

Clinico-epidemiological Study of Dermatitis neglecta in a tertiary care centre in southern India

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Abstract:

Background: Dermatitis neglecta is an uncommon disorder, characterized by asymptomatic hyperpigmented verrucous plaques adhered with flakes and scales in an inadequately cleansed area caused by neglect or inadequate hygiene in skin care. It is of diagnostic importance to reduce unnecessary interventions and burdens to patients.

Aims: The aim of this study was to ascertain the clinical and epidemiological spectrum of dermatitis neglecta encountered in a tertiary care centre in southern India

Settings and Design: Prospective observational study

Methods and Material: Thirty cases of dermatitis neglecta presenting between May 2021 to April 2023 were studied and their demographic and clinical parameters were analysed.

Statistical analysis used: MS Excel had been utilized to compile the data, while SPSS version 20 was employed for analysis.

Results: In our study mean age of onset had been 52 years with ratio of male to female was 3:7. The disorder was prevalent in postoperative patients, physically disabled patients, secondary to psychiatric illness and patients with neurological deficits. The most common location of dermatitis neglecta were the extremities (53.3%), followed by trunk (26.6%), face (16.6%), genitals (3.5%).

Conclusions: Dermatitis neglecta is a common yet underdiagnosed and preventable skin condition associated with poor hygiene. Understanding the epidemiological and clinical features of patients with dermatitis neglecta can aid in early diagnosis. Healthcare professionals should educate their patients on

the importance of personal hygiene and encourage adequate self-care practices to prevent development of dermatitis neglecta.

Key-words: Dermatitis neglecta, poor hygiene, dirty dermatosis

Introduction:

Poskitt et al. initially recognized and described dermatitis neglecta, commonly referred to as unwashed dermatosis, in the year 1995.^[1] Dermatitis neglecta is a clinical illness that is rarely recognized because of poor cleaning, forming an adherent crust of dirt.^[2] It mainly involves the trunk and flexures, presenting as hyperpigmented verrucous plaque. Water along with soap may be employed to remove these lesions.^[3,4] It is frequently misdiagnosed because it resembles other hyperpigmented disorders.^[4] Although this dermatosis is a widespread dermatological condition, there is a dearth of literature on it, and it is frequently misdiagnosed or underdiagnosed. In this study, we described the clinical and epidemiological features of Dermatitis neglecta in patients attending dermatology OPD as well as inpatients of our institute.

Settings and Design: This prospective observational study's objective was to ascertain clinical as well as epidemiological spectrum of Dermatitis neglecta encountered at a tertiary care centre in southern India. Each clinically diagnosed instance (30) of Dermatitis neglecta, who attended dermatology outpatient department, between May 2021 to April 2023 had been involved in this investigation. Every case had a thorough history that included information on age, gender, duration of stay. To ascertain the region of involvement, lesion morphology, as well as lesion pattern, a comprehensive clinical

examination was conducted. MS Excel had been utilized to compile the data, while SPSS version 20 was employed for analysis.

Results:

In our study mean age of onset was 52 years with age of the patients ranging from 5-56 years. Male-to-female ratio was 3:7. Majority of the cases (80%) presented during the postoperative period. All the patients had a history of inadequate cleansing, improper hygiene and self-neglect (100%). The probable reason for neglect was pain and apprehension following post-surgery in 12 patients; immobility in 8 patients; herpes zoster in 4 patients; post radiation in 3 patients; secondary to psychiatric illness in 2 patients and physical barrier in the form of a cast in 1. The duration of onset varied from 2 to 6 weeks.

The clinical lesions included asymptomatic localized hyperpigmented verrucous plaque. Most common location of dermatitis neglecta was the extremities (53.3%), followed by trunk (26.6%), face (16.6%), genitals (3.5%). Other dermatological examinations were normal. The lesions could be wiped off with soap and water or spirit swabs in all our patients (100%).

