CASE REPORT

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Ayurvedic Management of Tinea Corporis (Dadru Kustha): A Case Study

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Abstract

Tinea corporis is a superficial dermatophyte infection of the skin. Tinea corporis is most often caused by species of *Trichophyton rubrum*, *T. tonsurans* and *Microsporum canis*. Tinea corporis typically presents as a well-demarcated, sharply circumscribed, oval or circular, mildly erythematous, scaly patch or plaque with a raised leading edge. In Ayurveda, Tinea corporis can be co related with *Dadru* as per the symptoms of the disease.

To evaluate the efficacy of an Ayurvedic treatment regimen for tinea corporis and assess its impact on symptom relief and lesion resolution. A 52-year-old male patient presented with itching, burning sensation, and a scaly ring-shaped patch on the left abdominal wall. The patient was treated with an Ayurvedic protocol comprising oral medicines and local application. The patient reported a significant reduction in itching, with the skin patch nearly disappearing. At the end of treatment, itching had ceased, and the skin patch was completely resolved. The treatment demonstrated effective resolution of symptoms and lesion clearance.

Keywords: *Bruhat Manjisthadi Kwath; Dadru; Gandhak Rasayan; Keshor Guggulu;* Tinea corporis.

INTRODUCTION

Tinea corporisis a superficial dermatophyte infection in the skin, 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, Microsporum* and *Epidermophyton*.[2,3] The lesions advance centrifugally from a core, leaving a central clearing and mild residual scaling; this appears as a "ring" shape giving rise to the term "ringworm."

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Etiology

Tinea corporis is most often caused by species of *Trichophyton rubrum*, *T. tonsurans* and *Microsporum canis*.[2,4,5]

Epidemiology

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. This infection may be acquired as a result of spread from

another site of dermatophyte infection (*e.g.* tinea capitis, tinea pedis, onychomycosis).[1] Transmission among household family members is by far the most common route; children often become infected by spores shed by an infected family member.[2,6]

Clinical Manifestations

The incubation period is approximately 1 to 3 weeks.[1]

- Tinea corporis typically presents as a well-demarcated, sharply circumscribed, oval or circular, mildly erythematous, scaly patch or plaque with a raised leading edge.
- The lesion starts off as a flat scaly spot that spreads centrifugally and clears centrally to form a characteristic annular lesion giving rise to the term 'ringworm.'
- The central area becomes hypopigmented or brown and/or less scaly as the active border progresses outward. The border is usually annular and irregular.
- Occasionally, the border can be papular, vesicular, or pustular.
- Lesions may assume other shapes such as circinate and arcuate.
- Mild pruritus is common.
- In adults, tinea corporis most commonly occurs on exposed skin.
- In children and adolescents, the site of predilection is the trunk.

Diagnosis

The diagnosis of tinea corporis could be done clinically, especially if the lesion is typical. A well-demarcated, sharply circumscribed, erythematous, annular, scaly plaque with a raised leading edge, and scaling and central clearing on the body are the characteristic of Tinea corporis.[1,4]

Treatment

Non-Pharmacologic Measures

The skin should be kept dry and clean. As fungi thrive best in moist and warm environments, patient should be advised to wear light and loose-fitting clothes.[7]

Pharmacotherapy

Localized or superficial tinea corporis usually responds to topical antifungal therapy applied to the lesion and at least 2 cm beyond the lesion once or twice daily for 2–4 weeks.[8] Commonly used topical antifungal agents include azoles (*e.g.* econazole, ketoconazole, miconazole, clotrimazole, miconazole, oxiconazole, sulconazole, sertaconazole, eberconazole, and luliconazole), allylamines (*e.g.* naftifine, terbinafine), benzylamine (butenafine), ciclopirox, and tolnaftate.

Poor compliance, drug resistance, reinfection from close contact and auto-inoculation, and misdiagnosis could be included in causative factors for treatment failure. A topical corticosteroid to the topical antifungal agent are also suggested especially in individuals with inflammatory dermatomycosis.

