

Crusted (Norwegian) scabies in an HIV infected man: a case report

ABSTRACT

Scabies is a disease caused by *Sarcoptes scabiei*. Crusted (Norwegian) scabies is a severe form of the disease that affects immuno-compromised patients like those with AIDS. Nowadays, it is becoming rare because of the availability of better hygienic conditions. Rare cases may be seen in mentally retarded patients as in our case.

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INTRODUCTION

Human scabies is an infectious parasitic disease caused by *Sarcoptes scabiei* var hominis. The adult female lays about 40 - 50 eggs during her life span and this number is more in Norwegian scabies. Scabies is more common in children and young adults (1). Overcrowding, poverty and poor hygiene are important predisposing factors. Away from the host, the parasite survives for 24 - 36 hours at room temperature and adequate humidity.

The symptoms of the disease are related to allergic reactions to the mite and its products which give rise to increased serum IgE levels(2). In immuno-competent patients the main symptom is itching that is more at night. The pathognomonic lesion is the burrow. Inflammatory papules and nodules are primary lesions with superadded eczematization and secondary bacterial infection (3).

Crusted scabies or as formerly known

Norwegian scabies was described in Norway by Danielssen and Boeck (4).

The mite population is very big and are found in small cavities in the thickened layers. This form of the disease is rare being frequently found in institutionalized and immuno-suppressed patients (1). With the acquired immune deficiency syndrome (AIDS) epidemic we expect such cases to be more seen and here we report one case.

A 30 - year old Libyan married man presented with 4 months history of scaling and hyperpigmentation of the skin. No history of itching or fever. He reported dry cough but he denied diarrhea or significant weight loss. He is a known case of HIV infection for 8 years related to intravenous drug abuse (IVDA). He was living alone after being neglected and takes baths very rarely.

His general examination was un-remarkable except for excessive scaling of the skin of the upper and lower limbs, being more marked on the distal parts with involvement of the palms and soles taking the form of gross thick hyperkeratotic layers (Figure 1). There was hyperpigmentation of the underlying and nearby skin. The nails were long and show sub-ungual debris. There was

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Figure 1



Figure 2

excessive white scaling over the forehead. The rest of his examination was normal except for few scattered rhonchi in the chest.

His investigations showed moderate pancytopenia (Hb 9.7gm/dl, WBC. 3200cells/mm³, platelets 141000/mm³) and lymphopenia (900 cells/mm³). A subungual scraping showed *S. scabiei*. No viral load for HIV or CD4 cell counts were available. The enzyme linked immunosorbent assay (ELISA) test for HIV was positive in two serum samples.

The diagnosis of Norwegian scabies was made and treatment with 10% sulphur was started daily for five days and repeated every 7th day thereafter. A marked improvement of the scaling by the 8th day was apparent except for those on the palms and soles which responded to a course of 3% salicylic acid and Betamethasone ointment (Figure 2). The patient was discharged in a good condition and he came back after two weeks in a much better state.

DISCUSSION

Norwegian scabies is a severe form of scabies affecting immuno-suppressed patients

like those with AIDS, Down's syndrome, physically handicapped patients, and mentally retarded patients. It is characterized by large warty crusts that form on the hands and feet with irregular thickening and fissuring. The nails are thickened and discolored with accumulation of debris beneath them. Occurring erythema and scaling of the skin affect the face, neck, scalp and trunk. Itching is usually absent or slight except in some cases where it may be severe.

The parasite is present in enormous numbers in between the layers of keratin and is shed to the environment in big numbers. The definitive diagnosis of scabies requires the demonstration of the mite or its eggs in the skin or sub-ungual scrapings (4).

Treatment of scabies consists of the use of one of the commonly used agents like benzylbenzoate and tetmozol which are used topically and Ivermectin which is being more widely used in a single oral dose (5). Sulphur preparations are being used topically in a concentration of 2.5 - 10% applied thoroughly to the skin from the neck to the feet daily for 5 days and repeated as required. Antihistamines are used to alleviate itching either topically or systemically.

This case was reported because of its rarity and because of its occurrence in HIV-infected patient. Because of the important whitish scaling the disease should be differentiated from psoriasis which can occur in HIV-positive patients.

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