VIA MEDICA

CASE STUDY

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Similar or different? A case report of confusing coexistence of tinea and psoriasis

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ABSTRACT

Psoriasis is one of the most common dermatoses worldwide. It is a chronic, immunologically mediated, inflammatory disease associated with the polygenic predisposition and stimulated by environmental factors. The most characteristic skin lesions include well-demarcated, erythematous plaques with silvery-white scales. Psoriasis is often misdiagnosed with other skin conditions, particularly dermatitis and fungal infections. Their coexistence is also possible.

We present a case of a 23-year-old patient with a history of recurrent skin lesions with accompanying mild pruritus. The first lesions were diagnosed as allergic dermatitis and successfully treated with topical steroids several times. Three years after the first episode, the exacerbation of skin lesions resistant to previous treatment occurred. The direct mycological examination was positive. Fungal cultures indicated *Trichophyton verrucosum* and *Candida spp.* The patient was treated systemically with terbinafine and topical ciclopirox olamine. Although clinical improvement was achieved after a few weeks, still partial activity with papules within the residual lesions remained. The performed skin biopsy ruled out fungal infection and pointed to psoriasis. The antipsoriatic treatment resulted in remission.

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Key words: psoriasis, tinea incognito, biopsy

INTRODUCTION

A correct preliminary diagnosis permits an earlier start of appropriate treatment and improves outcomes. Misdiagnosis and inappropriate therapy can produce temporary remission and promote atypical tinea in the case of a fungal infection. Correct diagnosis is critical when several conditions coexist. In highly doubtful cases, in recurrence or resistance to treatment, a skin biopsy is vital for a definitive diagnosis and the initiation of appropriate treatment.

CASE STUDY

A 23-year-old male was admitted to the clinic for diagnosis and treatment of recurrent skin lesions. The patient's family history revealed no skin diseases or other diseases of social importance. The first erythematous desquamative skin lesions appeared in the nipple area, lumbosacral region, and lower abdomen three years before admission to the clinic. They were accompanied by moderate itching and burning. Allergic dermatitis diagnosed at the time was treated with a topical glucocorticosteroid and showed improvement. Over the next two years, the skin lesions recurred twice, and, as before, topical treatment resulted in clinical remission. Six months after starting work in an agricultural machinery factory, where the patient came into contact with customers working on farms, the skin lesions worsened, and the patient was eventually admitted to the clinic for diagnosis and treatment. On admission, well-demarcated erythematous papular and erythematous desquamative lesions accompanied by moderate pruritus and burning in the nipples, upper limbs, lumbosacral region, and lower abdomen were observed (Fig. 1, 2, 3). No significant abnormalities were found in laboratory tests. The patient was evaluated

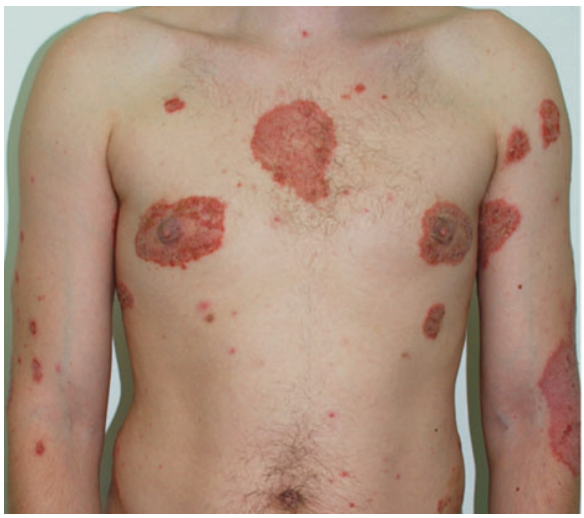

Figure 1. Skin lesions on the chest and upper extremities on admission

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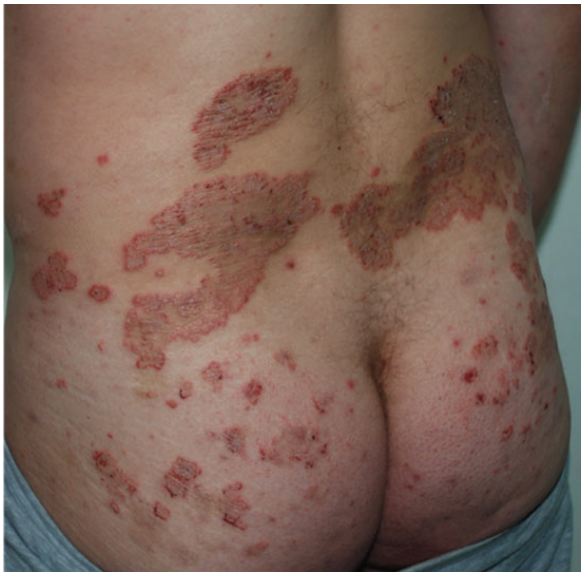

