

## Norwegian scabies- A case report

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### Abstract:

Norwegian scabies is a rare form of a common ectoparasitic infestation of skin. Case report is of importance for the general practitioners point of view and for the information of preventive and social health workers.

**Key words:** Norwegian scabies, ectoparasite.

### Introduction

A case of clinically distinct and highly contagious form of scabies is being reported for practicing physicians of the speciality and community health worker. Highlighting the Importance of unusual clinical presentation of a common infestation of skin and need for early diagnosis and treatment.

### Case Report

A 35-year-old apparently healthy man presented with generalized erythema and scaling of the body of three months duration with intense pruritus which was severe during the nights. He was treated with topical and oral medications including oral corticosteroids at the time of his presentation to us. He is known psychiatric patient and staying alone at home since many years. There was no past history of any preceding eczematous skin lesion. On further questioning he also revealed pruritic skin disease in pet dog staying with him. Cutaneous examination revealed generalized erythema and scaling with the presence of hyperkeratotic crusts accentuated on the palms, soles,

cubital fossae, popliteal fossae, thighs, legs and scalp [Figure 1,2,3]. General physical and systemic examination did not reveal any abnormality. A scraping for KOH mount from the crusted plaques on his hands revealed presence of numerous scabies mites confirming the diagnosis of Norwegian scabies (NS) Figure 4. Routine blood examination and screening test for HIV was negative. He was prescribed oral Ivermectin and antihistaminic with topical Gamma Benzene Hexachlorid lotion on first day and repeated a week after. He improved with this treatment.

### Discussion

Crusted scabies or Norwegian scabies was first described in lepers from Norway.<sup>1,2,3</sup> It is a clinically distinct and highly contagious form of scabies. In common scabies the number of parasites infesting the epidermis is relatively small. Such restriction is basically attributable to mechanical destruction of burrows by scratching, regular cleansing and cell mediated immune response of host. Millions of mites colonize the epidermis inducing characteristic hyperplastic changes seen in NS. This results from failure of the host immune

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response to control the proliferation of mites in the skin leading to hyperinfestation and concomitant inflammatory reaction. Patients chronically treated with immunosuppressive drugs i.e. post renal transplant patients, or those with HIV, HTLV- I infection are more prone to develop NS. It has also been described in patients with severe systemic diseases such as leprosy, rheumatoid arthritis, systemic lupus erythematosus, leukemia and in patients who do not scratch either because of an absence of pruritus or due to immobility such as in mental illness, sensory neuropathy, paresis and senility.<sup>4,5,6</sup>

Clinically, NS is characterized by extensive hyperkeratosis and crusting of the skin especially on the acral areas. The lesions are primarily distributed on the scalp, face, extremities, back and around the nail folds. Pruritus may be moderate to severe. A variable erythema is common evolving sometimes into erythroderma. As in our case, it was presented with erythroderma. In view of the hyperkeratosis and crusting lesions, NS may be confused with psoriasis, keratosis follicularis, contact dermatitis and seborrheic dermatitis which may delay on diagnosis and prompt treatment. A delay in diagnosis of even a single case of NS can lead to a massive outbreak of scabies among patients family member and health care personnel in hospitals and in mental asylums.<sup>7</sup>

Our patient was a otherwise healthy with known risk factors for the development for NS, Patient is a known psychiatric and staying alone. No one to look after him and he is unable to take care of himself as regards to the hygiene and cleaning. Moreover, he is staying with pet that also have pruritic skin lesion, may be canine scabies, causing disease. It could have been possible that simple classical canine scabies was transformed to NS after the daily intake of

corticosteroids which he had been consuming since the onset of his illness. Prolonged use of corticosteroids may induce NS, as was seen in our case. NS represents a serious therapeutic problem. It is very resistant to treatment, relapses frequently. In contrast to classical scabies where a single application of topical scabicial would suffice, treatment application needs to be repeated every four to seven days. The introduction of oral ivermectin to therapeutic armamentarium has revolutionized the treatment of scabies.<sup>8</sup>

Our patient was treated with ivermectin 12mg which was repeated after week along with topical Gamma Benzene Hexachlorid lotion (GBHC) with which his condition improved considerably.

