

Case Report

## Generalized Inflammatory Tinea Corporis

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### Abstract

**Observations:** We report a case applied to our clinic with complains of red, itchy exanthema which occurred 1 week ago and rapidly spread all over the body of an 18 year old female. In her dermatological examination, detected are nummular shaped, eczematous, sharply bordered, erythematous plaque lesions with a diameter of 1,5 cm, the sides of which lesions are slightly elevated than the level of the skin. In the direct microscopic examination, numerous hypha and spores are observed. Punch biopsy specimen from the lesions on her arm was taken and sent for histopathological examination with the prediagnosis of tinea corporis, nummular eczema and atypical pityriasis rosea. Histopathological examination revealed hyphae and spores staining with PAS on the str. corneum. The case has been evaluated as inflammatory type tinea corporis by clinical, direct microscopic and histopathological findings. Treatment has started with short term corticosteroid, 250 mg/day terbinafine and ketoconazole shampoo. After antifungal therapy, there was decrease in the lesions. That the inflammatory type tinea corporis can spread rapidly with multiple lesions and also mimic eczematous lesions must always be remembered.

### Introduction

Tinea corporis is a dermatophytic infection which is observed in all body regions except for specific locations such as hands, feet, and genitalia. A human patient may be infected by another person, an animal, or nature. Zoophilic strains may make the diagnosis difficult by causing inflammatory lesions in particular. Presented here is a case of generalised inflammatory tinea corporis showing atypical clinical characteristics.

### Case Report

An 18-year-old female patient presented with complaints of red, itchy exanthema which had first oc-

curred one week earlier and rapidly spread all over the body. From her history, it was determined that there was contact with a cat and that the owner of the cat had similar lesions.

In her dermatological examination, nummular shaped, erythematous-scaling, eczematous papule and plaque lesions on the arms, legs and the trunk with a diameter of 0.5 to 1.5 cm and well-defined borders were revealed (**Figure 1**). The edges of these lesions were slightly more elevated than the level of the intact skin.

Direct microscopic examination of scales obtained by scraping the border of the lesions with 20% KOH showed the presence of numerous hyphae and spores (**Figure 2**). However, because the atypical pattern revealed numerous lesions, punch bi-



**Figure 1.** Nummular shaped, erythematous-scaling, eczematous papule and plaque lesions on the arms.



**Figure 2.** Direct microscopic examination of scales obtained by scraping the border of the lesions, with 20 % KOH, showed the presence of numerous hypha and spores ( x100).

opsy, from a lesion on her arm, was taken with the prediagnosis of tinea corporis, nummular eczema, and atypical pityriasis rosea.

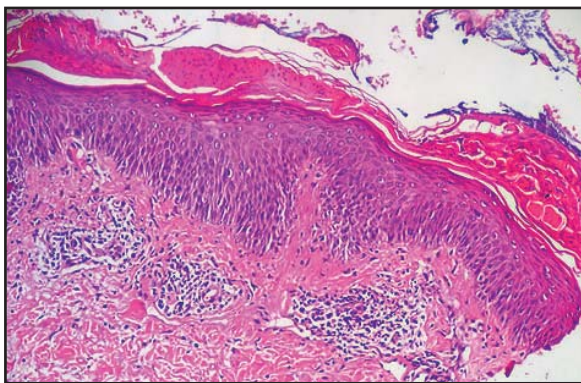
Biopsy material showed superficial crust formation, hyperkeratosis, parakeratosis, acantosis and spongiosis in the epidermis, with mononuclear cells and infrequent neutrophils infiltration in the dermis (**Figure 3**). With PAS staining the presence of a few fungal organisms was also detected (**Figure 4**). This confirmed the histopathological diagnosis.

In light of clinical and microscopic characteristics, our case has been evaluated as generalised inflammatory type tinea corporis. Treatment with 250

mg/day terbinafine, ketoconazole shampoo was started. After a one-month treatment, lesions healed, with hypopigmentation on their former location.

### Discussion

The infection, which might be observed at any age, spreads via direct contact with an infected person or animal, or indirectly via contaminated belongings. Also, spread via autoinoculation from a dermatophytical infection located in another body region is commonly observed.



**Figure 3.** Superficial crust formation, hyperkeratosis, parakeratosis, acantosis and spongiosis in the epidermis with mononuclear cells and infrequent neutrophile infiltration in the dermis (H&E, x100).



**Figure 4.** Hyphea and spores staining with PAS in the stratum corneum (x 200).

Classically, it manifests as well bordered, erythematous, scaly, annular plaques widening from the center towards the periphery and having elevated borders. Itchiness is a frequently accompanying symptom. Sometimes, vesicles and pustules are observed. Rarely, even blister formation as a secondary change of severe inflammation might be observed. The severity of the inflammation changes depending on the type of fungus, the condition of patient's immunity, and the degree of follicular invasion. The inflammatory response generated via zoophilic strains is more obvious than a response generated via anthropophilic strains [1]. In our case, there was a story involving contact with a cat. The lesions showed generalised inflammatory characteristics.

Atypical and common clinical appearances may occur in patients who are immunocompromised. As in our case who is non-compromised, atypical patterns resembling other dermatological reported illnesses may be observed in totally healthy individuals. Atypical tinea corporis cases showing purpuric, papulosquamous, and vesiculobullous clinical presentations are increasing in the literature [2-4]. Atopic and seborrheic dermatitis, nummular eczema, psoriasis, pityriasis rosea, contact dermatitis, subacute cutaneous lupus erythematosus, erythema multiformae, granuloma annulare, and drug eruptions are diseases that should be considered in distinctive diagnosis [5,6].

Particularly, because tinea progressing with inflammatory lesions, as in our case, may

imitate numerous skin diseases, when encountering erythematous, scaly skin lesions, the possibility of a dermatophytic infection must always be kept in mind. Fungal etiology should be demonstrated by performing a direct microscopic examination with 20% KOH, which is a simple and practical method.

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