

TINEA FACIEI PRESENTING BUTTERFLY ERYTHEMA IN A BOY

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Tinea faciei is the most frequently misdiagnosed entity among cutaneous fungal infections. The atypical clinical features support the separation of this disease from tinea corporis. This often lacks a distinct raised scaly border, and may mimic a photodermatosis such as lupus erythematosus or dermatomyositis. Other photodermatoses to consider include polymorphous light eruption, contact dermatitis, and rosacea. In this article, a 9-year-old boy with tinea faciei presenting butterfly rash was reported because of its rarity.

Key words: Dermatophytosis, tinea faciei, butterfly rash

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INTRODUCTION

Tinea faciei is a superficial dermatophyte infection limited to the glabrous skin of the face. In pediatric and female patients, the infection may appear on any surface of the face. In men, the condition is known as tinea barbae when a dermatophyte infection of bearded areas occurs (1). The clinical features vary considerable. Annular or circinate lesions, plaques with a raised margin, simple papular lesions, and flat patches of erythema, as well as scaling, itching and exacerbation after sun exposure may occur (1-3).

In this article, a case of tinea faciei presenting with butterfly rash is being reported because of its unusual presentation.

CASE

A 9-year-old boy presented with a butterfly rash on the cheeks first noted two weeks ago. The flat patches of erythema were not having a distinct raised scaly border (Fig 1). Lesion was found on the trunk or the extremities. He did not report any topical or oral medication before and after the lesions appeared. Physical examination of the patient did not reveal any other pathological signs. The differential diagnosis was lupus erythematosus or tinea faciei. Direct microscopic examination (with 20% potassium hydroxide) of scales obtained by scraping of the rash revealed numerous septate and ramified hyphae. Thus, the patient was diagnosed with tinea faciei. Treatment with oral ketoconazole and topical terbinafine for 4 weeks resulted in clinical clearance of the rash.

DISCUSSION

Tinea faciei is a relatively uncommon superficial dermatophyte infection limited to the glabrous skin of the face. It can be found worldwide, but has a predilection for tropical humid climates (4). The causative agent varies according to the geographic region. In Asia, *Trichophyton mentagrophytes* and *T. rubrum* are the most frequent etiologic agents (1,5). Infection results either from direct contact to an external source, for example a domestic animal, or there may be secondary spread from pre-existing tinea of another body site (4). It may appear in persons of any age, with 2 peaks of disease incidence. One peak involves children, who constitute a large group of patients because of their frequent direct contact with pets. The other peak occurs in those aged 20-40 years (1,4). Approximately 19% of all pediatric superficial fungal infections are tinea faciei (1).

Tinea faciei is the most frequently misdiagnosed disease amongst cutaneous fungal infections due to its variable appearance. As many as 70% of patients with tinea faciei are initially misdiagnosed as having other dermatoses (4). In tinea faciei lacking of a distinct raised scaly border, may mimic a photodermatosis such as lupus erythematosus or dermatomyositis as in our case. However, most tinea faciei lack the follicular plugging and poikiloderma of connective tissue diseases. Other photodermatoses to consider include polymorphous light eruption, rosacea, and contact dermatitis (6). Patel and Miss found that 50% of patients with tinea faciei were misdiagnosed as having a photosensitive skin disorder in a study (7). The differential diagnosis of tinea faciei also includes seborrheic dermatitis, cutaneous candidiasis,

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Figure 1. Tinea faciei lesions presenting with butterfly rash in our case

atopic dermatitis, bacterial infections, granuloma annulare, perioral dermatitis, pityriasis alba, pityriasis rosea, sarcoidosis, Aspergillus infections under applied tape in neonates, and Demodex folliculitis (4).

A high index of suspicion, along with a KOH microscopy of scrapings from the leading edge of the skin change, may help in establishing the diagnosis (5). Culturing allows the identification of the causative pathogen, but is time-consuming and expensive. Histologic examination can be performed as well. Routine histopathologic evaluation with hematoxylin and eosin staining may reveal fungal elements, but periodic acid–Schiff (PAS) staining is recommended. Hyphae may be detected in the stratum corneum, and *T. rubrum* or *T. verrucosum* may invade hair follicles. A mixed cellular inflammatory infiltrate is usually present in the papillary dermis, and neutrophils may extend into the layers above. The histopathology is variable, however, and can range from a mild focal spongiosis to chronic spongiotic psoriasiform dermatitis with a mixed dermal inflammatory infiltrate (4). A case of tinea faciei histologically mimicking cutaneous lupus has been reported (8).

The prognosis of tinea faciei is good. It usually responds to azoles within 4-6 weeks and to allylamines within 1-2 weeks (4). Treatment usually consists of measures to decrease excessive skin moisture. Systemic therapy may be necessary because of widespread lesions caused by multiple inoculations (2,9). Re-evaluation of the diagnosis is important if improvement does not occur after 4 weeks of therapy.

Complications of tinea faciei are unusual, but include scarring and abscess formation. Identification of the source and treatment of infected pets are important in preventing recurrent infection (4).

Misdiagnosed tinea faciei often leads to a delay in appropriate therapy. The use of topical steroids may lose some of its characteristic features. Often referred to as tinea incognito, these patches or plaques have diffuse erythema, scale, scattered pustules or papules, and may have brown hyperpigmentation. Occasionally, tinea faciei simultaneously occurs with other dermatophyte infections, especially tinea capitis and tinea corporis (4).

As a result, in patients with erythematous lesions of the face, a diagnosis of tinea faciei should also be considered.

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