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Role Of Ayurvedic Management Of Tinea Corporis (Dadru Kushtha) With Secondary Eczematization: A Case Study

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ABSTARCT

Skin, known as *Twacha* in Ayurveda, is considered the outer protective covering of the body and an indicator of overall systemic health, reflecting physical, mental, and emotional well-being. Ayurvedic texts classify skin disorders under the broad category of *Kushtha*. Acharya Charaka describes seven types of *Maha Kushtha* and eleven types of *Kshudra Kushtha*, with *Dadru* falling under the latter group, primarily involving an imbalance of Kapha and Pitta dosha. Clinically, the presentation of *Dadru* corresponds to dermatophytosis (Tinea corporis), a common superficial fungal infection characterised by annular erythematous plaques, pruritus, and scaling.

Persistent dermatophytic infections may lead to secondary eczematous changes due to disruption of the skin barrier and heightened immune responses. Ayurveda attributes these chronic pathological features to aggravated Pitta and Kapha, along with *Ama* deposition in peripheral tissues. Therapeutic strategies emphasise both *Shamana* (pacification) and *Shodhana* (purification) approaches to restore dosha equilibrium and skin homeostasis.

Integrative management incorporating *Virechana Karma* (purgation), *Jalaukavacharana* (leech therapy), and targeted topical herbal formulations such as *Nimba Taila* may improve local circulation, promote tissue repair, and provide antimicrobial action. Modern diagnostic techniques, including KOH microscopy and fungal culture support accurate identification and antifungal selection. This article evaluates a multimodal Ayurvedic approach involving *Jalaukavacharana*, *Virechana*, and *Nimba Taila* in managing Tinea corporis (*Dadru Kushtha*) with secondary eczematization, highlighting their potential role in enhancing skin barrier function and achieving sustainable clinical outcomes.

Keywords: Tinea corporis, *Dadru Kushtha, Virechana Karma, Nimba Taila, Ayurveda,* Secondary eczematization, Antifungal, *Shodhana, Krimighna.*

INTRODUCTION

Skin is the largest organ of the body and its size and external location makes it susceptible to various diseases. In recent years. There has been a considerable amount of increase in skin diseases in India.[1] In Ayurveda, all skin diseases are classified under term '*Kushtha'*, *Acharya Charak* has described 7 types of *Mahakushtha* and 11 types of *Kshudra kushtha*. According to *Charak*, 'Dadru' is among *Kshudra kushtha*[2] and *Mahakushtha* according to *Acharya Sushruta*.[3] Dadru is a *tridoshaj vikara* with *pitta kaphaj* predominance.[4] It involves clinical features like *Kandu, Raga, Pidika, mandala*.[5]

सराग कण्डु पिद्कं दद्रु मंदालुद्गतं॥ च.चि.7/33

These symptoms are very similar with the features of Tinea like pruritic, erythema, vesicles, pustules, spreading all over the body etc. Tinea corporis, more commonly known as ringworm, is a superficial dermatophyte skin infection caused by fungi belonging to genera to Trichophyton, Epidermophyton and Microsporum. This condition typically affects the body's glabrous (non-hairy) areas and presents as annular, scaly plaques with central clearing and an active, erythematous, sometimes raised border.[6] 5 out of 1000 people are suffering from Tinea infections.[7] In modern conventional treatments include topical antifungals and corticosteroids, which often lead to recurrence and resistance. Chronic dermatophytic condition leads to secondary eczematous lesions presenting with pruritus (intense itching), erythema, and scaling.[8] According to Ayurveda, the treatment modalities used in this case study are *Shodhana chikitsa-Virechana karma* and jalaukavcharan and *Shamana chikitsa-Nimba tail* for local applications.

Aims and Objectives

1. To evaluate the role of jalaukavacharan in chronic tinea with secondary eczematous condition.
2. To evaluate the role of *Virechana Karma* in Tinea corporis (*Dadru Kushtha*) with secondary eczema.
3. To assess the efficacy of *Nimba Taila* in the local management of lesions.
4. To study the combined effect of *Shodhana* and *Shamana* therapy in the prevention of recurrence.

Materials and Methods

A single case was selected based on classical Ayurvedic and clinical dermatological symptoms of *Dadru Kushtha* corresponding to Tinea corporis with secondary eczematous changes. The inclusion criteria involved well-defined erythematous annular plaques, pruritus, scaling, and chronic recurrence despite conventional antifungal therapy. Diagnostic confirmation was supported by KOH microscopy.