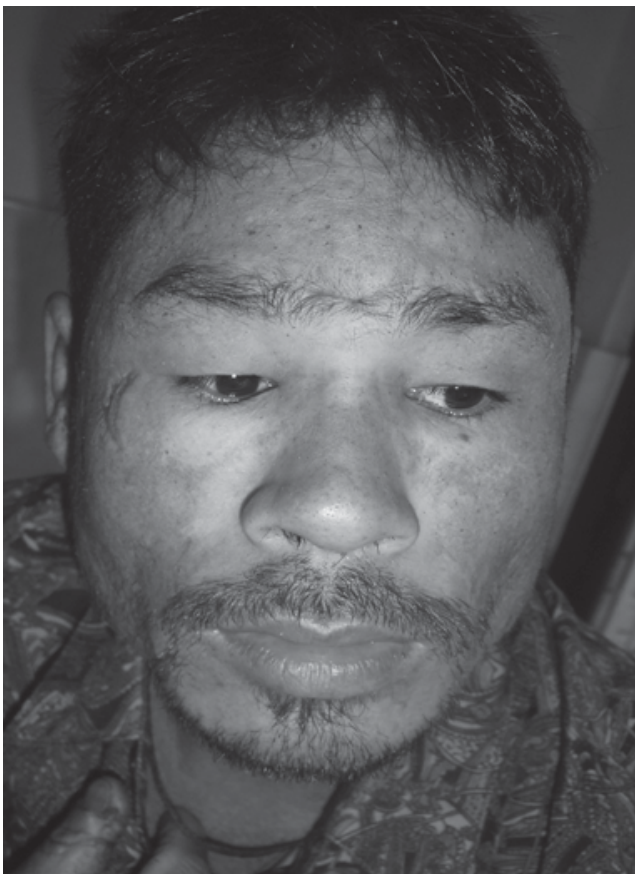
Finally, case is being reported to medical community for the awareness of the disease presentation, leading to early diagnosis, treatment controlling the spread of disease in the community.

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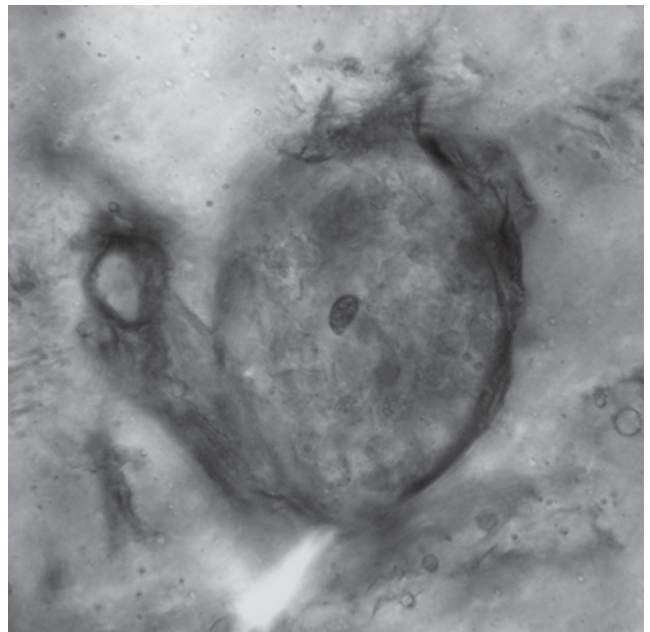
**Figure-1,** Showing diffuse erythema and scaling at abdomen.



**Figure-2,** Showing erythema & scaling at face.



**Figure-3,** Showing scaling & crust at right thigh and leg.



**Figure-4,** Showing sarcoptes adult mite in skin scraping under light microscope x 100.