overlap between the two disorders.

## CONCLUSION

Dermatitis neglecta is an underreported, asymptomatic, but aesthetically bothersome dermatosis. Physicians need to be aware of this condition that can be clinically diagnosed and effectively and inexpensively treated.

## Consent

The examination of the patient was conducted according to the Declaration of Helsinki principles.

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