Intervention Protocol

1. **Jalaukavacharana (Leech Therapy):**

Medicinal leeches were applied to inflamed and eczematous areas to alleviate local congestion and reduce inflammatory mediators. Sessions were conducted every 4 days over a 20-day period.

2. **Purva Karma:**

Snehapana with *Panchatikta Ghrita* was administered for 5 to 7 days according to the digestive capacity of the patient. This was followed by *Swedana* to facilitate dosha mobilization.

3. **Pradhana Karma:**

Virechana Karma was performed using *Icchabhedi Rasa* as the purgative agent until *Madhyama Shuddhi* signs were achieved.

4. **Paschat Karma:**

A standard *Sansarjana Krama* dietary regimen was advised for 3 to 5 days to restore Agni and stabilize digestion post-purgation.

5. **Local Application:**
   Nimba Taila, prepared using *Nimba Beej* with *Tila Taila*, was applied topically over lesions twice daily for 20 days to provide antifungal and anti-inflammatory action.

Outcome measures included changes in itching severity, erythema, scaling, lesion size, and recurrence pattern.

Case Report

A 43-year-old female resident of Mumbai, Maharashtra, attended the Panchakarma OPD at Sion Ayurveda Medical College with complaints of widespread pruritic, ring-shaped lesions predominantly involving the buttocks, back, and axillary region. Symptoms persisted for 3 to 4 years, with a recent flare-up in the preceding 2 months.

Chief Complaints:

• Erythematous annular lesions
• Intense itching
• Scaling

Associated Complaints:

• Irritability
• Disturbed sleep
• Constipation
• Reduced appetite

History of Present Illness

The patient was asymptomatic 4 years prior, then gradually developed dermatophytic lesions. She received repeated treatment from dermatology clinics including oral antifungals and prolonged topical corticosteroids. Despite medication continuation for over 3 years, lesions recurred frequently, and eczematous changes developed, along with burning sensation and severe pruritus. Dissatisfaction with persistent symptoms and side-effects led her to seek Ayurvedic intervention.

Dietary History

Daily consumption of curd, fermented foods, bakery products, and frequent tea intake with biscuits indicated a dietary pattern that may aggravate Kapha and promote *Ama* formation.

Past History

No known systemic illness.

Family History

Non-contributory.

Menstrual History

Regular cycles every 30 days.

Clinical Examination:

General Examination

Pallor: Absent
Icterus: Absent
Edema: Absent
Built: Moderate
Tongue: Coated

Dashavidha Parikshana

- *Prakriti:* Kapha-Pitta
- *Vikruti:* Kapha-Pittaja
- *Satva:* Avara
- *Satmya:* Madhyama
- *Sara:* Pravara
- *Samhanana:* Madhyama
- *Ahara Shakti:* Madhyama
- *Vyayama Shakti:* Madhyama
- *Pramana:* Madhyama
- *Vaya:* 43 years

Systemic Examination

CVS: S1 S2 normal, no murmurs
RS: Normal vesicular breath sounds
P/A: Soft, non-tender
CNS: Conscious, oriented, NAD

Vital Signs

BP: 120/70 mmHg
Pulse: 72/min
Temperature: 98.7°F
Respiratory rate: 18/min

Local Examination

Sharply demarcated, erythematous, circular plaques with peripheral scaling observed over buttocks, back, and axilla.

Investigations

- **KOH mount:** Positive for dermatophyte hyphae
- **Routine blood tests:** Within normal limits
- **Random Blood Sugar:** Normal

Diagnosis

Based on detailed Ayurvedic assessment and supportive laboratory findings, the condition was diagnosed as *Dadru Kushtha* (Tinea corporis) with chronic recurrent pathology and secondary eczematization.

Intervention

The patient was managed using a combined Shodhana and Shamana approach, focusing on Kapha-Pitta pacification and restoration of skin barrier function. The primary therapeutic components included *Jalaukavacharana, Virechana Karma* and topical *Nimba Taila* application.

A. Shodhana Chikitsa

a. Jalaukavacharana (Leech Therapy)

Medicinal leeches (*Hirudo medicinalis*) were applied local to the lesion area to facilitate removal of vitiated Rakta and inflammatory exudates.

- **Frequency:** Every 4th day for a total duration of 20 days
- **Sets Used:** Two sets of leeches per session
- **Application Time:** 30–45 minutes until spontaneous detachment

• **Post-care:** The site was cleansed with sterile gauze and *Haridra* powder was applied due to its antiseptic and wound healing properties, followed by gentle occlusive dressing to avoid contamination This therapy aimed to reduce congestion, erythema, edema, and provide symptomatic relief from itching by improving local microcirculation.

b. Virechana Karma (Therapeutic Purgation)

Virechana was planned to eliminate accumulated Pitta-Kapha toxins and normalize systemic inflammatory responses.

