

Tinea faciei: a report on four cases

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SUMMARY

Four cases of tinea faciei that were observed at the Department of Dermatology of Charles Nicolle Hospital in Tunis are reported. All patients were females, ages 54 (patient 1), 38 (patient 2), 30 (patient 3), and 50 (patient 4). The lesions lasted 1 year, 2 months, 4 months, and 1 month, respectively. Tinea faciei was initially suspected in three patients, whereas for the second patient eczema was initially suspected. She was first treated topically with corticosteroids leading to exacerbation. Through mycological examination, *Trichophyton rubrum* was isolated in three patients, but was negative in patient 2. Three patients recovered completely after one month of griseofulvin associated with topical terbinafine. Patient 3 was topically treated because she was pregnant. Erythematous lesions of the face must be checked for fungi.

Introduction

Tinea faciei is a relatively uncommon superficial dermatophyte infection limited to the glabrous skin of the face. It is frequently clinically misdiagnosed due to its variable appearance. Differential diagnoses include discoid erythematous lupus, psoriasis, acne, rosacea, eczema, and other erythematous lesions of the face.

Materials and methods

Mycological investigation included direct microscopic examination and culture. We used a potassium hydroxide (KOH) preparation for direct examination and Sabouraud agar for the culture. After 3 to 4 weeks,

the final identification was based on findings of morphological and microscopic analysis of the cultures.

Cases reported

We report four cases of tinea faciei occurring in adult females reported at the Department of Dermatology of Charles Nicolle Hospital of Tunis. The patients' ages were 54 (patient 1), 38 (patient 2), 30 (patient 3), and 50 (patient 4; Fig. 1, 2, 3, 4). The duration of the lesions was 1 year, 2 months, 4 months, and 1 month, respectively. Tinea faciei was initially suspected in three patients, whereas for the second patient an eczema-like eruption around the mouth was initially misdiagnosed

KEY WORDS

tinea faciei, adult females, *Trichophyton rubrum*, treatment, Tunisia



Figure 1. Patient 1.



Figure 3. Patient 3.

as eczema and unsuccessfully treated with topical corticosteroids, leading to exacerbation.

Mycological examination revealed branched hyphae in three patients, but was negative in patient 2. Through culture, *Trichophyton rubrum* was isolated in three patients, whereas it was negative in patient 2. Three patients, including patient 2 (Figure 5), recovered completely after 1 month of griseofulvin (1g/day) associated with topical terbinafine. Patient 3 was treated only topically because she was

pregnant. We summarize the four observations in Table 1.

Discussion

Tinea faciei accounts for 3 to 4% of all cases of tinea corporis (1). It occurs worldwide but has a predilection for tropical humid climates (1).



Figure 2. Patient 2.



Figure 4. Patient 4.

Table 1. Clinical and mycological data of patients.

sex	patient 1 F	patient 2 F	patient 3 F	patient 4 F
age (years)	54	38	30	50
Preceding conditions	–	–	diabetes mellitus, high blood pressure, pregnancy	–
duration of lesions	1 year	2 months	4 months	1 month
clinical symptoms	circinate erythematous plaque (left cheek), pruritus onychomycosis of the first left fingernail	facial and perioral erythema, pruritus onychomycosis of the first right fingernail	face: circinate erythema (right) legs: tinea onychomycosis: first right finger and all toes, pruritus	erythematous and scaly plaque of the left side of the face and forehead, pruritus
mycological examination	face and nail microscopy: branched hyphae culture: <i>Trichophyton rubrum</i>	face and nail microscopy and culture: negative	face and nail microscopy: branched hyphae culture: <i>Trichophyton rubrum</i>	face microscopy: branched hyphae culture: <i>Trichophyton rubrum</i>
treatment	griseofulvin 1g/day + topical terbinafine × 1 month	topical cortisone → exacerbation, griseofulvin 1g/day + topical terbinafine × 1 month	topical terbinafine	griseofulvin 1g/day + topical terbinafine × 1 month
outcome	complete recovery	complete recovery	improved	complete recovery

It may occur at any age, but two peaks may be observed: in childhood with a male prevalence, and in adults with a female prevalence (2, 3), as were our patients. Tinea faciei has also been rarely reported in neonates (4). Females are affected more frequently than males because dermatophyte infections on the bearded areas of males are often diagnosed as tinea barbae, whereas in females they are more likely to be diagnosed as tinea faciei (1). Many lesions progress over more than 6 months and even up to 2 years before they are diagnosed (3). For our four patients, the mean duration before treatment started was 4.75 months.

