

Scabies Incognito Presenting as a Subcorneal Pustular Dermatitis-like Eruption

Subkorneal Püstüler Dermatozis Erupsiyonunu Taklid Eden Bir Uyuz Vakası

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ABSTRACT

Scabies is a common parasitosis of the skin caused by *Sarcoptes scabiei hominis*. This infestation occurs in all geographic areas and across all age groups, races, and social classes. Poor economic conditions and lack of proper hygiene are risk factors for the disease. Subcorneal pustular dermatosis is characterized by numerous relapsing pustular eruptions on normal or mildly erythematous skin. The pustular eruption typically involves the flexural sites of the trunk and proximal extremities with pruritus and irritation symptoms. The pustules are superficial and rupture easily, resulting in a superficial crust, and they form annular, circinate, or serpiginous patterns. Here we reported a case of scabies incognito in an elderly woman that presented as subcorneal pustular dermatosis-like eruption. We assumed that this case could be reported because it is an unusual event among the general population. In conclusion, the differential diagnoses of skin diseases should be considered when diagnosing scabies. Thus, unnecessary therapy and contamination among people can be prevented. (*Türkiye Parazitoloj Derg* 2015; 39: 244-7)

Keywords: Subcorneal pustular, dermatosis, scabies

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ÖZ

Uyuz *Sarcoptes scabiei hominis*'in neden olduğu yaygın bir cilt parazitozudur. İnfestasyon tüm coğrafi bölgelerde, tüm yaş grupları, ırklar ve sosyal sınıflarda oluşabilir. Kötü ekonomik durum ve uygun hijyen eksikliği hastalık için risk faktörleridir. Subkorneal püstüler dermatozis normal veya hafif eritemli cilt üzerinde çok sayıda nükseden püstüler erupsiyonlarla karakterizedir. Püstüler erupsiyon genellikle gövdenin kıvrımlı bölgeleriyle, proksimal ekstremiteelerde kaşıntı ve irritasyon belirtileri ile görülür. Yüzeysel ve kolayca yırtılan püstüller yüzeysel bir kabuklanma ile sonuçlanır ve yuvarlak, halka şeklinde ya da yılanvari bir desen oluşturabilir. Biz burada yaşlı bir hastada subkorneal püstüler dermatozis erupsiyonunu taklid eden gizli bir uyuz vakasını sunduk. Bu olgu, genel nüfus içinde alışılmadık bir olay olduğundan bildirmek için uygun olduğunu düşünmekteyiz. Sonuç olarak, cilt hastalıklarının ayırıcı tanısında uyuz göz önünde bulundurulmalıdır. Böylece, gereksiz tedavi ve insanlar arasında bulaşma önlenir. (*Türkiye Parazitoloj Derg* 2015; 39: 244-7)

Anakhtar Kelimeler: Subkorneal Püstüler, dermatozis, uyuz

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INTRODUCTION

Scabies is a common parasitosis of the skin caused by *Sarcoptes scabiei hominis*. This infestation occurs in all geographic areas and across all age groups, races, and social

classes. Poor economic conditions and lack of proper hygiene are risk factors for the disease (1). Scabies is characterized by pruritic papular lesions, excoriations, and burrows. Cutaneous lesions are symmetrical, typically involving

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the finger webs, elbow flexures, wrists, axillae, areolae, umbilicus, lower abdomen, genitals, and buttocks. Vesicles or pustules containing the mite may be noted at the end of the burrow, in infants and children in particular (2). The topical or systemic use of corticosteroids may mask the clinical picture of scabies and lead to uncommon presentation as scabies incognito, which can easily be mistaken for other skin diseases (3). Host response can be modified by immunosuppressive therapy (4). Subcorneal pustular dermatosis is characterized by numerous relapsing pustular eruptions on normal or mildly erythematous skin. It is a pustular eruption typically involving the flexural sites of the trunk and proximal extremities with pruritus and irritation symptoms. The pustules are superficial and rupture easily, resulting in a superficial crust and form annular, circinate, or serpiginous patterns (5).

Here we reported a case of scabies incognito in an elderly woman presenting as a subcorneal pustular dermatosis-like eruption. We assumed that this case could be reported because it is an unusual condition for the general population and the differential diagnoses of skin diseases should be kept in mind when diagnosing scabies; thus, unnecessary therapy and contamination among people can be prevented.

CASE REPORT

A 75-year-old female patient presented to our outpatient dermatology clinic with pruritus and erythematous blistered plaques. She had been suffering from pruritus in her head and scalp. From her medical history, it was found that she was treated with antihistaminic drugs and steroid ointments (0.05 clobetasol propionate 50 g per week for 3 weeks) and that she was diagnosed with xerosis and pruritus previously, but her complaints got worse despite the medications. Physical examination showed erythematous annular, serpiginous, and vesiculopustular lesions; itching scars; and excoriated papules around the axillae and trunk (Figure 1, 2). Scaly lesions were present at different parts on her body. According to her medical records and personal communication, she was a healthy person overall. Her routine biochemical analyses and complete blood count were normal. A



Figure 1. Pustular eruption tends to coalesce and form annular and serpiginous patterns involving the flexural sites of the trunk and proximal extremities

microscopic sample from her desquamate erythematous plaque revealed thousands of sarcoptes and their eggs in any field of the sample. Squams of the patient's scalp were filled with mites (Figure 3, 4). Though a large number of mites were seen, the pruritus was very weak. The patient was diagnosed as having scabies incognito and was recommended keratolytic ointments twice daily and 5% topical permethrin lotion three times a week for two weeks. However, she did not come for follow-up control examinations. Written informed consent was obtained from the patient for the publication of this case report.