Purva Karma (Preparatory Phase)

• *Deepana-Pachana* with *Aampachak Vati* 250 mg, thrice daily for 3 days

• *Abhyantar Snehapana* using *Panchatikta Ghrita* with increasing dosage for 5 days until *Samyak Sneha Lakshana* were noted:

i. Day 1: 30 ml
ii. Day 2: 60 ml
iii. Day 3: 90 ml
iv. Day 4: 120 ml
v. Day 5: 150 ml

• Bahya Snehan and Swedana were performed on Day 6 and 7 to soften and mobilize doshas

• On Day 8, Virechana Karma was administered

Pradhana Karma (Main Procedure)

• Whole body *Snehana* and *Swedana* on the morning of procedure

• **Purgative drug:** *Icchabhedi Rasa* (2 tablets) with normal or cold water

• **Shuddhi Assessment:** A total of 24 *Vega* were achieved, with *Kaphanta Shuddhi* indicating successful Pitta-Kapha elimination

Paschat Karma (Post-Procedure Care)

• *Sansarjana Krama* including graduated light diet for 3–5 days to reestablish optimal digestive fire

B. Shamana Chikitsa (Palliative Therapy)

Topical *Nimba Taila* was prescribed to address superficial infection and restore skin integrity.

Nimba Taila Composition

• *Nimba Beej* – 1 part
• Water – 16 parts
• *Murchita Tila Taila* – 4 parts

Neem (*Azadirachta indica*) contains bioactive compounds such as nimbidin and azadirachtin, recognized for antifungal, antimicrobial, and anti-inflammatory actions. The oil supports re-epithelialization, reduces itching, and prevents secondary infection.

• **Application:** Twice daily over affected lesions for 20 days

Assessment parameters with their grading:

Table no. 1

Symptoms	**Grade 0**	**Grade 1**	**Grade 2**	**Grade 3**
Kandu (Itching)	Absent	Mild or occasional Itching	Moderate or frequent itching	Severe Itching
Utsanna Mandala (Elevated circular lesion)	Absent	Mild elevated lesion	Moderate elevated lesion	Severe elevated lesion
Raaga (Erythema)	Absent	Mild redness (pinkish appearance)	Moderate redness	Deep brown appearance
Twakvavivarnya (Discoloration)	Absent	Mild	Moderate	Severe
Rukshata	Absent	Mild	Moderate	Severe

No of lesions: 3

Outcomes & Observations:

Final assessment:

Symptoms	**Before treatment**	**After treatment**
Raga (erythema)	3	0
Kandu (itching)	3	1
Rukshata (scaling)	2	0
Utsana mandala (elevated circular skin lesion)	3	0
Twakvaivarnya (Discoloration)	3	0

- Before treatment gradation of *kandu* (itching) was 3 which was reduced to 1 after treatment.
- Before treatment gradation of *raga* (erythema) was 3 which was reduced to 0 after treatment.
- Before treatment gradation of *rukshata* (scaling) was 2 which was reduced to 0 after treatment.
- Before treatment gradation of *utsana mandala* (circular skin lesion) was 3 which was reduced to 0 after treatment.
- Before treatment gradation of *twakvaivarnya* (discoloration) was 3 which was reduced to 0 after treatment.
- Number of lesions after treatment were 0.

Thus, complete improvement was observed in all symptoms after completion of treatment. Same can be seen in the following pictures taken before and after treatments.

Before treatment:

