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Case Report

Lymphedema with dermatitis neglecta: a rare case report

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ABSTRACT

Psychodermatology, an emerging field in dermatology, investigates the complex relationship between the skin and the mind. Dermatitis neglecta, a rare disorder, manifests as the accumulation of bacteria, perspiration, corneocytes, and sebum in a localised area of skin, leading to the development of a hyperpigmented patch or verrucous plaque. This case study presents dermatitis neglect, where the condition was triggered by a deliberate disregard for personal hygiene. Upon clinical examination, the patient presented with a hyperpigmented scaly patch, which was further confirmed through spirit testing. Alcohol swabbing can be used as a therapeutic and diagnostic approach for this particular case. The medical literature and textbooks provide scarce information on dermatitis neglecta, contributing to the limited understanding of this condition. Consequently, misdiagnosis is frequent, leading to unnecessary and aggressive diagnostic and therapeutic procedures. Dermatitis Neglecta is frequently misdiagnosed. Raising awareness of this condition is crucial in order to prevent unnecessary interventions. When required, emollients should be used judiciously, and appropriate patient education on maintaining personal hygiene and the application of keratolytics should be emphasized.

Keywords: Psychodermatology, Dermatitis neglecta, Hyperpigmented patch

INTRODUCTION

The term "dermatitis neglecta" was first introduced by Poskitt et al. in 1995.[1] Dermatitis neglecta is a rare dermatological disorder[2] that rises from inadequate frictional cleansing, resulting in accumulation of sebum, sweat, corneocytes, and bacteria in a localized area of the skin. This accumulation forms a compact and adherent crust of dirt, ultimately leading to the development of a hyperpigmented patch or potentially a verrucous plaque.[3] The condition typically occurs as a consequence of insufficient cleaning or scrubbing of the skin, often in a hyperesthetic or previously traumatized area.[4] It is worth noting that dermatitis neglecta is frequently misdiagnosed due to its diverse range of possible differential diagnoses and the limited coverage of the condition in textbooks and medical literature.[5]

CASE REPORT

A 64-year-old female, presented with a complaint of a progressively swollen left lower limb over a four-month period. The swelling initially manifested as small, painful blisters that eventually evolved into eczematous lesions affecting the entire leg. Additionally, the patient reported a dark lesion on the leg and abdomen, which was asymptomatic. She refrained from bathing for four months due to concerns about illness and a lack of hot

water, which likely exacerbated her condition. The patient also reported a history of joint pain and discharge from the lesions. Upon clinical examination, ill-defined, hyperpigmented, scaly patches were observed on the abdomen and left lower limb (Figure 1).

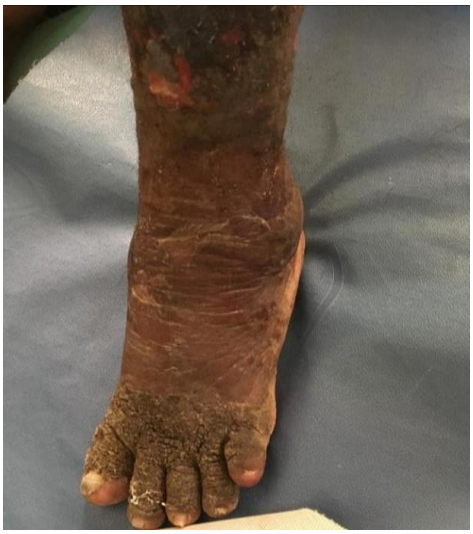

Figure 1: ill-defined, hyperpigmented, scaly patches over the left lower limb on the day of admission.

The spirit test confirmed the diagnosis of dermatitis neglecta. Local examination revealed lower limb edema extending up to the knee joint, accompanied by multiple blisters and sun discoloration on the left lower limb. Doppler study findings demonstrated extensive subcutaneous pitting edema in the distal two-thirds of the left leg and right lower limb along with a few prominent inguinal lymph nodes. Hematological analysis revealed elevated levels of neutrophils (94.5%) and monocytes (6.4%), indicating severe inflammation.

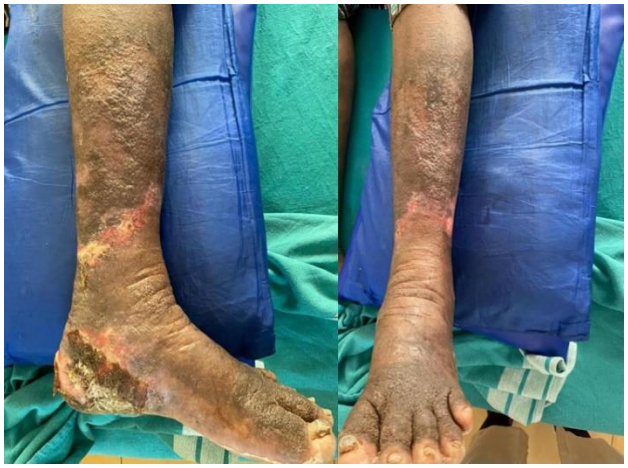

Figure 2: Improvement in patient's condition on day 10.

The patient's treatment regimen followed a progressive approach to address her symptoms and the underlying infection. Initially, on the first day, she was administered a mild analgesic and anti-inflammatory agent to alleviate pain and reduce edema in her legs. Subsequently, on the second day, an additional analgesic was introduced, along with an antibacterial agent, due to the presence of neutrophilia in the patient's lab parameters. Despite these interventions, the patient's condition did not improve, leading to the inclusion of a more potent antibiotic, on the fourth day (Table 1).

