Successful Treatment of Resistant Tinea Corporis Using Shamail Combination Therapy: Case Report from Rural Sindh, Pakistan

Shamail Zia[1,2*], Fazail Zia[3], Farozaan Shamail[3], Naeem Uddin[1], Vardah Zia[3] and Ziram Zia[1]

[1]*Department of Dermatology, Dr. Naeem Uddin Kanwal Skin Clinic, Karachi, Pakistan*
[2]*Department of Dermatology, Zia Medicare Center, Karachi, Pakistan*
[3]*Department of Medicine, Zia Medicare Center, Karachi, Pakistan*

Abstract

Tinea corporis is a ringworm infection caused by dermatophytes, namely *Trichophyton rubrum*, *Microsporum canis*, and *Epidermophyton floccosum*. Topical antifungal drugs are generally used to treat tinea corporis. At the same time, oral therapy is employed in persistent cases or when the patient is resistant to topical treatments or immunocompromised. To avert tinea contagion, maintaining good personal hygiene, keeping skin dry and cool, and avoiding sharing clothing or hair accessories with people who are infected are essential. We present the case of a 55-year-old male with tinea corporis that has been persistent for many years. We used a multidrug approach, including topical clotrimazole with oral fluconazole, griseofulvin, vitamin A, vitamin D (cholecalciferol), and zinc supplements, for 3 months. Marked improvement of the lesions was observed.

Keywords: *Ringworm, tinea corporis, tinea infections, dermatologic disease, tinea treatment.*

INTRODUCTION

'Ringworm' (Tinea corporis) is a superficial fungal infection of the skin. The primary cause of this disease is dermatophytes, namely: Trichophyton, Microsporum, and Epidermophyton. Among these three, skin, hair, and nails are mainly affected by Trichophyton; the skin and hair are affected by Microsporum, while the skin and nails are affected by Epidermophyton [1]. The dermatophytes are categorized into the following types based on their source: anthropophilic (originating in humans); zoophilic (originating in animals); and geophilic (originating in soil) [2]. Tinea corporis is common and resembles several other ring-shaped skin lesions; therefore, its differential diagnoses and management are relevant [3]. Tinea corporis is caused by dermatophytes and occurs in 10%-20% of people at some point in their lifetime [4]. This infection can be contracted through close contact with a disease-ridden individual or animal (*e.g.*, a dog or cat, especially) and contaminated objects or soil [5]. Tinea infection may spread from pre-existing dermatophyte infections, such as from scalp (tinea capitis), feet (tinea pedis), or from nails (onychomycosis) [6]. Household transmission is a standard route, with children frequently acquiring the infection *via* spores disseminated by a disease-ridden contact [7]. The infection can spread from one body area to another. The transmission of the fungus is facilitated by humid environments, tight, non-breathable garments, and the sharing of apparel and towels [8]. The risk of infection is increased if: (a) there is a personal history of any tinea infections like tinea capitis, tinea pedis, tinea cruris, *etc.*; (b) having contact with infected household members like family or pets; (c) residing in congested settings; (d) engagement in close-contact activities such as wrestling or martial arts; (e) excessive perspiration; (f) decreased β-defensin levels; (g) compromised immunity; (h) diabetes; (i) genetic factors (*i.e.* tinea imbricata); and (j) dermatological disorders like xerosis or ichthyosis [9].

A case of a male, aged 55 years, is presented suffering from tinea corporis for the last 4 years.

CASE REPORT

A 55-year-old male presented to Dr. Naeem-ud-din Kanwal's skin clinic in Karachi, Pakistan, with tinea corporis. He belonged to the rural area of Sindh, Pakistan, and had a history of diabetes mellitus. He was scrutinized as he exhibited large erythematous plaques on the trunk and extremities. There was plentiful superficial scaling (**Fig. 1**) with psoriasis-like lesions. The patient complained of the lesions with severe pruritus for many years.

His medication history included administration of antihistamines for pruritus and use of antifungal agents orally, which included fluconazole, voriconazole, and terbinafine. He had also been using topical creams for treatment, *i.e.*, methylprednisolone, betamethasone, and clotrimazole, but all the therapies he used were not very beneficial and did not provide complete recovery.

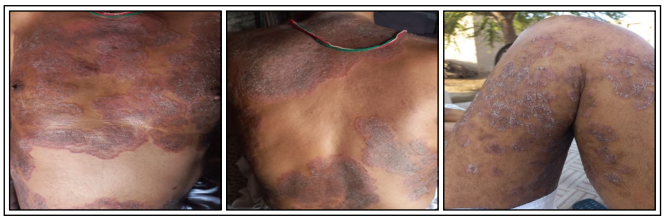

Fig. (1): Body trunk and extremities with erythematous lesions.

