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CASE REPORT

NORWEGIAN SCABIES IN ELDERLY DIABETIC PATIENT : A CASE REPORT

ABSTRACT

Norwegian scabies is a highly contagious skin infestation caused by the ectoparasite *Sarcoptes scabiei*, which mainly affects immunosuppressed and geriatric individuals. Clinically, it may simulate various dermatoses. We report herein a 70 year old man with diabetes mellitus who developed palmoplantar hyperkeratosis, with widespread excoriation over the trunk and extremities. His complaints had been present for about ten years. The lesions were crusted scabies with absence of itch sensation due to peripheral neuropathy and diabetes mellitus for 30 years. Microscopic examination of the skin scales with potassium hydroxide revealed numerous scabies mites and eggs. Topical 5% permethrin cream therapy was prescribed as 2 treatments, with each treatment applied once a week

Key Words: Scabies; Diabetic Neuropathies; Keratoderma, Palmoplantar.



OLGU SUNUMU

YAŞLI DİYABETİK HASTADA NORVEÇ UYUZU OLGUSU

Öz

Norveç uyuzu bir ektoparazit olan *Sarcoptes scabiei*'nin neden olduğu, yüksek bulaştırıcılığı olan bir enfeksiyondür. Klinik olarak birçok dermatozu taklit edebilir. Biz burada yaklaşık on yıldır şikayeti devam eden vücudunda yaygın ekskoriyasyonları ve palmoplantar hiperkeratozu olan 70 yaşında diyabetik bir erkek hasta sunuyoruz. Otuz yıldır olan diyabete bağlı oluşan periferik nöropati nedeniyle krutlu uyuz lezyonları kaşıntısız idi. Potasyum hidroksit ile alınan deri örnekleri mikroskopik incelemesinde çok sayıda uyuz akarları ve yumurtalarını saptandı. Birer haftalık Topikal% 5 permetrin krem tedavisi iki kür olarak hastaya olarak reçete edildi.

Anahtar Sözcükler: Uyuz; Diyabetik Nöropati; Palmoplantar Hiperkeratoz.



INTRODUCTION

Crusted scabies (Norwegian scabies) is an ectoparasitic infestation caused by *Sarcoptes scabiei*, which is rare and highly contagious (1). Although it mainly affects immunocompromised and geriatric individuals, it may also affect individuals who have normal immune systems (2,3). It may be seen in various situations such as immunodeficiency of the host or reducing of itch sensation (4).

We here present a case of crusted scabies with absence of itch sensation due to peripheral neuropathy and diabetes mellitus for 30 years.

CASE

When a 70-year-old male was an inpatient in the department of internal medicine owing to a diabetic leg ulcer and for management of irregular blood glucose levels, he was consulted to our clinic because of itchy lesions on his trunk, face and extremities, which he had had for 10 years. He had also had hypertension, diabetes mellitus type 2, and coronary artery disease for 30 years, and a history of cured tuberculosis. On dermatologic examination, there were widespread erythematous and excoriated papules on his trunk and other parts of his body, along with hyperpigmentation due to old lesions (Figure 1). Although the itching was widespread, he had no itching of his hands and feet because of peripheral neuropathy. Intense hyperkeratosis was observed on his palmar regions (Figure 2,3).

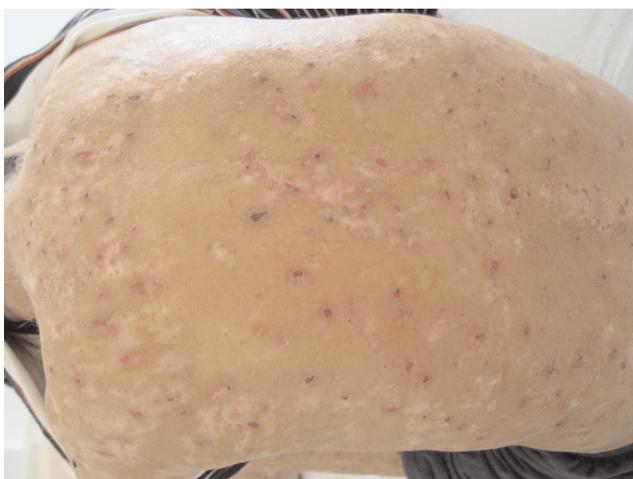


Figure 1— Diffuse lesion on the back.



Figure 2— The lesions on the extremities.



Figure 3— The mite of scabies.

The scrapings sample, which was obtained from the lesions on the patient's palmar regions, was prepared with 10% potassium hydroxide. On direct microscopic examination, a number of mites, eggs, and feces were detected (Figure 3). We diagnosed the patient with crusted scabies based on these findings. Topical 5% permethrin cream therapy was prescribed as 2 treatments, with each treatment applied once a week.

DISCUSSION

Crusted scabies (Norwegian scabies) is a rare, serious infestation of *Sarcoptes scabiei* (5). Crusted scabies is especially seen in immunocompromised, mentally retarded, malnourished or geriatric patients (2). The risk factors for crusted scabies are low economic status, bad hygiene (6), age (7), diabetes mellitus (8), neuropathy, serious arthropathies, mental retardation and psychiatric diseases (9). Decreased immunoresponse causes hyperinfestation and absence of itching. Itching is important in the transport of parasites and destruction of



tunnels (9). For this reason, the number of parasites may exceed one million (2) and such patients have a high infection potential by direct contact (2).

Absence of itching, due to peripheric neuropathy related to diabetes mellitus, caused the progress of disease in our patient.

Involvement of the palmoplantar region and the face are first in importance, and the nails are distorted and thick (2). Typical skin lesions are tunnels, papules, excoriations and sometimes vesicles (6). The reaction, provoked by massive infestation, causes crusts and a form of hyperkeratotic lesion (9). It mimics psoriasis, seborrheic dermatitis, Darier disease, dermatitis herpetiformis and drug reactions (9). Our patient had both typical skin lesions, such as papules and excoriation on the trunk, and crusts and hyperkeratosis, located on the palmoplantar regions. The diagnosis must be made from samples obtained from the nails, finger webs, and tunnels. The samples are prepared with 10% KOH and parasites, eggs and feces must all be seen on microscopic examination for the diagnosis. If a diagnosis is not possible using this method, a biopsy of the stratum corneum must be performed, with parasites detected in the tunnels (10).

The treatment of crusted scabies is very difficult because of hyperkeratotic skin, involvement of the nails and the high parasitic load. Topical keratolytics, topical scabicide agents and oral ivermectin may be used to treat the disease (2). Keratolytic agents are useful for the removal of hyperkeratotic skin and the penetration of drugs (5).

The patient must be isolated and the patient's surroundings must be disinfected (2). Suspicion of disease and early diagnosis are very important for preventing the spread of disease and providing relevant treatment (9).

The diagnosis of our patient was delayed for a long time. The wrong diagnosis may have serious results such as the spreading of infestation, septicemia, superinfection of lesions and erythroderma (6).

Our patient had diabetes mellitus and neuropathy, and his diagnosis had been delayed for 10 years. We present our patient to emphasize that the diagnosis of crusted scabies must be considered in geriatric, diabetic or neuropathic patients who have had hyperkeratosis or resistant pruritus for a long time.

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