Prevention

Close contact or sharing of fomites and clothing with an infected individual should be avoided.

CASE DESCRIPTION

A 52-years-old male patient visit the Shalya Tantra OPD at Shri Gulabkunverba Ayurveda Chikitsalaya, Jamanagar within the complaints of itching skin lesion with burning sensation in his left abdominal wall for 15 days. Itching continued at night or after eating sweets.

Patient was a lawyer and when he was on duty, symptoms were aggravated and he had to take Tab LDio-1 (Levocetrizine 5mg) to get relief.

On Examination: There was slightly raised scaly, expanding ring-shaped area on left abdominal wall. Reddish grey discolouration surrounding the patch was observed. Patient had itching present on the scaly area. The condition is shown in Fig. 1.

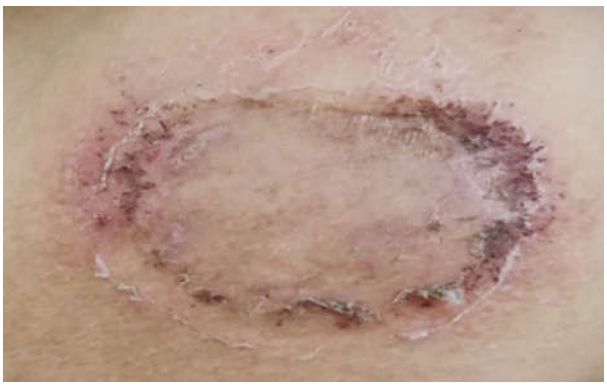

Fig. 1: On 1st day of OPD visit

Therapeutic Intervention: The patient was advised *Keshor Guggulu* (500mg) 2 TDS with the *anupan* of *Bruhat Manjisthadi kwath* (40ml). Tab *Gandhak Rasayan*[9] (250mg) 2 TDS. *Gandhak Malhar* for local application for two times in quantity sufficient. Each follow up was done after 10th day with continuation of the same medicines.

Drug and Posology

Name of Formulation	Dose	Anupan	Time
Tab Keshor Guggulu	500 mg X 2 TDS	Bruhat Manjisthadi kwath	After Meal
Tab Gandhak Rasayan	250 mg X 2 TDS	With Warm water	After Meal
Bruhat Manjisthadi kwath	40ml	---------	After Meal

Pathya-Apathya (Ahar-Vihar): Patient was advised to avoid fermented food. He was also restricted to take excessive sour and sweet taste in diet and Viruddha Ahara. He was also advised to maintain proper personal hygiene.

RESULTS

On 10th day (*i.e.* 1st follow-up), patient had mild itching occasionally. The skin patch almost disappeared. The effect of medicines after 10 days is shown in the Fig. 2. On 2nd follow up patient had no any complaints of itching. And skin patch disappeared which is shown in Fig. 3. Patient was advised to continue the same medicine for next 15 days to prevent its recurrence.

