'website : www.ijacare.in e-ISSN No.: 2457-0443
INTERNATIONAL JOURNAL OF AYUSH CASE REPORTS (IJA-CARE)

Topical Application of Herbal Unani formulation in the chronic Relapsing Dermatophytosis related Erythoderma: A Case Report

Tooba Bilal Wani [1], Mohammed Sheeraz [2*], Sahiba[1]

[1]PG Scholar, Department of *Moalajāt,* Regional Research Institute of Unani Medicine, University of Kashmir, Habak, Naseembagh Campus, Hazratbal, 190006, J&K, India
[2] Research Officer Scientist Level II & Reader, Department of *Moalajāt*, Regional Research Institute of Unani Medicine, University of Kashmir, Habak, Naseembagh Campus, Hazratbal, 190006, Jammu and Kashmir, India

ABSTRACT:
Tinea corporis is the most prevalent form of dermatophytosis and can clinically present with various altered or atypical forms. One of the altered presentations of chronic dermatophytosis is erythroderma. Determining the underlying cause of erythroderma can be challenging for physicians. Dermatophytosis, a known cause of erythroderma, represents a significant global burden on public health and the economy, especially in endemic areas like India, where there has been a notable rise in treatment-resistant cases. Here, we report a case of drug-resistant tinea corporis presenting to the OPD of RRIUM Srinagar with erythrodermic lesions, a rare and atypical morphology of tinea. *Unani* medicine, with its extensive range of therapeutic options for Tinea (*Qūba*), was employed in this case. The patient was treated with *Marham-i-Qūba*, a *Unani* formulation. The patient was instructed to apply two fingertip units of the formulation (approximately 1 gram) locally, twice daily, on the affected areas for a duration of 15 days. Weekly subjective assessments were conducted using the Physician Global Assessment (PGA) scale, and photographic assessments were performed for objective evaluation before and after treatment. Additionally, potassium hydroxide (KOH) microscopy of skin scrapings was done pre- and post-treatment. Two follow-up assessments were carried out after treatment to monitor for lesion relapse. The subjective and objective parameters showed remarkable improvement, warranting documentation of this case.

Keywords: Erythroderma, KOH, *Marham-i-Qūba, Qūba*, Tinea corporis

Received: 20.11.2024 Revised: 04.12.2024 Accepted: 12.12.2024 Published: 20.12.2024

Quick Response Code

***Corresponding Author:**
Dr. Mohammed Sheeraz
Research Officer Scientist Level II & Reader, Department of Moalajāt, Regional Research Institute of Unani Medicine, University of Kashmir, Habak, Naseembagh Campus, Hazratbal, 190006, Jammu and Kashmir, India
Email: drsheerazmd@gmail.com

INTRODUCTION:

Also termed "ringworm," tinea corporis is a superficial dermatophyte infection of the skin, occurring on sites other than the hands (tinea manuum), feet (tinea pedis), scalp (tinea capitis), beard area (tinea barbae), face (tinea faciei), groin (tinea cruris), or nails (onychomycosis or tinea unguium). [1] It is the most prevalent type of dermatophytosis. [2] The most common causative organisms are Microsporum canis, Trichophyton rubrum, and T. tonsurans. [3] The disease is most frequently seen in tropical areas. [4] Around 10% -20% of people develop tinea corporis in their lifetime. [5] Wearing occlusive clothing, sharing towels and clothes, and living in warm, moist environments all contribute to the growth of the fungus. [1, 6]

In *Unani* medicine, *Qūba* (dermatophytosis) is described as a disease of the superficial skin surface, characterized by itching and scaling in the affected area. The condition resembles *Shāra* (urticaria), as mentioned by Ahmad Tabri in *Moalajat Buqrātiya*. Two types of *Qūba* have been described based on the causative humor and ease of cure: the *Damvi* type, which is easier to cure, and the *Saudavi* type, which is more difficult. [8]

The worldwide prevalence of dermatophytosis is 20-25%. In India, the disease is currently considered an epidemic. This situation is further complicated by deviations in the typical clinical patterns of the disease, making diagnosis difficult[9]. A cutaneous fungal infection that loses its typical morphological characteristics is known as tinea incognito. The clinical presentation of tinea incognito can vary[10]. Reports have documented erythroderma as a presentation of tinea incognito[11]. Erythroderma refers to marked redness of most of the skin, with minimal or significant scaling, and is sometimes associated with pruritus. It can be a direct consequence of the fungal infection or may occur as a superimposed fungal infection on pre-existing congenital erythroderma[19].

