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CASE REPORT

# Dermatosis Neglecta Localized to the Periumbilical Region: A Case Report

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**Abstract:** Dermatosis neglecta (DN) is a rare psychocutaneous disorder. To the best of our knowledge, this is the first reported case of DN localized to the periumbilical region. We present a case of 19-year-old male patient who developed extensive, persistent, scaly plaques on his abdomen over two years, which were resistant to routine washing with soap and water. Dermoscopy revealed no hemorrhage or other significant abnormalities. Wood's lamp examination demonstrated white fluorescence, and direct mycological tests were negative. The diagnosis was confirmed by the complete resolution of the lesions after wiping with 70% isopropyl alcohol, which revealed normal underlying skin. Based on the clinical presentation and diagnostic evaluation, a diagnosis of DN was established.

**Keywords:** dermatosis neglecta, abdomen, differential diagnosis

## Introduction

Dermatosis neglecta (DN) was first described by Poskitt et al in 1995 as a rare psychogenic dermatosis characterized by localized, persistent, hyperkeratotic plaques with a "dirty" appearance.[1] The exact pathogenesis remains unclear, but is generally attributed to inadequate local hygiene, underlying psychological conditions such as depression or schizophrenia, and neurological impairments that disrupt normal skin care behavior.[2,3] DN can affect individuals of all ages with no clear gender predilection. Lesions typically develop gradually over weeks to months and are often asymptomatic, though mild pruritus or odor may occasionally be reported.[4] Classically, DN presents with adherent, cornflake-like scales; however, the morphology may vary depending on anatomical site and skin type. Commonly affected areas include the face, neck, axillae, and genital region, though lesions may occur on any easily accessible part of the body.[2,3] The clinical significance of DN lies in its frequent misdiagnosis as other dermatoses—particularly psoriasis, terra firma-forme dermatosis, or confluent and reticulated papillomatosis—leading to unnecessary investigations and inappropriate treatment.[4,5] We present a case of DN involving the abdominal region in a young male patient, aiming to enhance clinical recognition and support accurate diagnosis and management of this condition.

## Case Report

A 19-year-old overweight male with central obesity presented with scaly plaques around the umbilicus that had persisted for two years. The lesions had developed insidiously without any identifiable triggers, appeared grayish-white, non-pruritic, and were resistant to routine cleansing. Notably, the patient did not perform vigorous or deliberate scrubbing of the area during daily hygiene.The patient denied any history of psychiatric disorders or physical disabilities. Dermatological examination revealed well-demarcated, cornflake-like scaly plaques confined to the periumbilical abdomen (Figure 1A). No other body areas were involved. Dermoscopy showed adherent scales without hemorrhage or signs of inflammation (Figure 1B), Wood's lamp examination revealed bright white fluorescence (Figure 1C), and potassium hydroxide (KOH) microscopy was negative for fungal elements (Figure 1D). A provisional diagnosis of DN was made.

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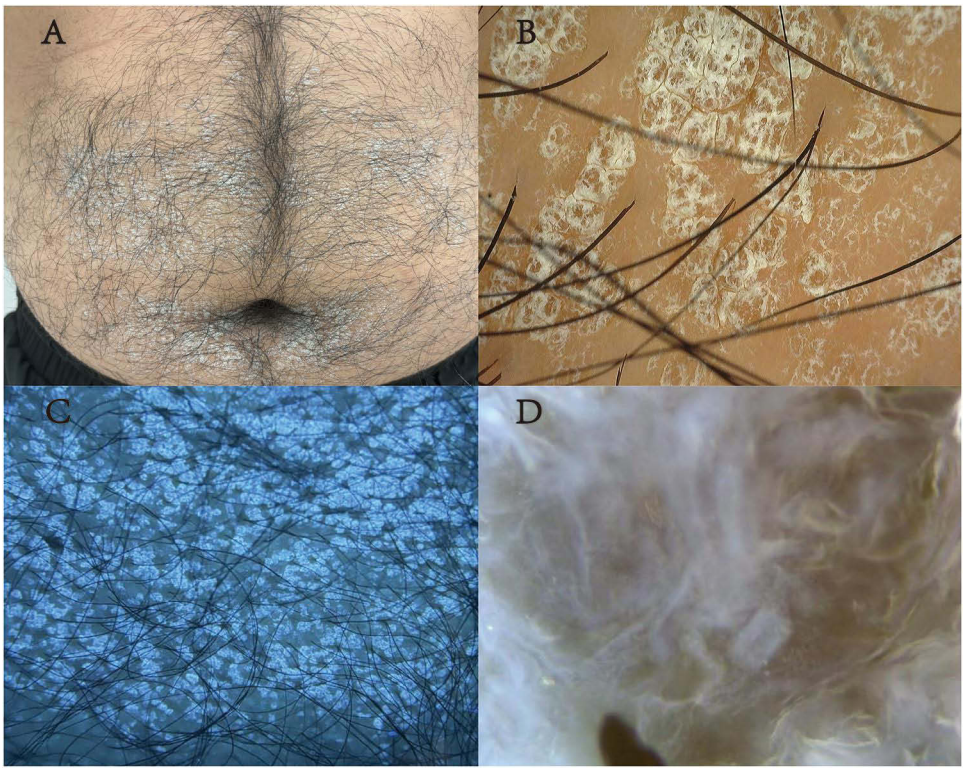


**Figure 1** Clinical and auxiliary findings of DN. Large, sharply demarcated gray-white plaques with cornflake-like scales localized to the periumbilical region (**A**). Dermoscopy showing adherent scales without hemorrhage or inflammatory changes (**B**). Wood's lamp examination revealing white fluorescence, indicative of keratin and debris accumulation (**C**). Direct KOH preparation of scale scrapings showing no fungal hyphae or spores (**D**).