**Corresponding author: Shamail Zia, Department of Dermatology, Dr. Naeem Uddin Kanwal Skin Clinic, Karachi, Pakistan, Email: drshamailzia@gmail.com*
Received: September 03, 2025; Revised: December 09, 2025; Accepted: January 25, 2026
DOI: https://doi.org/10.37184/lnjpc.2707-3521.8.29

  ISSN: 2708-9134 (Online) Liaquat National Journal of Primary Care 2026; 8(2): 238-240

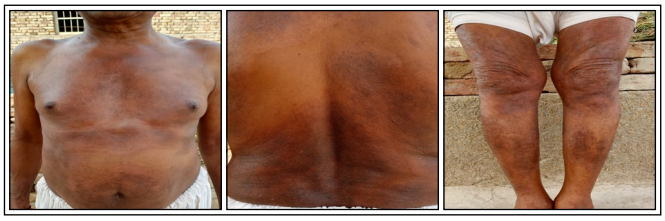

Fig. (2): Improved lesions after a month's treatment.

After his careful evaluation, various laboratory tests were ordered, which included ESR, CBC, lipid profile, HbA1c, RBS, HbsAg, LFTs, HIV, Anti-HCV, and serum IGE. The laboratory results were mainly normal, and HbsAg, Anti-HCV, and HIV were non-reactive. Yet, the following tests revealed significantly elevated results: HbA1c (10.0%), RBS (374 mg/dl), serum IgE levels (2424 IU/ml), serum total lipids (1206 mg/dl), serum cholesterol (241mg/dl), and triglycerides (362mg/dl). A novel multidrug approach, which we propose to call Shamail Combination Therapy (SCT), was instituted. This is a unique treatment approach for patients with tinea corporis decided and planned by Dr Shamail Zia and includes the combination of topical clotrimazole with oral fluconazole 150 mg every third day for 3 months, griseofulvin tablets 500mg daily for 2 months, a vitamin A derivative 20 mg (isotretinoin) daily for 2 months (contraindicated if patient is pregnant or planning to conceive does not happen often in 55-year-old men!), vitamin D (cholecalciferol) 200,000 IU once monthly, zinc tablets 55mg daily for 3 months. The patient was also prohibited from using any anti-bacterial soaps or body washes. Upon follow-up 1 month later, the patient showed marked recovery (**Fig. 2**), with significant improvement in the lesions.

DISCUSSION

The lesions of tinea corporis form overlapping rings in a gyrate pattern. It is a superficial fungal disease. Other shapes include arcuate and circinate ones. Topical antifungal agents are widely used to treat tinea corporis, but oral antifungal agents may be necessary in some cases. Terbinafine, for over 25 years, has been considered the most effective drug, being a fungicidal allylamine, but recently cases of resistance have been reported. Fungal resistance to therapies poses a grave health threat to the affected individuals [10]. The classical presentation of tinea corporis is a well-demarcated, ring-shaped, erythematous patch on the body. However, the diagnosis can occasionally be difficult if patients have previously used treatments such as calcineurin inhibitors or corticosteroids.

Additionally, other skin conditions that produce annular lesions may closely resemble tinea corporis [11]. To make the treatment successful or to increase efficacy, oral and topical antifungal agents may be combined [12], while oral agents are reserved for resistant or extensive disease [13]. In this case, we used a combination of topical clotrimazole with oral fluconazole 150 mg every third day for 3 months, griseofulvin tablets 500mg daily for 2 months, vitamin A derivative 20 mg (Isotretinoin) daily for 2 months, vitamin D (cholecalciferol) 200,000 IU once monthly, and zinc supplement 55mg daily for 3 months. There is no conclusive study comparing topical and systemic antifungal medication to monotherapy. The pharmacokinetics of topical drugs are superior to those of systemic drugs. Therefore, it is anticipated that the combination will achieve superior mycological clearance compared with systemic or topical treatment alone. To achieve broad coverage and avoid the development of resistance, combinations from multiple groups should be used [14].

When he was prescribed Shamail Combination Therapy (SCT), marked improvement in his condition was observed, as shown in the figures.

CONCLUSION

To combat the threat of cutaneous dermatophytosis, dermatologists have been compelled to think outside the box. There is little information on the frequency of relapse after stopping topical monotherapy, even though there is enough evidence to show the effectiveness of topical antifungals in confined disease. With appropriate treatment and patient compliance with the therapeutic regimen, the prognosis for localized tinea corporis is favorable. This case report can serve as a valuable source for dermatologists in optimizing treatment decisions for similar cases of persistent tinea corporis, in which we use a combination of topical clotrimazole with oral fluconazole, griseofulvin, vitamin A, vitamin D (cholecalciferol), and a zinc supplement. The gaps in treatment that must be addressed to provide patients with better, more efficient care are highlighted. To give a clear understanding of the proper dosage and duration of therapy, more rigorous randomized controlled trials comparing the various oral antifungal medications are urgently needed.

