

Research Article

# Management of Recurrent Tinea Corporis by Unani Medicine: A Report on Case Studies

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## I N F O

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## A B S T R A C T

Dermatophytosis or Tinea infection is a common skin problem frequently encountered in general practice. Although several antifungal drugs are prescribed for complete eradication of the stubborn contagious infection, some species are recriminator to these antifungal agents which causes a rise in the number of resistant Tinea infection. Recurrent Tinea Corporis (RTC) is becoming an emerging problem now days. The present case-report is a compilation of two diagnosed cases of RTC of more than 9 months. These two cases were treated in the OPD of National Research Institute of Unani Medicine for Skin Disorders (NRIUMSD), Hyderabad with classic principles of Unani by *Itrifal Shahtara* (Polyherbal Unani Formulation) for oral intake and *Marham Kharish Jadeed* as a local application over a period of 12 weeks with regular follow ups for assessment of symptoms. After 12 weeks of therapy, complete resolution in first case and markedly resolution in the second case; in the number of lesions, severity of itching and erythema, is observed. In this study, the prescribed Unani Medicines have efficiently managed due to their anti-inflammatory, antioxidant, free radical scavenging, analgesic and wound healing properties.

**Keywords:** *Itrifal Shahtara*, *Marham Kharish Jadeed*, Recurrent Tinea Corporis, *Qūbā*

## Introduction

Superficial fungal infection of skin or dermatophytosis is a widespread clinical entity, seen throughout the world with higher predominance in tropical and subtropical countries (like India), where hot climate, relative humidity, and over-crowded populations are more favourable factors of the growth of fungi.<sup>1</sup> It is estimated by the World Health Organization that dermatophytes affect about 25% of the world population. In India, about 30% of the patients attending dermatology clinics are affected by the same.<sup>2,3</sup>

Among various types of dermatophytosis, Tinea Corporis (or ringworm) refers to fungal infection anywhere in the body, sparing scalp, beard area, hands or feet. It is manifested by a well-demarcated annular plaque (or raised area) with a scaly and advancing border. Itching is the main complaint.<sup>4</sup> The consensus guidelines for the management of Tinea corporis is lacking, however systemic therapy is indicated when the lesions are widespread, recurrent and chronic. A number of oral as well as topical antifungals are available but over the last couple of years, there has been a dramatic

increase in the number of resistant and relapsing cases.<sup>5,6,7</sup> Recurrent dermatophytosis defines the reoccurrence of the the dermatophytes infection within few weeks after completion of the intended therapy. Among various types, Tinea corporis and Tinea cruris are the most common clinical forms associated with varied chronicity affecting the quality of life of the patients.<sup>3,6</sup> Qūbā (dermatophytosis) refers to an annular or circular superficial skin lesion in classical literature.<sup>8,9</sup> It is described in context of *Amraze Raddiya*, a disease which is caused by *Mirrah sauda* (Morbific Black Bile; MBB) and requires a longer duration to cure. Both systemic and topical therapies are recommended according to the severity of the disease.<sup>8,9,10</sup> The purpose of this study was to evaluate the efficacy and safety of Unani Medicine in the treatment of Recurrent Tinea Corporis (RTC). We report the outcomes of two cases of RTC treated by systemic and local use of Unani Medicines. No apparent side effects were observed after 12 weeks of therapy and the infection had not recurred even after 6 months of treatment.



Figure 1 (a).Before Treatment



Figure 1 (b).After Treatment

### Patient Information

The first case was a 31 year old female, housewife, with recurring scaly rashes on her arms, posterior portions of neck, groin, buttocks and left lower limb along with severe itching for the last one year. The second case was a 28 years old female, self-employed, having itchy rashes for the last 9 months, below her breasts, arms, legs and groin area. Both patients had been treated earlier for the presumed dermatophytosis with various antifungal therapies (oral and local) including Azole (Ketoconazole,

Itraconazole), Allylamine (Terbinafine) groups of medicine. They responded well to the treatment but the rashes recurred at the exact location several weeks after the discontinuation of the therapy. The relevant medical, social, and family history of both cases were insignificant. There was no history of any other fungal infection, pet exposure, liver and endocrine disorders, pregnancy and lactation. In addition, patients were non-diabetic, non-immune compromised, not having atopy and no history of intake of systemic corticosteroids. In both cases, sleep deprivation was present along with severe itching.

### Clinical Findings

The examination of the first and second cases had scaly coalescing annular plaques with central clearing and a rim of hyper-pigmentation on different parts of the body (anterior arm Figure 1 & Figure 2). In both the cases, the rashes were found to be consistent with RTC.



