### **NORWEGIAN SCABIES**

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# **Abstract:**

Norwegian scabies is a special type of scabies, which is a skin infection caused by Sarcoptes scabiei. Rare and highly contagious, it mostly affects immunodeficient patients who are also elderly and institutionalized. Physically, Norwegian scabies presents erythematosus rash with scabs and hyperkeratotic plaques on the hands, feet, face, scalp and trunk. The aim of this paper is to present the skin injuries characteristic of this disease, diagnosis and treatment.

Keywords: norwegian scabies, diagnosis, treament

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#### Case

87 years old female patient, living in a nursing home, presenting mental deterioration who attended a consultation because of a 4 month old priuritic rash, presenting scabs and hyperkeratonic plaques (**Fig. 1**) in the scalp, palms and soles (**Fig. 2**). When scarifying the scabs, we observed, through a microscope using potassium hydroxide stain at 10%, the sarcoptes morphology. Leading to a diagnosis of Norwegian scabies. The patient's treatment included oral ivermectin with topical Permethrin 5%, and lead to a complete healing of the injuries. Contacts were treated with oral ivermectin.



Figura 2. Hyperkerastosis on the hand



Figure 1. Lower limbs affected by morbiliform eruption.

# **Discussion**

Norwegian scabies is a special type of scabies that was firstly described by Danielssen and Broca in leprosy patients, in Norway in 1848. This skin infection caused by *Sarcoptes scabiei*, it is rare and highly contagious, and it mostly affects immunodeficient, institutionalized patients who have mental deterioration and are elderly [1]. The main source of contagion is direct contact with an infected patient's skin or indirect contagion because of a high parasitic charge. Physically, Norwegian scabies presents erythematosus rash with scabs and hyperkeratotic plaques on the hands, feet, face, scalp and trunk. The main symptom is generalized priuritus, particularly during night time. Diagnosis can be established through a physical exam that demonstrate the typical distribution of the skin injuries [1] and the confirmation with a diagnostic test [3], in this particular case the scarifying.

Although this treatment is not standardized, we followed the recommendations of the Center for Disease Control and Prevention (USA). This recommendations include combining daily topical Permethrin 5% during 7 days, and 2 times a week later on until the condition is treated and oral doses of ivermectin (200 mcg/kg/dose) applied during the days 1, 2, 8, 9, and 15 [4]. Close contacts to the patients must receive treatment.

The clinical suspicion is important for making a diagnosis and establishing the right treatment, achieving the healing of the patient and the shortening of the contagion cycle.

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