The affected area was scrubbed with gauze soaked in 70% isopropyl alcohol, which completely removed the adherent scales and revealed normal skin without erosion or pigmentary change, thereby confirming the diagnosis. The patient expressed surprise at the immediate improvement in the appearance of his skin. The patient was counseled on proper hygiene practices and instructed to clean the area regularly with soap and water. At the one-month telephone follow-up, the patient reported no recurrence.

## Discussion

DN is an acquired cutaneous disorder resulting from insufficient local hygiene, leading to the accumulation of keratin, sebum, sweat, bacteria and environmental debris.[1,2] Although it can occur anywhere on the body, DN typically affects areas prone to debris retention, such as the face, armpits, nipples and navel.[3] The umbilical region, with its deep folds and limited accessibility, is particularly susceptible to inadequate cleansing. In this case, the patient's central obesity accentuated the periumbilical folds, facilitating the retention of scales and secretions. This anatomical predisposition may explain the exclusive abdominal presentation in an otherwise healthy young male.

The diagnostic context of DN is evolving. Historically, DN was often associated with physical pain or disability;[4] however, it is increasingly recognized in patients with psychiatric conditions such as schizophrenia, obsessive-compulsive disorder, dementia and intellectual disability,[5] particularly among those unable to maintain personal hygiene or lacking adequate external care. Meanwhile, studies have reported that DN lesions most frequently occur on the anterior trunk, the area most accessible during bathing, and that many patients initially deny poor hygiene practices.[6] In the present case, the patient also believed his hygiene was adequate, but detailed history-taking revealed insufficient cleansing habits. Thus, actively screening for psychosocial risk factors and daily hygiene practices is essential for timely and accurate diagnosis.

Three key findings were pivotal in confirming the diagnosis of DN in our patient:

1. The characteristic "cornflake-like" scales, which are highly suggestive of DN.[7]
2. Bright white fluorescence under Wood's lamp, reflecting keratin and debris accumulation. Although nonspecific, this finding, in conjunction with a negative KOH microscopy, helps exclude pityriasis versicolor.[8]
3. A positive alcohol swab test, wherein the lesions were completely removed by scrubbing with 70% isopropyl alcohol, exposing normal skin underneath. This therapeutic and diagnostic maneuver is considered pathognomonic.

The distinction between DN and terra firma-forme dermatosis (TFFD) remains debated. TFFD has been described as a discrete entity presenting as hyperpigmented plaques that are resistant to conventional washing but removable with alcohol in individuals with otherwise normal hygiene.[9] In contrast, some authors propose that DN and TFFD represent points on a spectrum, differing primarily in etiology and clinical context.[6] DN typically results from inadequate local hygiene, with lesions often partially removable by vigorous soap-and-water cleansing. TFFD, however, occurs in patients with preserved hygiene, with lesions resistant to routine washing but responsive to alcohol swabbing.[10] In our case, the patient's history of inadequate cleansing and the gray-white, scaly (rather than hyperpigmented) nature of the plaques align more closely with classic DN. Despite these distinctions, both conditions share overlapping clinical features, underscoring the importance of comprehensive assessment of patient history, hygiene practices, and lesion distribution for accurate diagnosis.

Management of DN is straightforward but should extend beyond lesion removal. Although alcohol swabbing is effective in mild cases, more adherent plaques may require additional keratolytic agents, such as urea, lactic acid or salicylic acid.[11,12] Patient education is crucial to prevent recurrence and should emphasise regular and thorough cleansing of anatomically predisposed regions. For patients with psychiatric comorbidities or physical disabilities, multidisciplinary care may be necessary to address underlying risk factors. In this case, the patient declined histopathological evaluation, and his relocation precluded acquisition of follow-up images, limiting comprehensive documentation of long-term outcomes. Nevertheless, the dramatic response to the alcohol swab test is considered pathognomonic, strongly supporting our diagnosis.

## Conclusion

We report a case of DN occurring in an uncommon abdominal location. To our knowledge, such a presentation is exceptionally rare. This case highlights that DN may arise in healthy individuals where anatomical and habitual factors converge. A high index of suspicion is essential when evaluating treatment-resistant scaly plaques, as recognizing this condition can prevent unnecessary diagnostic and therapeutic interventions, ensuring appropriate patient management.

## Consent to Participate

Written informed consent was obtained from the patient for publication of case details along with images or videos.

## Ethical Approval

Approval was obtained from the ethics committee of the Second Affiliated Hospital of Wannan Medical college. The procedures used in this study adhered to the tenets of the Declaration of Helsinki.

## Acknowledgments

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## Disclosure

The authors report no conflicts of interest in this work.

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