http://jmscr.igmpublication.org/home/
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v7i10.70

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Case Report

Crusted Scabies--- The Omnipresent Scabies in the Elderly

Authors

Rattan Nangia[1], Vijay Nijhawan[2], Aditi Gupta[3*]

[1]Professor, Department of Pathology, Maharishi Markandeshwar Institute of Medical Sciences and Research, Maharishi Markandeshwar (Deemed to be) University, Mullana (Ambala-Haryana)

[2]Professor & HOD, Department of Pathology, Maharishi Markandeshwar Institute of Medical Sciences and Research, Maharishi Markandeshwar (Deemed to be) University, Mullana (Ambala-Haryana)

[3*]2nd year Resident, , Department of Pathology, Maharishi Markandeshwar Institute of Medical Sciences and Research, Maharishi Markandeshwar (Deemed to be) University, Mullana (Ambala-Haryana)

*Corresponding Author

Aditi Gupta

2nd year Resident, Dept of Pathology, MMIMSR, Mullana, Ambala, India

Abstract

Norwegian scabies or crusted scabies is a rare manifestation of scabies which is characterized by heavy infestation by scabies mite along with crust formation. Scabies per se is a contagious condition transmitted through direct contact with an infected person and has frequently been associated with institutional and health care facility outbreaks. The subtype Norwegian scabies, characterized by heavy plaque formation has been frequently reported to be masquerading as other dermatological diseases. A 80 year old male patient was admitted with a five month old history of having developed multiple, erythematous plaques with crusting all over the body. The lesions were initially pruritic but gradually were reported as non pruritic and this hampered the initial diagnosis. The skin biopsy was performed and the final diagnosis of crusted scabies was reported.

Keywords: *Crusted, Norwegian, Infestation, Sarcoptes scabiei.*

Introduction

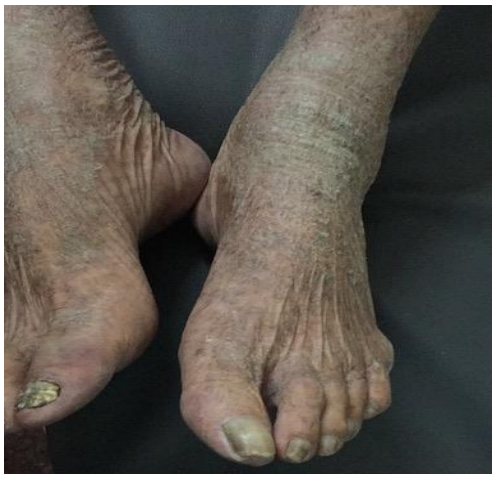
Human scabi is an infestation caused by Sarcoptes scabie var. hominis. Crusted scabies or Norwegian scabies is a rare, atypical and highly infectious variant of sarcoptes scabiei[1]. First described among lepers in 1848[2] by Boeck and Danielssen in Norway, it was named as "Scabies Norvegi Boeki " by Van Hebra in 1862. Crusted scabies, an eponym of 'Norwegian scabies 'is the preferred terminology in view of widespread hyperkeratotic crusted lesions.

Sarcoptes scabie var hominis is an obligate parasite which lives in burrow tunnels in stratum corneum. The chief culprit is the female mite about 400 microns in length with a round body and 4 pairs of legs. The front two pairs end in suckers and the hind two pairs in long trailing bristles[3]. The average life of a mite is 30 days and a female lays 2-3 eggs daily which hatch in 3-4 days. Mature adult stage is reached in 14-17 days. Only about 10% of eggs develop into adult. In a normal patient the average mite infestation is 11[4]. In crusted scabies due to uncontrolled proliferation the number of mites is astonishingly high.

Case History

This study reports the case of a 80 year old male patient from a rural background with poor socioeconomic status presenting to a referral hospital with multiple, ill defined, erythematous, scaly plaques with crusting present all over the body. (Fig. 1, 2). The lesions to start with were itchy but gradually the itching reduced. Multiple consultations were taken by the patient at several medical care centres till the patient reported to this hospital after about 5 months of the illness. The patient reported that the lesions have been gradually increasing and till the time of reporting to the hospital had been spreading to involve the whole body except palmoplantar regions. The lesions were non pruritic and this delayed the initial diagnosis. The patient did not have any associated co-morbidities and was not on any routine medication.

I



II

Figure I & II Ill defined, scaly plaques with crusting involving the dorsal aspect of hands and feet.

Patient was admitted with low grade fever, but had no itching on the crusted lesions. He was put on corticosteroids intravenously but lesions showed no improvement. Five days later patient was subjected to a skin biopsy which gave the final diagnosis of crusted scabies.

Besides routine haematological investigations, patient underwent serological tests for HIV, hepatitis and syphilis along with blood culture which were negative.

On establishment of diagnosis, patient was treated with ivermectin, topical deltemethrin and antihistaminics and was kept in quarantine.

Definitive improvement was seen within 2 weeks of diagnosis. As per the protocol of the hospital, all traceable as well as medical and nursing faculty associated with the management of the case were treated with oral ivermectin.

