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Tinea Incognito due to Local Steroids Use

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Abstract

Tinea incognita is an uncommon dermatophytic infection of the skin resulting from corticosteroid abuse. Due to its tricky clinical feature it is often misdiagnosed with other dermatosis such as contact dermatitis, seborrheic dermatitis or rosacea.

A 48 years old woman presented for dermatologic consultation with a one-and-a-half-month history of some disturbing lesions on her face. Patient was diagnosed and treated as contact dermatitis with local corticosteroids without any improvement for 3 weeks. After the clinical consultation at the dermatological unit and fungal culture confirmation; the diagnosis of tinea incognito was confirmed. The patient was treated for four weeks with oral and local antifungals and the lesions were completely healed. The aim of the case is to raise awareness among primary care physicians on the possible existence of mycotic infections and to be careful with the use of topical steroids.

Keywords: Tinea, tinea incognito, topical antifungal, topical steroids

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INTRODUCTION

Tinea incognito (TI) is a fungal infection of the skin, masked and often exacerbated by application of a topical corticosteroid. Atypical, corticosteroid modified, clinical features are often a challenge for physician's diagnosing (1). Tinea incognito indeed is a mycotic skin infection but it appears by incorrect, sometimes also prolonged steroid treatment. Moreover, for skin changes steroids are often recommended, even without prescriptions. This might be also case due to incorrect diagnosis. Steroids, in particular topical, are often used due to irritating dermatological changes, they suppress the immune response and this favors mycotic agents to grow, which obscure clinical feature and can lead to misdiagnosis. For these reasons Tinea incognito remains challenging for right diagnosis (2). Often, particularly due to changes in the immune response, the clinical feature may look like other diseases such as: eczema, lupus erythematosus, contact dermatitis, erythema migrans (1). The lesions are more extensive, without clear borders, which makes the clinical appearance quite different from typical fungal infection, being a key diagnostic element. Diffuse blanching erythema with telangiectasis, sometimes associated by scattered papules, pustules and hyperpigmentation are present in Tinea incognita (3).

The aim of the case is to raise awareness of primary care physicians on the possible existence of mycotic infections and in uncertain cases to consult dermatologist in order to clarify the case and to improve the treatment.

CASE REPORT

A 48 years old woman was admitted in outpatient dermatology clinic with a history of some facial lesions for about one and a half month, without previous medical history. She was referred by her family physician that had primarily treated the lesions with topical steroid (bethametasone 0.05% cream) and a second-generation antihistamine (Bilastine 40mg/day orally for 3 weeks) suspecting allergic dermatitis. Nevertheless, patient did not feel any improvement, she repeatedly asked for medical help, then she was referred for further dermatologic opinion. At our Department, she presented with some annular erythematous patches extended all over her both cheeks. The lesions were of different size from 1-2 cm and confluent in between. Also, in periphery of the lesions we noticed some scaling (Figure1 and Figure 2). The panthenol cream was prescribed during this evaluation period. Direct microscopic examination revealed negative for dermatophytes. While we were waiting for fungal culture result, all laboratory blood tests revealed within normal ranges. Therefore, we also excluded the lupus erythematodes discoides. Fungal culture examination identified trichophyton rubrum. During four weeks the patient was treated with oral terbinafine 250mg daily, while topical clotrimazole cream was applied twice daily for six weeks. Skin changes

were getting better, they were smaller in size, scaling has disappeared, skin color was reestablished. The patient was also feeling better and the treatment was terminated.

Figure 1. The erythematous patches extending on all face with some scaling

Figure 2. The erythematous patches extending on all face with some scaling

DISCUSSION

There are some moments which need deep, critical thinking and analyzing, making proper treatment choices, insisting on right diagnosis after considering the differential diagnosis (4). The easy, quick and cheap method of direct microscopy (according to existing institutional protocols) should be a must in cases presented with erythema and scales, insisting on proper sampling form the untreated lesion (5). This primarily leads to correct doubt, proper diagnosis and treatment. Immediate interruption of steroid agents is recommended along with initiation of antifungal treatment. In mild to moderate cases local antifungals have resulted in proper management, while severe forms demand oral antifungal in addition (6). Treatment by allylamine and the azole group drugs (itraconazole, fluconazole), remain the first choice in compare to griseofulvin because of the first ones affinity to the stratum corneum of the skin (1). Authors present the similar case as ours with erythematous and scaling patches but also papules and pustules treated with steroid and the skin changes got worse. Furthermore, they present negative direct microscopy and isolated Microsporum canis in culture. Tinea faciei incognito is often difficult to diagnose because of the clinical modification from the use of the topical steroids. The differential diagnoses at this site include contact dermatitis, rosacea like dermatitis and folliculitis, that's why misdiagnosis maybe an issue (7). There are cases of tinea incognita where direct microscopy is

negative and culture or polymerase chain reaction specific are positive for dermatophytic infection. This is seen in few cases with the same lesions (8). Since tinea incognito sometimes can be very difficult to diagnose as the authors in this case describe, where only after a biopsy the authors had seen inflammatory changes and suspected for tinea incognito. Therefore, authors suggest suspecting in tinea incognito when we have scaly erythematous changes on the face (9). There are cases of using dermatoscopy as a simple noninvasive in vivo diagnostic tool for tinea incognito, as it is in the case presented from Sonthalia et al. With dermatoscopy they saw perifollicular scaling, black dots, broken, comma and cork-screw hair (10). Kim et al published a 9-year multi-center study of Tinea incognita in Korea, which demonstrated that 82% were misdiagnosed as eczema-like manifestation and 0.7% as folliculitis-like presentation that was exceptionally rare (11).

CONCLUSION

Mycotic infections can sometimes be challenging due to misdiagnosis and inappropriate treatment. Sometimes, because of steroid treatment the skin changes can be modified, the disease masked, along with the patients ongoing disturbances. Physicians must consider tinea (incognito) infection, in particular when there is not seen any improvement, or the changes are worse besides the treatment. Diagnosed based treatment is required for appropriate case resolution. Novel diagnostic tools as dermatoscopic in vivo examination could be a promising option for fast and accurate diagnoses of tinea incognito.

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