Figure 2(a).Before Treatment



Figure 2(b).After Treatment

## Timeline

### First Visit

- At the institute, Hyderabad, India, May 2016
- Two cases (31F & 28F) of Recurrent Tinea Corporis visited NRIUMSD, Hyderabad. Both had history of disturbed sleep and anxiety because of illness. Lesions were present throughout body including groin area for last 9 months to 01 year
- Both were earlier treated with various antifungal therapies (oral & local) and had good response but the rashes re-occurred at the same location after the discontinuation of therapy
- Medical, social, and family history insignificant
- Both were non-pregnant, non-breastfeeding, non-diabetic and bono-immunocompromised

### Second Visit

- Blood investigations were performed: FBS, SGOT, SGPT, S. ALP, blood urea and serum creatinine, CBP, ESR, CUE
- At baseline: KOH examination done, suggestive of fungal infection

### Third Visit

- Patients were enrolled in the study in May, 2016 after obtaining consent
- Maintenance of hygienic environment and diet restriction as per Unani texts.
- Itrifal Shahtra, orally (a polyherbal unani formulation) 5gm two times a day (after breakfast & dinner)
- *Marham Kharish Jadeed* an ointment, applied after shower & Bed time or whenever required
- Medicines were provided by the institute
- Whole intervention was administered for 12 weeks with regular follow ups

### Diagnostic Assessment

Both patients were enrolled in the study in May, 2016 after confirmation of the diagnosis (Figure 1 (a) 2 (a)). The

potassium hydroxide (KOH) test of skin scrapings of both the cases was done at baseline, showed branching hyphae and conidia on microscopy which is suggestive of fungal infection. Biochemical (Fasting blood sugar, SGOT, SGPT, S. ALP, blood urea and serum creatinine) and pathological investigations (complete blood picture, ESR, complete urine examination) were carried out and found within normal limits.

### Therapeutic Intervention

After a complete explanation of the treatment, consent was obtained from both patients. Itrifal Shahtra 5 g (a polyherbal unani formulation; semisolid form) was administered orally two times after breakfast and dinner; and for local application an ointment, *Marham Kharish Jadeed* was applied on all lesions, covering the margins during mornings and bed times or when the patients experienced itching (both medicines were provided by the institute). The whole treatment was given for a duration of 12 weeks with regular follow ups<sup>11,12</sup>. During the treatment, patients were advised diet restriction to the food items (non-vegetarian diet, spicy and oily foods and of food containing tamarind, dry mango powder) as described in classical Unani text. Patients were also advised to avoid close contact and maintain hygienic environment by taking regular showers; wearing of loose cotton clothes; thoroughly drying the body after bath; and frequently washing of towels and bed linen.

### Follow-up and Outcomes

The follow up visits were scheduled every 7 days for the initial 4 weeks of therapy then every 14 days upto 12 weeks of the treatment. At each follow up the number of lesions, severity of itching, erythema, desquamation of skin was assessed. Patients were also asked to bring emptied bottles of the medicine consumed, to know the compliance of the treatment. Any onset of new symptoms like increase in itching, gastric upset, increased bowel movements and other skin eruptions were also enquired to assess the tolerance and safety of the medicine.

**Table I. Composition of Itrifal Shatara<sup>11</sup>**

S. No.	Drug name	Botanical Name	Part Used	Quantity
1.	<i>Shahtara</i>	<i>Fumeria Parviflora Lam.</i>	Leaves	50g
2.	<i>Post Halela Zard</i>	<i>Terminalia chebula</i>	Skin of fruit	50g
3.	<i>Post Halela Kabli</i>	<i>Terminalia chebula</i>	Skin of fruit	30g
4.	<i>Post Balela</i>	<i>Terminalia bellerica</i>	Skin of fruit	20g
5.	<i>Sana</i>	<i>Cassia angustifolia Vahl.</i>	Leaves	10g
6.	<i>Gule Surkh</i>	<i>Rosa damascena Mill.</i>	Flower	5g
7.	<i>Maweez Munaqqa</i>	<i>Vitis vinifera Linn.</i>	Dried fruit	350g

