

**Tinea Corporis with Variable Lesions in a Young Female Adult – A Case Report**

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**A B S T R A C T**

Tinea corporis is a fungal infection that is seen more commonly in hot and humid weather, low hygiene, crowded living, and exposure to soil and animals. It is usually diagnosed clinically based on typical appearance of ring like lesions on the trunk and limbs, however, variable and atypical presentations can occur that requires awareness at the level of primary care physicians. Delayed or misdiagnosis, and improper treatment can lead to chronicity, recurrence, and resistance.

**Keywords:** Antifungal, Dermatology, skin infection Tinea corporis, Variable lesions

**Introduction**

Tinea corporis is a superficial fungal skin infection affecting the trunk and limbs, and caused by dermatophytes belong to genera *Trichophyton*, *Epidermophyton*, and *Microsporum* [1]. *Trichophyton* is the most common, seen in 80 to 90% cases. Infection occurs through direct skin contact and from soil, animal or vegetable matter. Dermatophytes infect by their ability to attach to and break down keratinized skin tissue with the help of keratinases they possess. Hot and humid climate, tight clothes, poor hygiene, and diabetes or low immunity are risk factors. Diagnosis is clinical with typical itchy, well defined annular lesions with a leading raised erythematous scaly edge. These lesions progress centrifugally with a central clearing giving the characteristic term “ringworm.”

The reported prevalence in India has a wide range of 6-60%, with higher rates from northern India as compared to the south. [2]. *T. verrucosum*, *T. rubrum* and *T. mentagrophytes* are the most common reported species in India, with a recent emergence of *T. tonsurans*. Recently there has been an increase in recalcitrant and recurrent infections, with significant resistance to terbinafine [3]. *Trichophyton* was found to be most sensitive to itraconazole and luliconazole amongst oral and topical antifungals respectively.

**Case Report**

A 30 years old adult female presented with history of lesions on her chest and both legs that she noticed 3 days ago. The lesions were itchy and first seen in the chest for which she used an herbal turmeric cream available at home. However, after 2 days itchy lesions appeared in the legs for which she presented for consultation.

The lesions in her legs were typically suggestive of tinea infection with well defined, scaly ring like appearance consisting of central clearing and a leading edge (Figure 1b). The lesions overall appeared darker and more hyperpigmented than usually seen. The lesions in the chest were not as typical and well defined as the legs, and consisted of coalesced lesions with radiating clearing areas and interspersed darker hyperpigmented scaly areas (Figure 1a) There were two such separate lesions on the chest.

She is a domestic worker in the city by profession, lives in the crowded city slums, and has no history of any systemic illness, or similar infection in the past. No other person in her household had any similar lesions. The time of presentation was onset of summer with moderate humidity.



**Figure 1:** Tinea Corporis on presentation a) Chest lesions b) Leg lesions

She was prescribed 1 week therapy of oral itraconazole 200mg daily as lesions were multiple. For itch relief, she was given topical calamine lotion twice daily. Within 2-3 days, the lesions showed significant improvement with resolution in 7 days (Figure 2). Patient tolerated the treatment well. She was also counseled on hygienic measures for preventing future infections, and also protecting other household members from getting infected.



**Figure 2:** Tinea Corporis on day 2 post treatment a) Chest lesions b) Leg lesions

## Discussion

Tinea infections are more common in the lower socio-economic strata in India, due to hot and humid climate, poor hygiene, crowded living and sharing personal items, and increased contact with unclean vegetable matter, stray animals and soil. [4,5]. Often such patients present late for consultation, try home remedies, or over-the-counter creams (that may contain irrational fixed dose combinations with corticosteroids that can worsen fungal infections). [6]. These patients may be reluctant to purchase expensive medicines or undergo diagnostic tests, and are also often non-compliant to long duration of therapy. There is also more awareness building required in such communities about hygiene and recognizing skin infections.

Clinicians also need to be aware of variable and atypical presentations of tinea corporis that may occur and sometimes precede typical clinical lesions. Also, different parts of the body may not present lesions at the same time, and in the same way, as seen in this case. Atypical manifestations of tinea corporis have been noted in literature, especially in India [7]. Tinea corporis can sometimes mimic other inflammatory skin diseases like psoriasis, eczematous or seborrheic dermatitis,

and rosacea. Coalescing papules forming larger serpiginous and partially annular lesions, can also present diagnostic issues [8]. Sometimes vesicles, pustules or bullae maybe present.

Delayed or misdiagnosis and inadequate treatment can increase the risk of chronic disease, recurrence and resistance, and this is being seen in India [9]. Diabetes, immunosuppression and atopy are risk factors for chronicity [10]. Fixed dose combination topical creams/ointments of antimicrobials with corticosteroids should be avoided [6].

## Conclusion

Tinea corporis is a fungal infection that India is predisposed to due to hot and humid weather, and a large lower socioeconomic stratum living in crowded urban slums with low hygiene and exposure to soil and animals. While Tinea corporis is usually diagnosed clinically based on typical appearance of ring like lesions on the trunk and limbs, variable and atypical presentations can occur that requires clinical awareness to avoid delayed or misdiagnosis and improper treatment that can lead to chronicity, recurrence, and resistance.

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