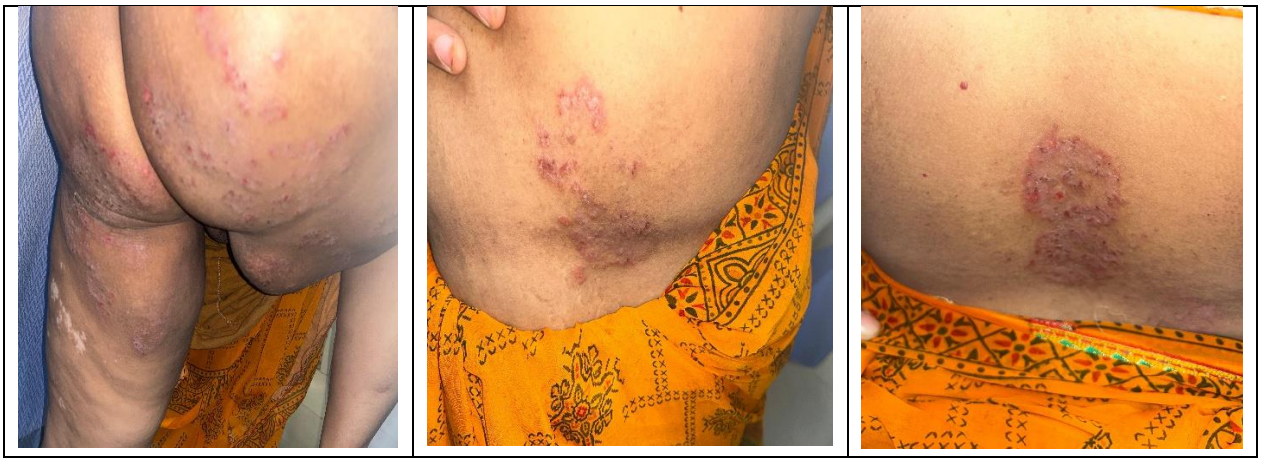

Figure no.1: images of buttocks, back and lower abdominal region after treatment.

After treatment:

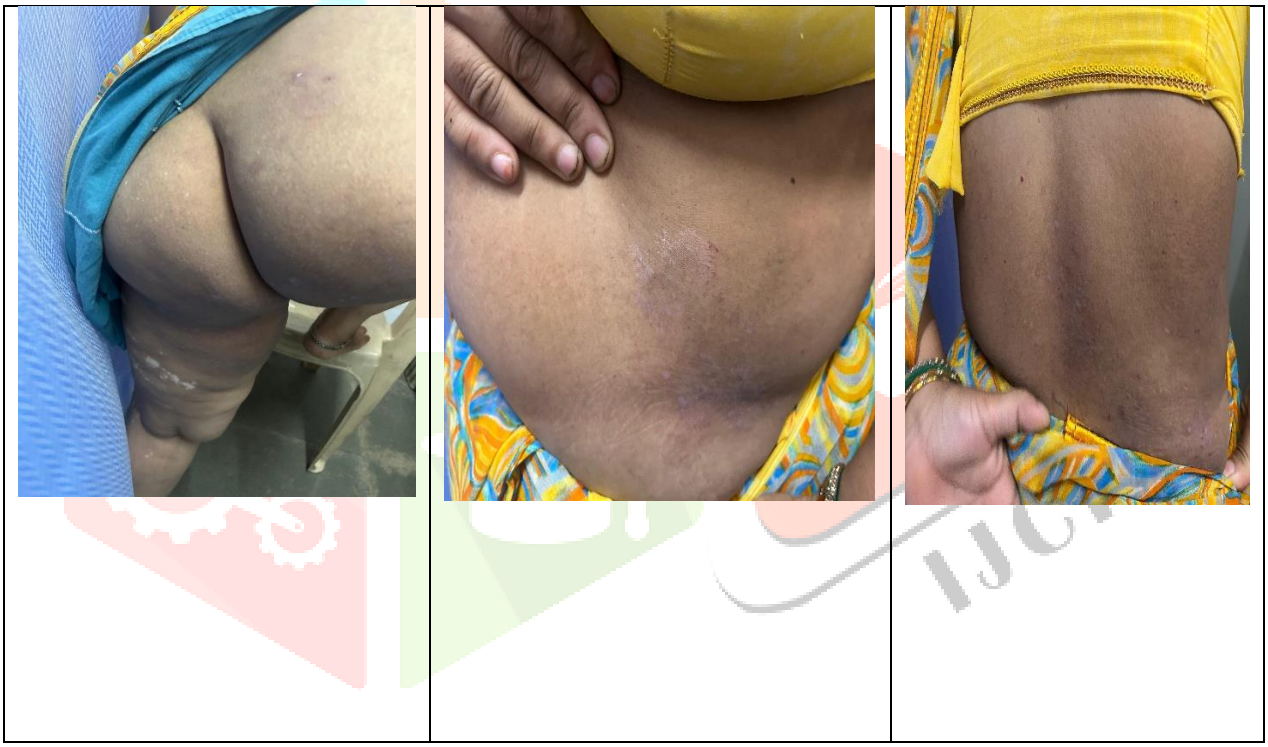

Figure no.1: images of buttocks, back and lower abdominal region after treatment.