Figure 2. Cutaneous lesions in the lumbosacral region on admission

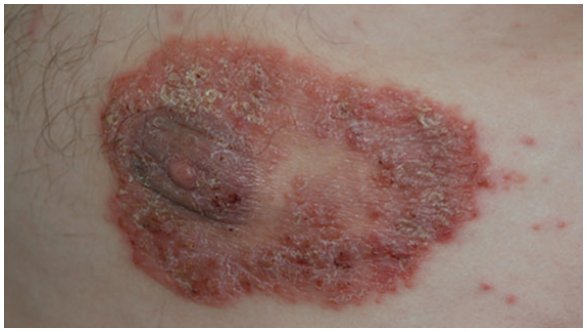

Figure 3. Erythematous papular lesions with desquamation within the nipple in a patient on admission

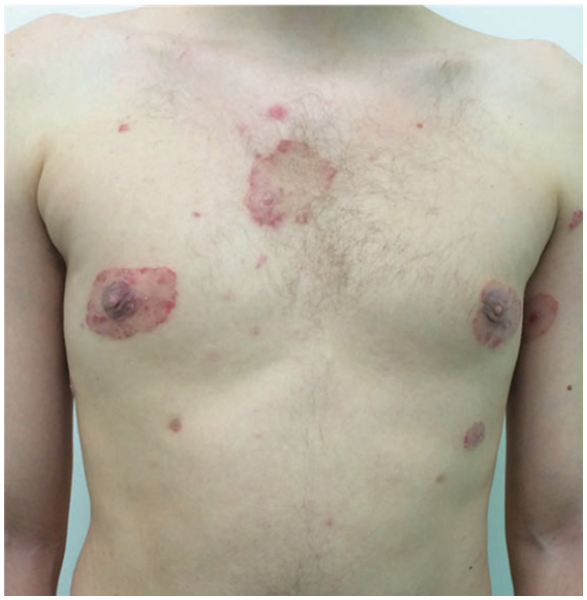

Figure 4. Skin lesions on the chest in a patient after antifungal therapy

for fungal infection. The direct mycological examination was positive, showing the presence of mycelium and numerous medium spores. Fungal cultures revealed *Trichophyton verrucosum* and *Candida spp*. Antifungal therapy with systemic terbinafine and topical ciclopirox olamine was introduced. Clinical improvement was achieved, however, without complete remission of the skin lesions (Fig. 4, 5). Follow-up direct mycological examination was negative, with no mycelium found. Suspecting the coexistence of another dermatosis, a skin biopsy was performed, which ruled out a fungal infection. The microscopic picture was consistent with psoriasis. Classical topical psoriasis treatment with dithranol was administered, which led to complete clinical remission (Fig. 6, 7). The patient was discharged home in overall good condition, with a recommendation for further follow-up and treatment at the dermatology outpatient clinic.

DISCUSSION

Psoriasis is recognized as a systemic condition that can lead to the development of psoriatic arthritis, cardiovascular complications, or lipid metabolism disorders in many patients [1]. Nevertheless, the primary manifestation of psoriasis is chronic and recurrent skin lesions [2]. Skin eruptions often appear symmetrically on the proximal surfaces of the elbows and knees, the scalp, and the lumbosacral region. In classic cases, evaluation of the morphology and location of the skin lesions is sufficient to establish the diagnosis. In doubtful cases, a skin biopsy with histological evaluation is the definitive test.

In the case of the patient described, it can be suspected that the primary skin lesions diagnosed as eczematous changes may have been psoriatic lesions that went into remission after topical glucocorticosteroid therapy. In addition, this treatment masked the clinical picture of a subsequent fungal skin infection, which the patient was very likely to have acquired at work. The coincidence of the two diseases was not apparent on admission, as the skin lesions were present in the same areas. Therefore, a definitive diagnosis of psoriasis was possible after tinea had been treated. This represented an additional diagnostic difficulty compared with other cases reported in the literature in which psoriasis had been previously diagnosed [3, 4]. According to the literature, *tinea incognito*, so-called latent tinea, follows the use of both glucocorticosteroids and calcineurin inhibitors [5, 6]. Its identification without mycological examination is often impossible because it mimics other dermatoses: *lupus erythematosus*, eczema, rosacea (especially of the face), impetigo, psoriasis, purpura, seborrhoeic dermatitis and lichen planus [7]. For this reason, the term 'new imitator' has been proposed for it, joining the other two entities so defined — drug-induced skin eruption and syphilis [8]. Although the topic of *tinea incognito* is not