Table 2. Composition of Marham Kharish Jadeed<sup>12</sup>

S. No.	Drug name	Botanical Name	Part Used	Quantity
1.	<i>Barge Hina Saeeda</i>	<i>Lawsonia inermis L.</i>	Leaves	25g
2.	<i>Kath Safaid</i>	<i>Acacia leucophloea Wild.</i>	Bark Extract	25g
3.	<i>Kamila</i>	<i>Mallotus philippinensis Muel-Arg.</i>	Fruit	25g
4.	<i>Kafoor</i>	<i>Cinnamomum camphora</i>	Solid extract	25g
5.	<i>Sange Jarahat</i>	<i>Hyderated magnesium silicate</i>	-	25g
6.	<i>Safaيدا Kashgari</i>	<i>Zinc-Oxide</i>	-	25g
7.	<i>Gandhak</i>	<i>Sulfur</i>	-	50g
8.	<i>Murdarsang</i>	<i>Monoxide of lead</i>	-	50 g
9.	<i>Momeen Safaid</i>	<i>Bees wax</i>	-	125g

The response of treatment was categorized as Complete resolution; markedly resolution and No response (Complete resolution is defined as complete absence of signs and symptoms and markedly response means more than 50% clinical improvement).<sup>13</sup> At the end of 12 weeks of therapy, complete resolution was seen in case-1 [Fig 1(b)] while markedly response was reported in case-2 [Fig 2(b)]. The blood investigations done at baselines were repeated after completion of therapy to know the safety of the medicines and all were found within normal limits. Patients were followed-up for 6 months after discontinuation of therapy and no recurrence of symptoms were observed during that period.

## Discussion

Chronic and recurrent dermatophytosis is becoming an emerging problem in dermatology clinics. In spite of availability a number of antifungals (azoles, allylamines, and morpholine derivatives) drugs for oral as well as topical use, complete cure of the disease is still challenging.<sup>5,6</sup> As per Unani (*Greeco-Arabic*) classical literature, Qūbā (dermatophytosis) or Dād (ringworm) is an annular or circular superficial skin lesion caused by *mirrah sauda* (MBB) and excessive food intake, producing MBB. It is often associated with severe itching and desquamation of the skin with varied chronicity. If the disease is mild in severity, it is easy to manage but it takes longer to respond to the treatment once turns chronic. The line of treatment is based on removal of MBB through Istifragh (evacuation) along with restriction of MBB producing diets. Use of *Musaffi-i-Dam* (blood purifier) and local application of Zimadat (ointment) is recommended as well.<sup>8,9,10</sup>

*Itrifal Shahtara*, a polyherbal compound formulation (Table 1) is indicated for various skin conditions including Qūbā (dermatophytosis), *Fasād al-Dam* and *Kharish* (Pruritus). It possesses *Musaffi-i-Dam* (Blood purifier) and *Mulliyān* (mild laxative) actions. These actions are due to its main ingredients such as *Fumaria parviflora* Lam, *Terminalia*

*chebula* Retz, *Terminalia bellerica* Retz, *Cassia angustifolia* Vahl, *Rosa damascena* Mill etc.<sup>11</sup> These actions are also substantiated by various scientific reports carried out on these ingredients. Scientific data on *Terminalia chebula*, and *Terminalia bellerica* (constituents of triphala) have shown the anti-inflammatory, antioxidant, free radical scavenging, analgesic and wound healing actions.<sup>14</sup>

As far as *Marham Kharish Jadeed* is concerned, it is a topical ointment (Table 2) having potent *Mubarrid* (refrigerant) and *Qatele Jaraseem* (antimicrobial) actions with extensive indication in dermatological conditions such as Qūbā (dermatophytosis), *Hikka* (Pruritus) and *Fasadud dam*.<sup>12</sup> The main ingredients of this ointment are *Lawsonia inermis*, *Acacia leucophloea* Wild., *Mallotus philippinensis* Muel-Arg., *Cinnamomum camphora* L, Sulphur etc. Among these ingredients, the evidence based data on *Lawsonia inermis* L and Sulphur have been found to be antimicrobial, antifungal with higher efficacy in treatment of *Tinea* infection.<sup>15,16,17</sup>

It can be concluded that *Itrifal Shahtara* along with *Marham Kharish Jadeed* have shown good results in cases of RTC. The efficacy of the therapy has been patient compliant without any obvious side effect. Moreover, the side effect of anti-allergic drugs (excessive sleep) used to suppress itching is not observed by the patients with the said therapy, which is the merit of the study. Therefore, a strong recommendation for the managing RTC through the said therapy is that the randomized controlled clinical trials with adequate sample size may be undertaken.

## Patient Perspective

Both patients were satisfied with the Unani treatment and they were looking forward to take Unani Medicine in future for any other illnesses.

## Informed Consent

For the treatment and Publications (patient descriptions and photographs), written consent has been obtained from both patients for conducting the study.

**Conflict of Interest:** None

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**Conflicts of Interest:** None

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