Thirty-six percent of cases of tinea faciei escape correct clinical diagnosis, especially if the dermatitis has been treated with topical corticosteroids (as patient 2 in our series), which modifies the clinical form of the infection (2, 5). Tinea faciei most often begins as flat, scaly macules that develop a raised border that may advance outwards in all directions, and may or may not develop papules, vesicles, and crusts. The central area becomes hypopigmented or brown and less scaly (1). Lesions may produce a burning sensation, and be pruritic or asymptomatic (1). Pruritus was present in all of our patients. Sunlight often exacerbates symptoms and tinea faciei can clinically mimic other facial dermatoses (6). Alteras et al. reviewed 100 adult cases of tinea faciei; discoid lupus erythematosus (52%), lymphocytic infiltration (15%), seborrheic dermatitis (11%), rosacea (8%), and contact dermatitis (7%) were the most frequent misdiagnoses (5). Cutaneous candidiasis, bacterial in-

fection (7), granuloma annulare, perioral dermatitis, sarcoidosis, and psoriasis (1, 2, 5) are other reported differential diagnoses.

Occasionally, tinea faciei simultaneously occurs with other dermatophyte infections, especially tinea capitis and tinea corporis (8). One study showed that in 85% of tinea faciei patients the nails were also infected by the same agent that was isolated from the face, especially the toenails (5). In our series, patients 1, 2, and 3 had onychomycosis of the fingernails, and patient 3 also had onychomycosis of all the toenails.

Mycological investigation is essential for the diagnosis of tinea faciei. This includes direct examination and culturing. The causative agent varies according to the geographic region and the potential reservoirs located in the environment (1). The dermatophytes commonly implicated are: *Trichophyton rubrum* (2, 5, 9), which was isolated in three of our patients, *Trichophyton mentagrophytes* (3, 9), and *Microsporum canis* (2, 5, 4). In our cases, we assume that tinea faciei was a result of autoinoculation from onychomycosis because *Trichophyton rubrum* was isolated in the two localizations.

The culture may be negative in 30% of cases, especially in chronic infections (1). In the case of patient 2, the direct mycological examination and culture were negative. She was classified as tinea faciei because of the good response to antifungal treatment (Fig. 5). In such cases, a histological examination can be performed. Periodic acid–Schiff (PAS) staining is recom-

mended for detecting hyphae in the stratum corneum (1). The histopathological features are variable, ranging from simple hyperkeratosis to a marked degree of epidermal spongiosis with infiltration by mononuclear cells and neutrophils (1, 9). A case of tinea faciei histologically mimicking cutaneous lupus has been reported (9).

Treatment of tinea faciei is the same as for other superficial fungal infections (1). Most cases are curable with topical antifungal treatments. These are based on azoles and allylamines. Systemic antifungal treatment is required in resistant and extensive cases (1) and long-standing infections require a longer period of treatment. Three of our patients were treated with oral griseofulvin (1 g/day) associated with topical terbinafine. One patient had only topical terbinafine, despite a diffuse

involvement, because she was pregnant. Treatment should be preceded by identification of the etiologic agent and the source of infection eliminated by checking pets to prevent recurrent infection (1). Tinea faciei usually has a good prognosis. Complications such as scarring and abscess formation (6, 10) are rarely reported. These are more likely to occur after treatment with topical steroids because of modification of the clinical picture and possible delay in correct diagnosis.

Conclusion

In the presence of erythematous lesions of the face, the diagnosis of tinea faciei should be considered to avoid misdiagnosis and the spread of infection.

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