Discussion

Crusted scabies is known to mimic a number of conditions primarily psoriatic erythroderma, endogenous seborrhoeic dermatitis and Dariers disease[5] besides rarely pityriasis rubra, lichen planus and cutaneous lymphoma.

A very high clinical suspicion of crusted scabies was entertained and a skin punch biopsy from right lower limb was performed. Histopathological examination showed irregular acanthosis, hyperkeratosis, parakeratosis with focal spongiosis and neutrophilic inflammatory exocytosis. Additionally, corneal microabscess formation was noted. Clefts were identified in upper epidermis containing the mite body parts. Dermis showed perivascular and interstitial intense eosinophilic and neutrophilic inflammatory infiltrate. (Fig. 3,4).

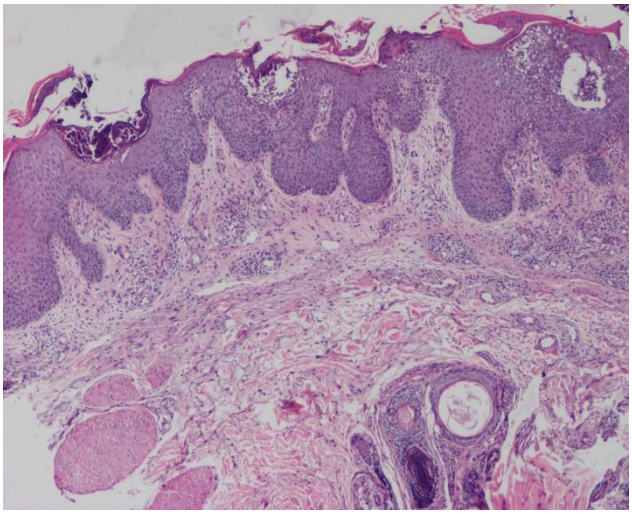


Figure III, H&E 10X Showing irregular acanthosis, hyperkeratosis, parakeratosis with focal spongiosis, neutrophilic inflammatory exocytosis, corneal microabscess.

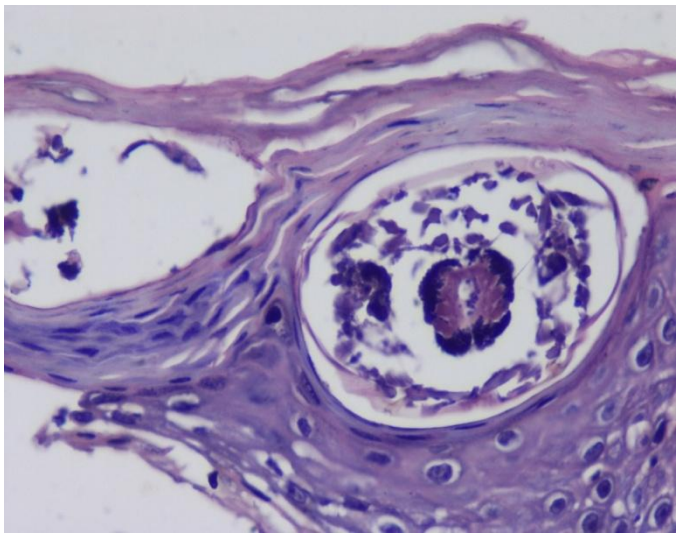


Figure IV, H&E 40X Clefts in upper epidermis containing the mite body parts.

An association between scabies and neurological deficit is common. Association with cognition, sensory and motor impairment has been documented with Norwegian scabies[6]. Our patient 80 year old had history of sensory hearing loss along with features of poor general hygiene and general features of malnutrition, debilitation, all of them leading to poor immunity and precluding to development of infections.

Diagnosis and treatment of crusted scabies poses new challenges. Early diagnosis and treatment forms the cornerstone of therapy. Cases are generally missed especially with apruritic lesions and negative immunological status. Further research is required to exactly pin point the exact post parasite interaction.

References

1. Hengge UR, Currie BJ, Jager G, Lupi O, Schwartz RA. Scabies: a ubiquitous neglected skin disease. Lancet 6:769–779, 2006.
2. Danielsen DG, Boeck W. Treatment of Lleprosy or Greek Elephantiasis. Paris: JB Balliere; 1848.
3. Mellanby K. Biology of the parasite. In: Scabies and Pediculosis. Orkin M, Maibach HI, Parish LC, Schwartzman RM Eds. Philadelphia: Lippincott; 1977. p. 9-16.
4. Karthikeyan K**.** Scabies in children. Arch Dis Child Educ PractEd 2007;92:65-9.
5. Jucowics P, Ramon ME, Don PC, Stone RK, Bamji M. Norwegian scabies in an infant with acquired immunodeficiency syndrome. Arch Dermatol 1989;125:1670-1.
6. Guldbakke KK, Khachemoune A. Crusted scabies: a clinical review. J Drugs Dermatol. 2006;5:221-7.