Unusual presentation of tinea corporis skin lesion - A Case Report

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Abstract

Here we report a case about Tinea Corporis that had unusual presentation in an 18-year-old female without any underlying chronic skin disorders. The patient was treated with antifungal medication, oral and topical, and was followed up for 6 months.

Background: Tinea corporis is a common fungal infection that mimics many other annular lesions, and it is commonly misdiagnosed. Primary care Physicians must familiarize themselves with this condition and its treatment.

Keywords: Dermatophyte, Epidermophyton, onychomycosis, Micros Porum, Trichophyton, antifungal drugs.

Introduction

Tinea corporis, also known as 'ringworm' is a superficial dermatophyte infection of the skin, other than on the hands (tinea manuum), feet (tinea pedis), scalp (tinea capitis), bearded areas (tinea barbae), face (tinea faciei), groin (tinea cruris), and nails (onychomycosis or tinea unguium) (1). Tinea corporis is most commonly caused by dermatophytes belonging to one of the three genera, namely, Trichophyton (which causes infections on skin, hair, and nails), Microsporum (which causes infections on skin and hair), and Epidermophyton (which causes infections on skin and nails) (1,3).

Tinea corporis is the most common dermatophytosis (4). While tinea corporis occurs worldwide, it is most commonly observed in tropical regions (5). The lifetime risk of acquiring tinea corporis is estimated to be 10–20% (6). Tinea corporis occurs most frequently in post-pubertal children and young adults (5,7).

Humans may become infected through close contact with an infected individual, an infected animal (in particular, domestic dog or cat), contaminated fomites, or contaminated soil (8,10). Infection may be acquired as a result of spread from another site of dermatophyte infection (e.g. tinea capitis, tinea pedis, onychomycosis) (11,12). Transmission among household family members is by far the most common route; children often become infected by spores shed by an infected household family member (10). Autoinfection by dermatophytes elsewhere in the body may also occur (13). Transmission of the fungus is facilitated by a moist, warm environment, sharing of towels and clothing, and wearing of occlusive clothing (1,13).

The diagnosis can be made on clinical appearance and can be confirmed by microscopy or culture. A wide range of topical antifungal drugs are used to treat these superficial dermatomycoses.

Case Presentation

An 18-year-old female without any history of skin lesion. She has no other significant medical history. She was seen in the Family Medicine Clinic for a non-related medical condition.

Noticed with atypical presentation of tinea corporis on her face and the neck region for 6 months and has been under follow-up with dermatology clinic prior her visit to the primary health care physician.

She had mentioned that she applied some shared cosmetics which was used occasionally, then the skin lesion started to appear and to increase in size. A well-demarcated, sharply circumscribed, erythematous, annular, scaly plaque with a raised leading edge and scaling with central clearing lesion on the face and spreading over the upper trunk region.

Despite her multiple follow-ups regarding this lesion in the dermatology clinic the lesion continued to spread in a way of desquamation and peeling of skin in the lower part of her face and spreading to the entire neck region.

At her first visit with the dermatologist, she complained that the lesion was only a small spot on her chin and neck and it was diagnosed as contact dermatitis. It was treated with topical emollients such as hydrocortisone topical cream application for 7 days and mometasone topical application for 14 days.

Her status was worsening as the lesion started spreading to cover the half of her lower face and lips; it was in the form of severe desquamation with extensive redness and peeling.

One day she was seen in the family medicine clinic for a non-related skin condition. Upon her examination I had noticed her extensive skin lesion which was disfiguring her face.

The lesion was extensive superficial skin desquamation covering her lower face and neck region with redness and peeling. The patient was feeling embarrassed from her look and depressed.

We started her on a trial of the following medications:

1- Topical clotrimazole cream BID * 14 days
2- Fusidic acid topical cream TID * 7 days (short course of antibiotics just to treat the recent infection).
3- Miconazole topical cream TID * 14 days.

The patient was given a follow up after 15 days and it showed remarkable improvement.

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The next follow up was given after a month and it had improved results. The patient was given instructions not to use any shared cosmetics or towels of the family members.

We saw the patient after 3 months; the lesion was way improved with 30 % of the scales reduced, but we decided to start oral fluconazole 150 mg oral once weekly.

After 3 months follow up, the skin was much improved and most of the flakes and the desquamation gone except slight flakes of skin around the mouth.

Discussion

Tinea corporis is a common fungal infection and the differential diagnosis is broad and at times, difficult. A well-demarcated, sharply circumscribed, mildly erythematous, annular, scaly plaque with a raised leading edge, and scaling and central clearing on the body is characteristic of tinea corporis. At times, the diagnosis can be difficult due to the prior use of medications, such as calcineurin inhibitors or corticosteroids.

Antifungals play a key role in combating infection caused by dermatophytes. A combination of oral and topical antifungal appears to be the effective choice of treatment. Other body parts especially scalp must be examined, and adequate treatment should be initiated to eradicate the infection and prevent re-infection.

However, prognosis, for localized tinea corporis is excellent with appropriate treatment and patient compliance. Recurrence may occur if therapy is discontinued without complete eradication of the fungi.

Conclusion

In conclusion, Tinea corporis is a common fungal infection that mimics many other annular lesions, and it is commonly misdiagnosed. At times, the diagnosis can be difficult due to the prior use of medications, such as calcineurin inhibitors or corticosteroids. It is important to treat Tinea corporis with combined oral and topical antifungals.

This case emphasizes that Primary Care physicians must be familiar with this condition so that an accurate diagnosis can be made, and appropriate treatment initiated at the primary care level. It is extremely important as this condition could be treated in primary care and reduce referral to secondary care.

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