Table 1: Day wise treatment table.

Generic name	Dose	Frequency	Days
Clindamycin	1.25 g	1-0-1	Day 1-9
Paracetamol	1g	1-1-1	Day 1-9
Acetaminophen/Tramadol	162.5/18.75 mg	1-1-1	Day 1-20
Pantaprazole	40 mg	1-1-1-	Day 1-28
Trypsin- chymotrripsin	100000 AU	1-1-1	Day 1-15
Piperacillin-tazobactum	4.5 g	1-1-1	Day 4-9
Diclofenac-serratiopeptidase	50/10 mg	1-0-1	Day 5-15
Diethylcarbamazine	100 mg	1-1-1	Day 8- 28
Cefoperazone-sulbactam	1.5 g	1-0-1	Day 10-19
Hydroxyzine HCl	10 mg	1-0-1	Day 16-28
Amoxicillin-clavulanate	500/125	1-0-1	Day 16-25

On the fifth day, the patient's analgesic medication was transitioned from intravenous to oral administration, and a gastro-protective agent, was introduced on the seventh day. Furthermore, an anti-parasitic medication, Tab Banocide forte, was initiated and continued for the subsequent 21 days. However, on the tenth day, the wound culture revealed the growth of multi-bacterial-resistant *Actinobacter baumani*, which necessitated a change in the antibiotic treatment. Consequently, cefuroxime sulbactam was administered based on the culture report's identification of sensitivity to this particular antibiotic. In addition, the patient was advised to apply Neosporin ointment, containing polymyxin B, to the wound site. To promote wound healing, a daily

bathing routine with soap was recommended, followed by the use of sterile blades to shave the patient's skin. A mixture of Neosporin ointment and Moisterex in a 1:1 ratio was then applied to the shaved area, which was subsequently covered with saline-soaked gauze. The observed improvement in the patient's condition on the tenth day is depicted in (Figure 2). The patient's wound got clearer, after which she was discharged on the 21st day with Bacocide Forte and antibiotic. The (Figure 3) shows patient's condition on the day of discharge.

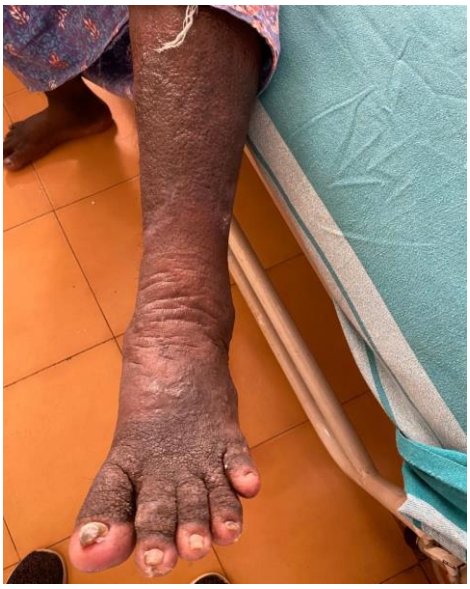

Figure 3: Patient's condition on day of discharge.

DISCUSSION

Maintaining personal hygiene is essential for overall well-being. Regular bathing not only helps in removing dirt, grease, and dead skin cells but also prevents the accumulation of substances on the skin. Neglecting proper hygiene for an extended period of time can result in the formation of scaly buildup. In the case you mentioned, the patient had concerns about taking a bath due to the fear of catching a cold and the unavailability of hot water. Dermatitis neglecta (DN) is a condition that can be easily resolved by reinstating proper bathing habits. For some individuals, simply resuming regular baths can lead to complete resolution of the skin lesions. In more stubborn cases, over-the-counter products may be used to assist in the removal of excess skin. However, it is crucial to seek a professional diagnosis from a dermatologist to ensure that the symptoms are not indicative of another underlying illness.[6]

Treatment for DN often involves vigorous rubbing of the affected area with gauze soaked in alcohol or soap and water. Counseling is an integral part of therapy, as proper hygiene practices need to be encouraged. In some cases, a combination of keratolytic agents and emollients may be required to treat more resistant and verrucous lesions.[7] Additionally, psychotherapy plays a significant role in the management of DN, as it is often associated with psychological disorders that require appropriate treatment with psychotropic medications.[8] Understanding the existence and cause of dermatitis neglecta is crucial in order to avoid unnecessary biopsies and potentially aggressive therapeutic approaches.[9] By being aware of this condition, healthcare professionals can prevent misdiagnosis and ensure appropriate treatment.[10] The treatment for dermatitis, in general, varies depending on the underlying cause and the specific symptoms experienced by the patient. In addition to lifestyle changes and home remedies, corticosteroid creams, gels, or ointments can be applied to the affected skin to alter the immune response. For severe cases, oral corticosteroids or injectable medications like dupilumab may be prescribed. Wet bandages, known as wet dressings, can also be utilized in the medical management of severe atopic dermatitis.[11] In the case you mentioned, the patient with bacterial growth in the wound was treated with a moisturizer mixed with antibiotic ointment after bathing.

CONCLUSION

Dermatitis Neglecta is frequently misdiagnosed. Raising awareness of this condition is crucial in order to prevent unnecessary interventions. When required, emollients should be used judiciously, and appropriate patient education on maintaining personal hygiene and the application of keratolytics should be emphasized.

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