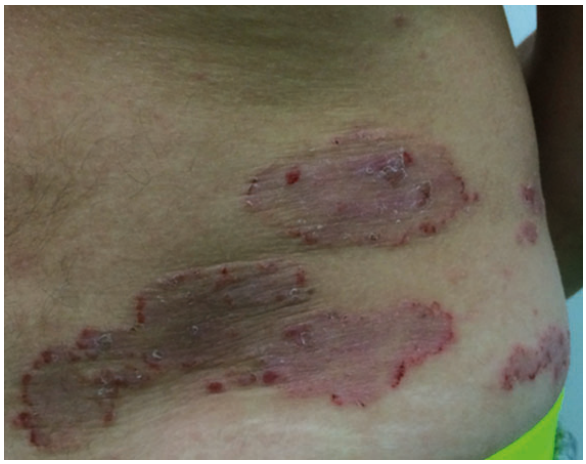

Figure 5. Skin lesions in the lumbosacral region after antifungal treatment

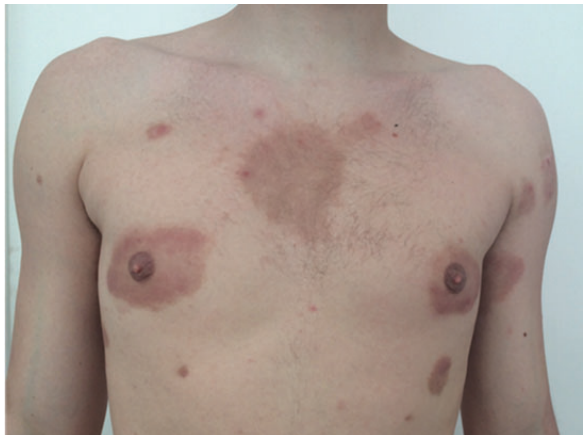

Figure 6. Skin lesions after psoriasis treatment

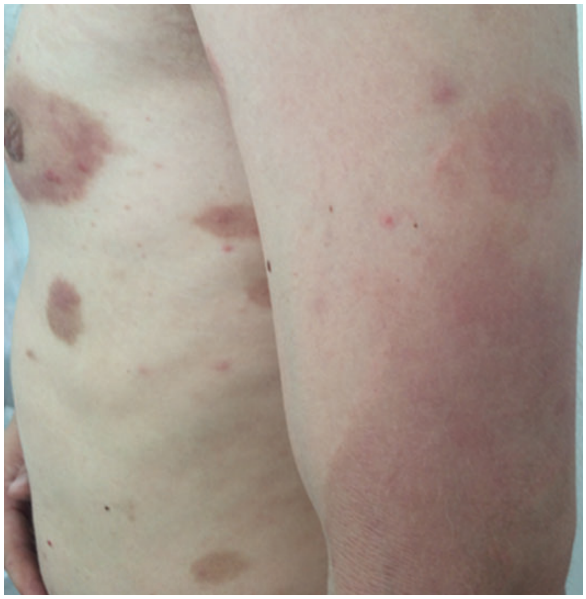

Figure 7. Skin lesions after psoriasis treatment

new to the literature, it still poses diagnostic difficulties for many specialists due to its unusual nature. Therefore, its occurrence is worth bearing in mind, especially in patients receiving long-term topical glucocorticosteroid therapy [9]. In addition, attention should be drawn to the problem of abuse of these topical agents, both prescribed by doctors and available over the counter [10].

Niedźwiedź et al. [11] emphasized the appropriateness of seeking to identify the etiology of fungal infection and also treating sick animals that are often the source of fungal infection. This is to prevent recurrent infections and protect against increasing morbidity and prevent a major epidemiological problem.

The case presented here demonstrates that misdiagnosis, leading to inappropriate therapy, can offer temporary remission. However, as a consequence, this makes it difficult to establish the correct diagnosis at a later stage. A correct preliminary diagnosis contributes to better treatment outcomes, so the critical role of the availability of a mycological examination and skin biopsy should be emphasized, which in doubtful cases, in recurrences or resistance to therapy, are essential to establishing a definitive diagnosis and starting appropriate treatment.

Conflict of interest

The authors declare no conflicts of interest.

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