Figure 1

- a) Hyperpigmented verrucous plaque over Right leg – postleukocytoclastic vasculitis
- b) Spirit swab test positive





Figure 2

- a) Dermatitis neglecta with underlying keloid
- b) Normal looking skin after cleansing with spirit swab

Discussion:

Dermatitis neglecta is a quite rare condition that occurs in routine clinical settings.^[1] The etiology of this entity has not been thoroughly investigated. The triggering elements are thought to consist of inadequate cleanliness and poor hygiene in a painful area, immobility, hyperesthesia, previous trauma, and post-surgery, which results in insufficient skin exfoliation.^[5,6] These localized verrucous plaques with hyperpigmented patches or adherent, corn flake-like scales are most likely caused by keratin, perspiration, sebum, and other dirt buildup.^[5,7] When the lesion is thoroughly cleaned with soap along with water or gauze soaked in alcohol, it resolves completely. Patients should receive counselling and encouragement to keep the affected area hygienic, as this is more useful than harmful. Cleaning the

afflicted region every day with water along with soap or alcohol is usually enough. For instances that are resistant Emollients as well as keratolytic agents can be used.^[3]

When making a differential diagnosis for any hyperpigmented localized lesions, dermatitis neglecta should be considered, particularly in individuals with disabilities. A total of 30 patients with dermatitis neglecta were evaluated including 21 females (73%) and 9 males (27%) with male to female ratio of 3:7. The mean age had been 52 years, with a range of 5 to 56 years. A spirit swab as well as mild soap water were employed to gently clean the region, and the patients' typical clinical features were employed to make the diagnosis. Twenty-three (77%) of thirty individuals were from rural regions, while the other seven (23%) were from metropolitan areas. The disease lasted for 2-6 weeks, with a mean of 4 weeks. Every patient (100%) had cosmetic concerns when they first arrived. Fear of pain & apprehension following post-surgery was the predominant reason for neglect in 12 patients (40%). In remaining cases 8 patients (27%) had immobility, herpes zoster in 4 patients (13%), post radiation in 3 patients (10%), secondary to psychiatric illness in 2 patients (7%), Physical barrier in the form of cast in one (3%). All age groups as well as both sexes are affected by dermatitis neglecta, that can appear anywhere on the body but is typically restricted to hard to reach regions. Though, in this case study we discovered that extremities were predominant location affected in 16 patients (53%). Other involved sites were trunk (27%), face (17%), genital (1%) areas.

Several differential diagnoses must be investigated, with TFFD being a special mention. Terra firma forme dermatosis resembles dermatitis neglecta, with diagnostic indicators including proper hygiene, absence of cornflake-like scales, along the unclean patch's resistance to cleansing with soap & water.^[8,9,10,11,12,13] Dermatitis artefacta is a factitious condition characterized by lesions that are self-induced or exacerbated by the patient, stemming from underlying psychological issues.^[14] Confluent as well as reticulated papillomatosis of Gougerot and Carteaud typically manifests as hyperkeratotic or verrucous grey-brown papules that merge into central confluent plaques, exhibiting a reticulated pattern at the periphery. It is predominantly located on the central along with neck, upper trunk, and axilla in adolescents and young adults, and is not associated with hygiene practices.^[15] Entities such as pityriasis versicolor, verrucous naevi, post inflammatory hyperpigmentation, acanthosis nigricans, dirty neck of atopic dermatitis, frictional hyperkeratosis, and numerous varieties of ichthyosis are the other differentials to be excluded.^[3,16] Several case reports and case series have been published. Saha A et al.,^[3] reported dermatitis neglecta in a postoperative patient. 72.7% of patients with dermatitis neglecta in a case study by Ghosh SK et al. had a psychiatric disorder.^[16] We underestimate the actual prevalence of this condition, as most patients remain asymptomatic and are unaware of the underlying pathological characteristics of this seemingly harmless entity.