The current scenario of atypical presentations, poor response to therapy, and the chronic, recurrent nature of dermatophytosis is a defining feature of the disease. [12] This has significantly impacted patients' quality of life and imposed economic burdens on affected families. [13] The case presented represents a chronic and recurrent type, which has been both economically and psychologically distressing for the patient.

This underscores the need to explore alternative therapies that could alleviate symptoms, prevent relapses, and reduce the economic burden. One such formulation is *Marham-i-Qūba* (Table 1), which is documented in classical *Unani* texts to have antifungal effects. [14]

CASE DESCRIPTION:

A 40-year-old Kashmiri housewife, with no relevant medical history, attended the OPD of RRIUM Srinagar, presenting with erythematous, scaly, and pruritic skin lesions on the lower aspect of the trunk (right side) and the lower half of the right leg for the past 5 months.

She reported having previously consulted a general physician, who prescribed topical and oral antifungal treatments. However, the lesions were resistant and relapsing, with noticeable variations in their morphology over time.

The patient had no history of dermatological conditions or a family history of psoriasis or dermatitis. Her overall medical history was

unremarkable. She had been treated with Itraconazole 100 mg/day for 3 months and was also prescribed topical Clotrimazole cream but showed no favorable response to either treatment.

General physical examination:

Weight: 75kg, Height: 1.80m, BP: 120/80 mmHg, Pulse: 72bpm, Respiratory Rate: 16, Mizaj: *Damvi*

Local examination: A cutaneous examination revealed red, scaly lesions (erythroderma and desquamation of the skin) on the trunk and lower extremities. The fingernails were dystrophic and discolored (Fig. A and B).

Consent was obtained for skin scrapings and nail clippings. KOH preparation of the skin scrapings and nail clippings demonstrated fungal hyphae. CBC, LFT, and urinalysis findings were normal. The patient was primarily diagnosed with dermatophytosis presenting with erythrodermic features, resembling *Qūba* in the *Unani* system of medicine.

Therapeutic intervention:

Based on the cutaneous and laboratory examinations, the patient was advised to apply two fingertip units of MQ locally to the lesion sites twice daily. The treatment was administered for a duration of 15 days.

Follow ups and outcomes:

On August 31, 2024, the patient had their first visit to the OPD. After a 7-day interval, the patient returned for evaluation of subjective symptoms, including itching, scaling, and redness. These were assessed using the PGA, and all symptoms had significantly alleviated [Table 2]. The GAS score reduced from 9 to 5 by the 7th day of intervention and further dropped to 1 by the 15th day.

The next evaluation, conducted on the 15th day, included a PGA photographic assessment. The chronic, relapsing lesions had drastically improved, as evident from the photographs [Fig. 1 and 2]. A repeat KOH examination performed after the 15-day treatment course tested negative for fungal hyphae.

Post-treatment follow-up was conducted twice, each 1 month apart from the last evaluation. There was no relapse of the lesions, and all signs and symptoms remained resolved by the end of the treatment.

Table-1: Ingredients of *Marham-i-Qūba:*

Ingredients	**Part used**	**Quantity**
Ilak-ul-Butm (Pinuslongifolia Roxb. ex D. Don *)*	*Gum*	5 g
Ushaq (Dorema ammonium D. Don *)*	*Gum*	5 g
Muqil (Commiphora mukil Hook. ex Stock*)*	*Gum*	5 g
ZarāwandMadahraj (Aristolochia rotunda L*)*	*Root*	5 g
Roghan-i-Gul (Rosa damascena Mill)	*Essential oil*	20 g
Mom Zard (*Bees wax)*	–	20 g
Peeh-e-Buz (Fat of the goat)	–	20 g