CONSENT FOR PUBLICATION

We took consent from the patient.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENTS

Declared none.

REFERENCES

1. Warsi S, Siddique A, Terrill TH. Tinea capitis/Tinea corporis (Microsporum spp.). In: Samples OM, McCommon GW, Terrill TH, Stose LL, Eds. The one health model as applied to zoonotic diseases. USA: John Wiley & Sons, Inc. 2025; pp.181-6. DOI: https://doi.org/10.1002/9781119985853.ch5.1
2. Leung AK, Hon KL, Leong KF, Barankin B, Lam JM. Tinea capitis: an updated review. Recent Pat Inflamm Allergy Drug Discov 2020; 14(1): 58-68. DOI: https://doi.org/10.2174/1872213X14666200106145624
3. Carrascal-Correa DF, Zuluaga A, González A. Species distribution of the main aetiologic agents causing skin dermatophytosis in Colombian patients: a 23-year experience at a Mycological

Reference Center. Mycoses 2020; 63(5): 494-9.
DOI: https://doi.org/10.1111/myc.13073

4. Ebrahimi M, Zarrinfar H, Naseri A, Najafzadeh MJ, Fata A, Parian M, *et al.* Epidemiology of dermatophytosis in Northeastern Iran: a subtropical region. Curr Med Mycol 2019; 5(2): 16-21.
DOI: https://doi.org/10.18502/cmm.5.2.1156
5. Takenaka M, Murota H, Nishimoto K. Epidemiological survey of 42 403 dermatophytosis cases examined at Nagasaki University Hospital from 1966 to 2015. J Dermatol 2020; 47(6): 615-21.
DOI: https://doi.org/10.1111/1346-8138.15340
6. Leung AKC, Lam JM, Leong KF, Hon KL, Barankin B, Leung AAM, *et al.* Onychomycosis: an updated review. Recent Pat Inflamm Allergy Drug Discov 2020; 14(1): 32-45.
DOI: https://doi.org/10.2174/1872213X13666191026090713
7. Yin B, Xiao Y, Ran Y, Kang D, Dai Y, Lama J. Microsporum canis infection in three familial cases with tinea capitis and tinea corporis. Mycopathologia 2013; 176(3-4):259-65.
DOI: https://doi.org/10.1007/s11046-013-9685-5
8. Gupta AK, Chaudhry M, Elewski B. Tinea corporis, tinea cruris, tinea nigra, and piedra. Dermatol Clin 2003; 21(3): 395-400.
DOI: https://doi.org/10.1016/s0733-8635(03)00031-7
9. Singh S, Verma P, Chandra U, Tiwary NK. Risk factors for chronic and chronic-relapsing tinea corporis, tinea cruris and tinea faciei: results of a case-control study. Indian J Dermatol Venereol Leprol 2019; 85(2): 197-200.
DOI: https://doi.org/10.4103/ijdvl.IJDVL_807_17
10. Chen E, Ghannoum M, Elewski BE. Treatment-resistant tinea corporis, a potential public health issue. Br J Dermatol 2021; 184(1): 164-5.
DOI: https://doi.org/10.1111/bjd.19420
11. Kovitwanichkanont T, Chong AH. Superficial fungal infections. Aust J Gen Pract 2019; 48(10): 706-11.
DOI: https://doi.org/10.31128/AJGP-05-19-4930
12. Drago L, Micali G, Papini M, Piraccini BM, Veraldi S. Management of mycoses in daily practice. G Ital Dermatol Venereol 2017; 152(6): 642-50.
DOI: https://doi.org/10.23736/S0392-0488.17.05683-8
13. Kitauchi Y, Kumagai Y, Inoue-Masuda Y, Sugiura M, Sato T, Yaguchi T, *et al.* Tinea corporis caused by terbinafine-resistant Trichophyton rubrum successfully treated with fosravuconazole. J Dermatol 2021; 48(7): 329-30.
DOI: https://doi.org/10.1111/1346-8138.15900
14. Sahoo AK, Mahajan R. Management of tinea corporis, tinea cruris, and tinea pedis: A comprehensive review. Indian Dermatol Online J 2016; 7(2): 77-86.
DOI: https://doi.org/10.4103/2229-5178.178099