Conclusion: An underreported aesthetic concern is dermatitis neglecta. In individuals with a history of discomfort or impairment and hyperpigmented verrucous localized lesions, dermatitis neglecta should be taken into consideration. Invasive diagnostic and long treatment procedures are avoided when cases and their underlying causes are identified early. Spirit swab test is both diagnostic and therapeutic. But many at-time vigorous rubbing cannot be done due to recent surgery/pain at the affected area. However, patients are often not convinced by a simple spirit swab test. Misdiagnosis rate will be reduced if medical professionals are properly informed. Additionally, larger sample sizes are required in investigations to determine any underlying causes.

References:

1. Poskitt L, Wayte J, Wojnarowska F, Wilkinson JD. "Dermatitis neglecta": Unwashed dermatosis. *Br J Dermatol* 1995;132:827-9.
2. Han YJ, Kim SY, Choi HY, Myung KB, Choi YW. A case of dermatitis neglecta. *Ann Dermatol* 2008;20:257-9.
3. Saha A, Seth J, Sharma A, Biswas D. Dermatitis neglecta: A dirty dermatosis: Report of three cases. *Indian J Dermatol* 2015;60:185-7.
4. Errichetti E, Stinco G. Dermoscopy in terra firma-forme dermatosis and dermatosis neglecta. *Int J Dermatol* 2017;56:1481-3.
5. Maldonado RR, Durn-McKinstler C. Dermatitis neglecta: dirt crusts simulating verrucous naevi. *Arch Dermatol*. 1999;135:728-9.
6. Sanchez A, Duran C, de la Luz-Orozco M, Saez M, Maldonado RR. Dermatoses neglecta: A challenge diagnosis. *Dermatol Pediatr Lat*. 2005;3(1):45-7.
7. Lucas JL, Brodell RT, Feldman SR. Dermatoses neglecta: a series of case reports and review of other dirty-appearing dermatoses. *Dermatology Online Journal*. 2006;12(7).
8. Duncan WC, Tschen JA, Knox JM. Terra firma-forme dermatosis. *Archives of Dermatology*. 1987 May 1;123(5):567-9.
9. O'Brien TJ, Hall AP. Terra firma-forme dermatosis. *Australasian journal of dermatology*. 1997 Aug;38(3):163-4.
10. Raveh T, Gilead LT, Wexler MR. Terra firma-forme dermatosis. *Annals of plastic surgery*. 1997 Nov 1;39(5):542-5.
11. Lopes S, Vide J, Antunes I, Azevedo F. Dermatitis neglecta: A challenging diagnosis in psychodermatology. *Acta Dermatovenereol Alp Pannonica Adriat*. 2018 Jun 1;27:109-.
12. Panda M, Patro N, Samant S, Arora S. Dermatitis neglecta as a complication after cataract surgery. *Indian Journal of Ophthalmology*. 2016 Mar 1;64(3):231-2.

13. Erkek E, Sahin S, Çetin ED, Sezer E. Terra firma-forme dermatosis. Indian journal of dermatology, venereology and leprology. 2012 May 1;78:358.
14. Kwon EJ, Dans M, Koblenzer CS, Elenitsas R, James WD. Dermatitis artefacta. Journal of Cutaneous Medicine and Surgery. 2006 Mar;10(2):108-13.
15. Lee SW, Loo CH, Tan WC. Confluent and reticulated papillomatosis: Case series of 3 patients from Kedah, Malaysia and literature review. Med J Malaysia. 2018 Oct 1;73(5):338-9.
16. Ghosh SK, Sarkar S, Mondal S, Das S. Clinical profile of dermatitis neglecta with special emphasis on psychiatric comorbidities: A case series of 22 patients from Eastern India. Indian Journal of Psychiatry. 2022 Nov;64(6):599.

Table 1: Epidemiological Data

TOTAL PATIENTS		n=30
Age (years): Mean \pm SD		52
range		5-56
Sex: Males		8 (27%)
Females		22 (73%)
Duration: Mean		4 weeks
Location:		
Extremities		53.3%
Trunk		26.6%
Face		16.6%
Genitals		3.5%
Predisposing factors:		
Pain and apprehension post surgery		40%
Immobility		
Herpes zoster		27%
Post radiation		13%
Secondary to psychiatric illness		10%
Physical barrier in the form of cast		7%
		3%