Table-2: Significant effect on scores (GAS) at Base line and follow ups

Parameter	**Baseline**	**Ist follow up**	**2nd follow up**

Erythema	+	+	-
Scaling	+	+	-
Pruritis	+	-	-
GAS score	9	5	1

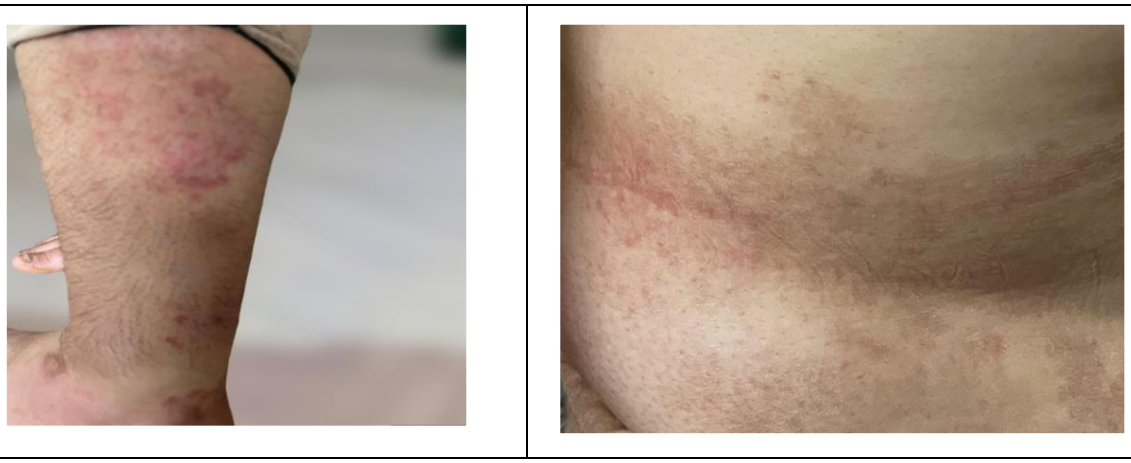

Figure-1: The lesions on the lower extremity and the trunk before treatment

Figure- 2: The effects of *Marham-i-Qūba* on lesions after treatment

DISCUSSION:

The improvement in the patient's symptoms may be attributed to the pharmacological properties of the ingredients in the MQ formulation. The antifungal properties of the formulation are validated in Unani classical texts[14]. The formulation contains *Ushaq, Ilak-ul-Butm, Muqil, Zarāwand Madahraj, Roghan-i-Gul, Mom Zard, and Peeh-e-Buz* [14] . Among these, *Ushaq, Zarāwand Madahraj, and Muqil* possess *Jali* (detergent) action, while *Mom* exhibits *Muhalil* (resolvent) and *Musakkin Alam* (analgesic) properties[21]. Contemporary studies based on modern biochemical parameters support these findings. The formulation includes *Pinus Longifolia*, whose essential oil, α-pinene, has demonstrated antifungal activity by disrupting the fungal cell wall, cytoplasmic membrane, and intercellular membranes [15]. Another ingredient, *Dorema indicum*, contains fatty acids that disrupt fungal cell membranes, thus exhibiting antifungal activity [16]. A study by Smita et al. (2017)

demonstrated the in vitro antifungal activity of *Commiphora mukul* extracts against six pathogenic fungi [17]. Similarly, Shohayeb et al. (2014) validated the broad-spectrum antifungal and antibacterial properties of *Rosa damascena* oil [18]. Additionally, certain *in vivo* studies have confirmed the antifungal effects of beeswax mixtures against fungal infections such as Tinea corporis and diaper dermatitis. [20].

CONCLUSION:

Marham-i-Qūba effectively cured the resistant chronic lesions and prevented relapse. The positive response observed in this case warrants documentation. Further studies with larger sample sizes are needed to validate this treatment based on scientific principles.

Limitations of the study:

The report focused on a single patient, so the findings may not be generalizable to other patients. Therefore, future studies should include a larger sample size.

Acknowledgement:

The authors express their gratitude to the Deputy Director of the Regional Research Institute of Unani Medicine (RRIUM), Srinagar, for providing the necessary facilities.

Statement of Informed Consent:

The patient involved in the study provided informed consent, and the authors confirm that the necessary consent forms have been obtained. In these forms, the patient agreed to the use of their images and clinical information for publication in the journal. The patient understands that their name and initials will not be disclosed and that all efforts will be made to protect their identity. However, complete anonymity cannot be guaranteed.

Conflict of interest: The author declares that there is no conflict of interest.

Guarantor*:* The corresponding author is the guarantor of this article and its contents.