Discussion:

In Ayurveda, the treatment of diseases follows the principles of *Hetuviparita Chikitsa* (eliminating the root cause) and *Vyadhiviparita Chikitsa* (alleviating disease symptoms). In the case of *Dadru Kustha* complicated with eczematous patch, which is caused by the vitiation of *Pitta* and *Kapha doshas*, *Jalaukavcharan* (leech therapy) is locally reduces the inflammation, improves blood microcirculation and aids in resolution of eczematous changes. Hirudin present in saliva of leech help in the processing of bloodletting Action of hirudin and hyaluronidaze improve not only the blood circulation but also other organ. Using leech promotes the increasing local immunity. Leech application is effective in reducing pain this supports the analgesic action. Leech saliva contains the special anesthetic help to relieve pain and action anti-inflammatory to relive oedema, erythema.[10] *Virechana Karma* is considered the most effective purificatory therapy. Initially, *abhyantar snehpana* was carried out for five days using *Panchtikta ghruta*. After observing *samyak snehana lakshanas*, a two-day rest period i.e. *Vishrama Kala* was given, during

which *Bahya Snehana* and *Sarvanga Swedana* were performed. Following this, *Virechana karma* was advised using *Icchabhedi rasa.* This procedure helped pacify the aggravated *Pitta* and eliminate *Kapha*, leading to a marked reduction in itching and erythema. After *Virechana*, a five-day *Sansarjana Krama* (post-detox dietary regimen) was followed to stabilize digestion. Along with this treatment local application of *Nimba taila* was advised to patient. *Nimba* (*Azadirachta indica)* commonly known as the neem tree, is famous for its biological properties, such as antimicrobial, anti-inflammatory, and antioxidant properties in the seed.[11] *Neem* (Azadirachta indica) exhibits potent antifungal effects attributed to its diverse array of bioactive compounds and their multifaceted mechanisms of action. These mechanisms include the disruption of fungal cell membranes, inhibition of fungal enzyme activity, interference with fungal cell wall synthesis, and modulation of fungal gene expression.[12]

Probable Mode of Action:

Jalaukavacharana (Leech Therapy)

Jalaukavacharana assists in evacuating *Dushta Rakta* from the affected region, which contributes to the reduction of local *Pitta* and *Kapha* vitiation. This leads to a decrease in hallmark symptoms such as erythema, pruritus, and inflammation. Leech saliva contains pharmacologically active biomolecules including hirudin, bdellins, and hyaluronidase, which exhibit anticoagulant, anti-inflammatory, antimicrobial, and analgesic properties. These actions support improved blood perfusion, reduction of secondary infection, and enhanced tissue repair. By promoting *Vrana Shodhana* and *Ropana*, Jalaukavacharana helps restore the physiological function of skin tissue in chronic Dadru Kushta associated with eczematous changes.

Virechana Karma

Virechana serves as a prime purification therapy targeting *Pitta* and *Kapha* doshas through the lower gastrointestinal pathway (*Adhobhaga marga*). The removal of these vitiated doshas results in improved Rakta dhatu status and a marked decline in itching, scaling, and inflammatory responses. Detoxification enhances metabolic functioning at the level of *Twak*, leading to normalization of skin integrity and immune response. Thus, Virechana contributes significantly to reducing recurrence rates in chronic fungal dermatoses.

Nimba Taila

Nimba (Azadirachta indica) holds *Tikta*, *Kashaya rasa*, *Laghu* and *Ruksha guna*, with *Sheeta virya* and strong *Kaphapittahara* actions. Pharmacological studies demonstrate its potent antifungal, antibacterial, antioxidant, and anti-inflammatory effects. The active constituents interfere with fungal cell membrane stability, inhibit microbial growth, and reduce local hypersensitivity. The Tila Taila base acts as a bio-enhancer, facilitating deeper penetration and nourishment of *Twak dhatu*. These combined factors support faster resolution of fungal lesions and reversal of pathological skin changes.

Conclusion:

Dadru Kushta is categorized under *Kshudra Kushtha* in Ayurvedic literature and clinically correlates with Tinea corporis, a superficial fungal infection that may progress to chronicity with eczematous alterations. When conventional management fails to offer sustained relief, an integrative Ayurvedic treatment approach proves beneficial.

This case demonstrated that Virechana Karma provided systemic purification by correcting the underlying *Pitta–Kapha* imbalance and Rakta dushti responsible for inflammatory responses. Jalaukavacharana offered targeted local intervention by improving microcirculation and reducing inflammatory mediators. Meanwhile, Nimba Taila worked as a topical antifungal and skin restorative formulation.

Complete remission of symptoms was achieved without recurrence during the immediate post-treatment period. The findings suggest that combining Shodhana and Shamana therapies may provide a more effective and sustainable therapeutic outcome in chronic Dadru Kushta complicated with secondary eczematization. Further controlled clinical studies with larger sample sizes are recommended to validate these results and strengthen evidence-based integrative dermatological care.

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