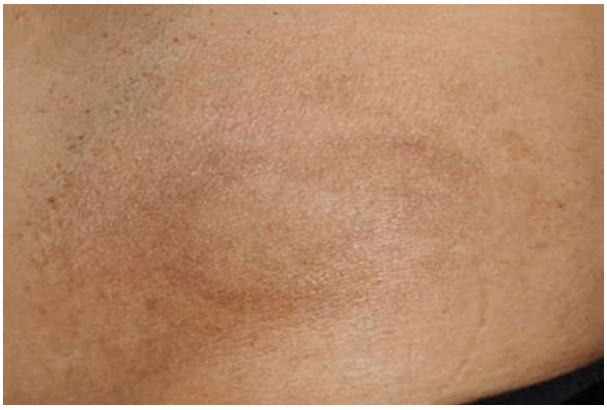

Fig. 2: Follow up on 10th day

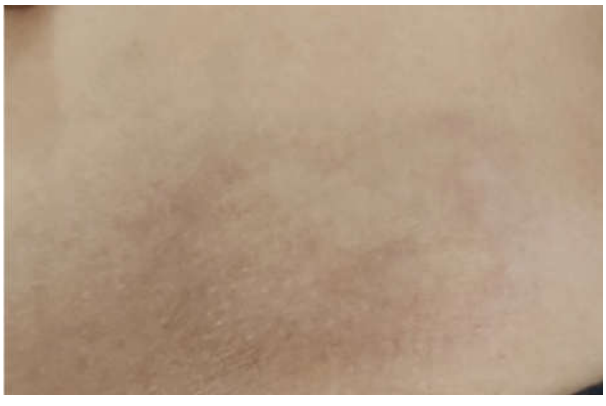

Fig. 3: Follow up on 17th day

Table 1: Timeline of Study

Date	Complaints	Grade of complaints
21/05/2021	Itching	Grade 4
	Skin patch	Grade 2
	Burning	Grade 3
31/5/2021	Itching	Grade 2
	Skin patch	Grade 1
	Burning	Grade 1
09/06/2021	Itching	Grade 1
	Skin patch	Grade 1
	Burning	Grade 1

Table 2: Assessment of Subjective criteria

Criteria	Grade 1	Grade 2	Grade 3	Grade 4
Itching	No pain	Mild	Moderate	Severe
Burning	No pain	Mild	Moderate	Severe

Table 3: Assessment of Objective criteria

Criteria	Grade 1	Grade 2
Skin patch	Absent	Present

DISCUSSION

Discussion on Disease Review

Tinea corporis can be co related with *Dadru as* per the symptoms of the disease.[10] *Dadru* is a one type of *Kshudra Kustha Roga* as per Sushruta Samhita.

Acharya Vaghbhat mentioned that, *Dadru* is *Dirghapratana Durvavata* (elongated and spread out like durva grass); *Atasi Kusum Chhavi* (looks resembling the flower of Atasi and/or Kusum flower); *Utsanna Mandal* (raised patches), *Kandumiti Anusangini* (itching and persisting for a long time). The co-relation with *Atasi pushpa* and *Kusum pushpa* is shown in below fig.[11]

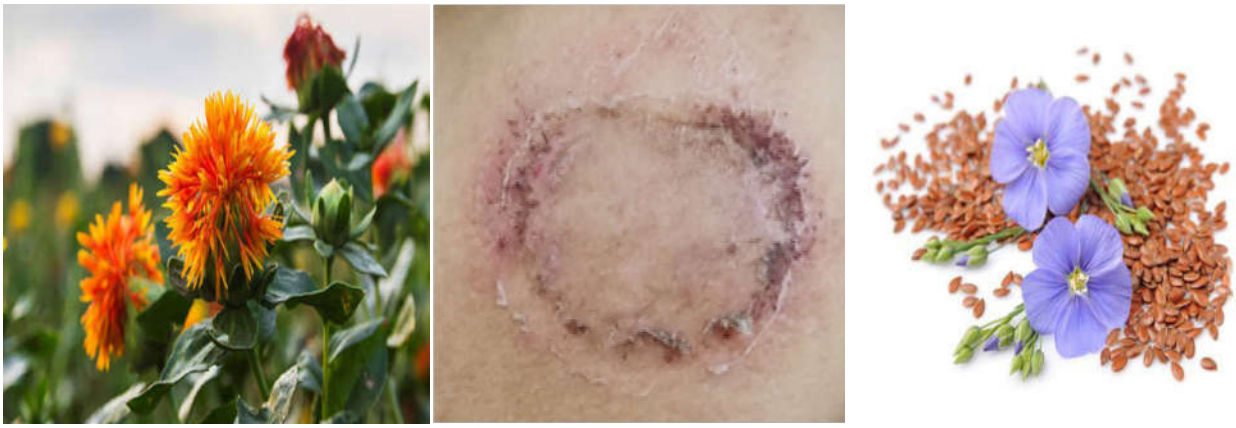

Fig. 4: Correlation between Kusum Flower (left side) and Dadru (Middle) and Atasi Flower (right side).