Source of support: None

How to cite this article:
Wani TB, Sheeraz M, Sahiba. Topical Application of Herbal Unani formulation in the chronic Relapsing Dermatophytosis related Erythoderma: A Case Report. Int. J. AYUSH CaRe. 2024;8(4): 545-551.
https://doi.org/10.70805/ija-care.v8i4.647

Abbreviations

Term	Abbreviation
Marham-i-Qūba	MQ
Physician Global Assessment	PGA
Tinea Corporis	TC
Regional Research Institute of Unani Medicine	RRIUM
Potassium Hydroxide	KOH
Complete Blood Count	CBC
Liver Function Test	LFT

Kidney Function Test	KFT
Physician's Global Assessment Score	GAS
Body Mass Index	BMI
Blood Pressure	BP

REFERENCES:

1. Hsu S, Le EH, Khoshevis MR. Differential diagnosis of annular lesions. American Family Physician. 2001 ;64(2):289-97.
2. Poudyal Y, Joshi SD. Medication practice of patients with dermatophytosis. JNMA J Nepal Med Assoc. 2016 ;55(203):7-10.
3. Takenaka M, Murota H, Nishimoto K. Epidemiological survey of 42 403 dermatophytosis cases examined at Nagasaki University Hospital from 1966 to 2015. The Journal of Dermatology. 2020 ;47(6):615-21.
4. Ebrahimi M, Zarrinfar H, Naseri A, Najafzadeh MJ, Fata A, Parian M, Khorsand I, Babič MN. Epidemiology of dermatophytosis in northeastern Iran; A subtropical region. Current medical mycology. 2019 ;5(2):16.
5. Adams BB. Tineacorporisgladiatorum. Journal of the American Academy of Dermatology. 2002;47(2):286-90
6. Gupta AK, Chaudhry M, Elewski B. Tineacorporis, tineacruris, tineanigra, and piedra. Dermatologic clinics. 2003 ;21(3):395-400.
7. Wilson DC, Jester JD, King Jr LE. Erythroderma and exfoliative dermatitis. Clinics in dermatology. 1993 ;11(1):67-72.
8. Pathan, Shoeb Khan & Syed, Ayesha &Farooqui, A.H. & Ahmed, Jaleel&Iqbal, Tabassum& Ahmed, Quaasim. . Brief review of qooba (dermatophytosis) & its management in unani perspective. Indian Journal of Unani Medicine. 2022;15: 87-92.
9. Shenoy MM, Jayaraman J. Epidemic of difficult-to-treat tinea in India: Current scenario, culprits, and curbing strategies. Archives of Medicine and Health Sciences. 2019 ;7(1):112-117..
10. . Leung AK, Lam JM, Leong KF, Hon KL. Tineacorporis: an updated review. Drugs Context. 2020;9:5-6.
11. Kokandi, A.A. (2024). Tinea Incognito. *Clinical, Cosmetic and Investigational Dermatology*, 2024;*17:* 993–998.
12. Majid I, Sheikh G, Kanth F, Hakak R. Relapse after oral terbinafine therapy in dermatophytosis: a clinical and mycological study. Indian journal of dermatology. 2016 ;61(5):529-33.
13. Singh S, Verma P, Chandra U, Tiwary NK. Risk factors for chronic and chronic-relapsing tineacorporis, tineacruris and tineafaciei: Results of a case–control study. Indian Journal of Dermatology, Venereology and Leprology. 2019 ;85:197-200……..
14. Anonymous. National Formulary of Unani Medicine.Government of India Ministry of Health & Family Welfare, New Delhi. 2006; Part I: 165.
15. Norouzi Z, Madani M, Amjad L, Shakib P. Antifungal Properties of Pinuseldarica and Pinuslongifolia Fruit Extracts against Candida Species Isolated from Vulvovaginal Candidiasis Patients. Current Drug Therapy. 2023 ;18(4):333-41.
16. Salih RM, AbbassYK.Determination of antifungal activity of Dorema ammonium.

17. Gaurea SH, Prabha SM, Bapat UC. Antifungal activity of gum-resin extracts of Boswelliaserrata, Commiphoramukul, Gardenia resinifera and Shorearobusta against some plant pathogenic fungi. Indian Phytopathology. 2017;70(2):224-7.
18. Shohayeb M, Abdel-Hameed ES, Bazaid SA, Maghrabi I. Antibacterial and antifungal activity of Rosa damascena MILL. essential oil, different extracts of rose petals. Global Journal of Pharmacology. 2014;8(1):1-7.
19. Levene GM. Chronic fungal infection (E. floccosum), erythroderma, immune deficiency and lymphoma.1973 ;66(8):755-746.
20. Fratini F, Cilia G, Turchi B, Felicioli A. Beeswax: A minireview of its antimicrobial activity and its application in medicine. Asian Pacific Journal of Tropical Medicine. 2016;9(9):839-43.
21. Hakeem Kabeerudin, Makhzan –ul-Mufaridat . Kohinoor book depot , Delhi . Edition 2000, page77, 559, 551.