DISCUSSION

Scabies, caused by *Sarcoptes scabiei hominis*, is a polymorphic disease that can cause protean cutaneous manifestations (6). Environmental factors hastening spread include overcrowding, delayed treatment of primary cases, and lack of public awareness on the condition. The spread of the infestation among family members and other close contacts is common (7). Immunosuppressive therapy may mask the clinical picture of



Figure 2. Erythematous annular and serpiginous vesiculopustular lesions



Figure 3. Two sarcoptes are noted in the center of the field

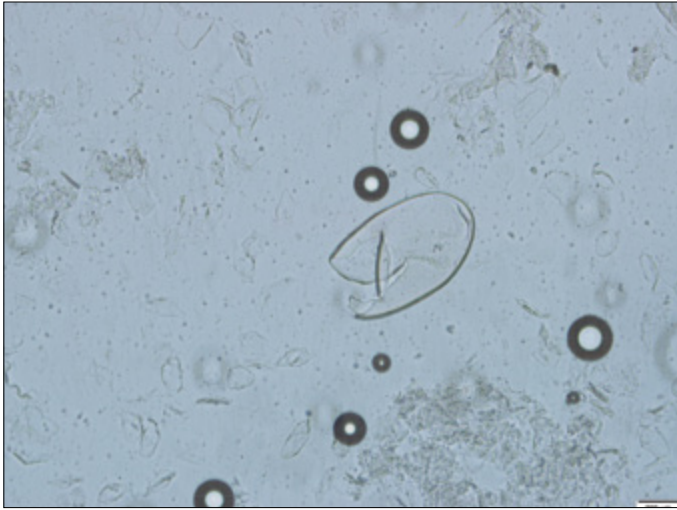


Figure 4. A sarcoptes egg is noted in the center of the field

scabies and lead to uncommon presentations, e.g., scabies incognito, which can easily be mistaken for other skin diseases. In addition, modified by therapy of the host response challenge diagnose. Crusted scabies has also been described in patients whose immune defenses are impaired either as a result of disease or therapy (4). Usually, it is found in HIV patients, the elderly, or otherwise immunosuppressed individuals (8). Crusted scabies also results from the inappropriate use of potent fluorinated topical steroids. Such individuals may experience minimal pruritus despite their infestation with a large number of mites and are highly contagious. In infant, elderly, and immunocompromised hosts, all skin surfaces could be involved, including the scalp and face (2). Head and scalp involvement with unapparent itching was observed in our case, which is different from classical scabies.

Mites cause marked hypersensitivity reactions, but little is known about specific scabies mite molecules in such immunological responses (2, 8). It is known that locally applied corticosteroids alter the skin immune system; accordingly the inflammatory response is reduced and cellular immune response is suppressed (9). Topical corticosteroids also block the production and release of cytokines such as interleukins-1, 2, 3, and 6 and tumor necrosis factor-alpha. The use of topical steroids can also inhibit phagocytosis and the stabilization of lysosomal membranes of phagocytizing cells (10). Thus, pro-inflammatory response and phagocytosis blockade by clobetasol propionate may not favor the control of a scabies infestation. Scarcity of experiencing pruritus suppressed by topical steroids may also be of importance. Diminished sensitivity to mites reduces itching, which leads to less scratching and destruction of burrows (2). Atypical clinical appearance is probably due to a physical inability to scratch in response to itching. However, we assume that the excessive proliferation of parasites and inflammation may be stronger than the suppression of the immune system by topical steroids, which most probably was the case in the clinical symptoms seen in the present patient. Scabies could be confused with atopic contact dermatitis, autosensitization, prurigo nodularis, papular urticaria, and nummular dermatitis, as well as arthropod bites, pyoderma, dermatitis herpetiformis, and bul-

lous pemphigoid. Scabies can clinically and histologically also resemble Langerhans cell histiocytosis (2, 8). If scabies is undiagnosed or misdiagnosed, uncontrolled proliferation of mites for extended periods in hyperkeratotic scales could cause the rapid spread of the illness (11). The delayed diagnosis of scabies may increase the chances of bacterial superinfection in patients (6). For the diagnosis, a burrow is gently scraped off the skin, and the material is placed in a drop of 10% potassium hydroxide or mineral oil on a microscope slide and examined under a light microscope. The diagnosis could also easily confirmed histopathologically by observing mites, eggs, and fecal pellets under direct microscopy (2).

Other non-invasive techniques such as epiluminescence microscopy and high resolution videodermoscopy allow examination of the skin (2, 11). In the present case, thousands of mites were present under the scales when they were microscopically examined.

The first step for the treatment of superficial scales is removal with topical keratolytics. For classical scabies treatment, benzyl benzoate, permethrin, lindane, or ivermectin is repeatedly administered (2, 4, 8). We administered permethrin lotion three times a week for two weeks after topical keratolytics; however, the results of the treatment were not known as the patient did not show for a follow-up control examination.

CONCLUSION

We present this case as a different clinical picture from classical scabies, which could be unknown to health care professionals, though it is encountered rarely and generally misdiagnosed. To our knowledge, this is the first case in an immunocompetent elderly patient presenting with a clinical picture of a subcorneal pustular dermatosis, demonstrating the necessity of microscopic examination of the skin in patients with vesiculopustular lesions.

Informed Consent: Written informed consent was obtained from the patient.

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