Acharya Charak mentioned *Dadru* as a *Kshudra Kustha* and also mentioned that *Dadru is* characterised by itching sensation, redness pimples and circular patches with elevated edges.

Acharya Sushruta mentioned *Dadru* as a *Maha Kustha* having predominancy of vitiated *Kapha dosha*.

Dadru (Ringworm) assumes the colour (faint blue) of an Atasi flower or of copper. They are spreading in their nature and are found to be overspread with pustules. *Dadru* has a raised & circular patch and characterised by itching and take a considerable time to be fully patent.

Acharya Sushruta has also mentioned that main vitiated *dosha* for *Dadru* is *Kapha* dosha. Due to *kapha dosha* vitiation, itching, color discoloration, swelling, discharge and heaviness occur at local site.

In this case, raised and circular patches, itching were the chief complaints of the patients which confirms the diagnosis as *Dadru*.

Discussion on Drug

The rogadhikara of *Keshore Gugulu* is all kind of *Vatarakta*, *Vrana, Kasa, Shotha, Kushtha, Panduroga, Rasayana* as per *Bhaishjya Ratnavali*. *Dadru* is one type of *Kustha*. So, *Keshor Guggulu* was effective in the Dadru.[15]

Acharya Sharangdhara mentioned that if *Bruhat Manjisthadi kwath* is taken with *Gugulu* then it will cure all types of *Maha* and *Kshudra kusthas*. In this case, it was given as the anupan of *Keshore Gugulu* which had increased the efficacy of *Keshore Gugulu* and also shows its own action in the disease.

Acharya Yogratnakar described the *Gandhak Rasayan* under *Rasayanadhikar* chapter. This type of *Gandhak Rasayan Yoga* work on *Pittadhara Kala* which acts as *Rasayan* and enhance the *Jatharagni*.

Gandhak acts as antimicrobial, antifungal having *kaphaghna* and *kledaghnan* properties. Other drugs in *Gandhak Rasayan* like *Twak, Ela, Nagkesar, Guduchi, Bibhitaki, Shunthi, Bhringraj* and *Adrak* having *Katu* or *Tikta* or *Kashaya rasa* which reduces predominant *Kapha* and *Pitta doshas*. Majority ingredients of *Gandhak rasayan* are having *Ushna Virya* and *Ruksha* and *Laghu Guna* which help to decrease the vitiated *Kapha dosha* and *Kleda* and helps to maintain the proper functioning of *Dhatwagni* and due to this it will also an effect in the *kustha* disease.

The ingredients of *Gandhak Malhar* are *Shudha Gandhak*, *Shudha Girisindoora*, *Shudha Tankana*, *Karpoora*, *Siktha* and *Tila taila*.[16] As per *Rasa Tarangini Gandhaka vijnaneeyam tarangam* daily application of *Gandhakadhya malahara* cures severe *pama roga,* but many research studies show that it is highly effective in dadru, *padadari* and other *kustha*.[17]

Discussion on Result

The prognosis for localized tinea corporis is excellent with appropriate treatment and patient compliance. Recurrence may occur if therapy is stopped too soon without complete eradication of the fungi. Reinfection may occur if a reservoir of infection is present.[2]

Acharya Sushruta mentioned that all types of *Kustha* including *Dadru*, occur due to sinful deeds and who have no control of his hunger.[18] He also mentioned that the patient who adheres strictly to the foods and activities advocated, undertakes great efforts for treatments and use of special medicines and resorts to penances could be cured from the disease.[20]

In this case, patient was treated with oral medicine, local application, proper hygiene and also proper diet was advised to the patient. Due to

it, the diseased was treated successfully within 17 days.

CONCLUSION

This case study shows that the Ayurvedic treatment regimen effectively addressed the symptoms and lesions of tinea corporis. The combination of oral and topical formulations, along with dietary and hygiene recommendations, contributed to the successful management of the condition.

Declaration of Patient Consent: It was taken from the patient before starting the treatment protocol as well as prior to publication of the case details and pictures.

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