

## A CASE SERIES STUDY TO ASSESS THE EFFECTIVENESS OF CHANDRASAKALADI VATAKA AND KANDWADAU LEPA CHURNA IN THE MANAGEMENT OF DADRU KUSTHA

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### ABSTRACT

**Introduction:** The skin serves as a reflection of a person's internal health. Kustha is a vyadhi which manifests itself on twacha, is defined as "Kushnati vapuh iti kushtham". It renders disfigurement and ugliness to the body. Dadru, a subtype of kustha is a pitta- kapha pradhan tridosha janya vyadhi having clinical features: kandu(itching), raga(erythema), pidika(eruptions), utsannamandal (elevated circular lesions). Symptomatically, it can be correlated to the Dermatophytosis (superficial mycotic infections). According to WHO prevalence rate of superficial mycotic infections is around 20 -25%. Additionally around 60% of those affected indicate that they have recurrent infections. Humid weather, intense monsoon, muggy summers along with faulty dietary practices & lifestyle habits, poor hygiene, harbours the growth of fungi. Due to its stubborn sustenance and reoccurring nature

brings about physical and mental distress, compromising quality of life and posing great challenge to the healthcare system. **Objective:** So, the present study was undertaken to evaluate the efficacy of Chandrasakaladi vataka and Kandwadau lepa churna in the management of Dadru kustha. It is a single arm interventional clinical trial which was conducted at, Dept. of Kayachikitsa, Govt. Ayurvedic College and Hospital Jalukbari Guwahati-14, involving 10 patients. The objective of the study was to assess the effect of the

above-mentioned formulations on the symptom's relief and lesion resolution. **Discussion:** The formulations used offered Kusthaghna, Kapha-Pittahara, Krimighna, Kandughna, Vranasodhana, Raktaprasadana, Lekhaniya, Sothahara properties catering to the need of the disease. **Result:** Thus, the subject exhibited significant improvement in both subjective and objective parameters by the end of the study, reinforcing strong faith and confidence in the Ayurvedic healthcare system.

**KEYWORDS:** Skin, Dadru kustha, Tinea infection, Chandrasakaladi vataka and Kandwadau lepa churna.

## INTRODUCTION

In Ayurveda, Twacha (skin) is regarded as an ornament of the human body, playing a vital role in enhancing physical appearance, radiance, and contributing to an individual's confidence and overall well-being. Kustha is a topic that vividly covers various skin ailments mentioned in Samhitas. Additionally some ailments are also described under Ksudrarogas separately. Due to its complexity, severely distressing symptoms, and alarming nature, Kustha vyadhi is classified as a Mahagada<sup>[1]</sup> (major disease). The pathogenesis (samprapti) of Kustha begins with the interaction of Tridosha with Twak, Rakta, Mamsa, and Lasika—collectively termed as Saptakodravya Sangraha<sup>[2]</sup>—and may progressively involve deeper dhatus based on the intensity of pathogenic factors.

Dadru kustha categorized under Mahakushtha by Sushrutacharya and Vagbhatacharya while amongst Kshudrakustha by Charakacharya and Madhavkara is a pitta – kapha pradhan tridosha janya vyadhi exhibiting clinical features of kandu (itching), raga (erythema), pidika (eruptions), utsannamandal (circular elevated lesions).<sup>[3]</sup> As per the symptoms stated, it closely relates to Dermatophytosis (superficial mycotic infection).<sup>[4]</sup> It is caused by the dermatophyte (mould infection) that thrive only on the dead keratinized layers of skin, hair and nails. Thus, having its variety manifesting on various parts of the body and named differently. Tinea or commonly called ringworm due to its ring shape appearance has three genera: Trichophyton, Epidermophyton and Microsporum with multiple species within each. These fungi are categorized by their preferred habitat: Anthrophilic (human-associated), Zoophilic (animal-associated), or Geophilic (soil-dwelling). Dermatophytosis is characterized by severe itching and circular, red, scaly patches. The active edges of the lesions often display papulovesicular eruptions. As the infection progresses, the lesions expand outward, typically showing central clearing with residual pigmentation.<sup>[5]</sup> Most common causative organisms,

like *Trichophyton rubrum* species, have a global distribution, while others exhibit regional variation. Although the clinical presentation of scatteredly found *Tinea* infections in the texts,—except for *Tinea corporis*—does not exactly align with descriptions in Ayurveda, they can still be collectively categorized as ‘Dadru’. This is because the underlying causative fungi and symptomatology remain consistent, with only the morphological features varying based on the site of infection. According to WHO prevalence rate of superficial mycotic infections is around 20 -25% .Additionally around 60% of those affected indicate that they have recurrent infections.<sup>[6]</sup> They are highly contagious with its source of infection either through infected human contact, stray animals, or soil causing chronic infection and potentially can cause reoccurrence if infection reservoir persists. The same *Nidana* has been concisely described by Sushrutacharya, supporting the involvement of *Krimi* (which may be correlated with fungi in modern science) and *Aupsargika* factors (indicating communicability) in the pathogenesis of *Dadru Kustha*.<sup>[7]</sup> This aligns with contemporary understanding of its infectious origin, mode of transmission, and spread. Various factors from hot humid weather to rains, to disease condition like chronic diabetes, to being obese, to being immunocompromised, to having moist damp skin and following a very poor hygiene along with faulty dietary practices and lifestyle habits caters to the growth and sustenance of the organism on the skin for a longer time. Superficial fungal infections typically responds well to topical antifungal treatment, which should be applied directly to the lesion and extend at least 2 cm beyond its edges, once or twice daily for a duration of 2 to 4 weeks. Common topical antifungal agents include azoles (such as Econazole, ketoconazole, miconazole, clotrimazole, oxiconazole, sulconazole, sertaconazole, eberconazole, and luliconazole), Allylamines (e.g., naftifine, terbinafine), benzylamines (e.g., butenafine), as well as Ciclopirox and tolnaftate.<sup>[8]</sup> Treatment failure may result from factors such as poor adherence to therapy, antifungal resistance, reinfection from close contacts or self-inoculation, and incorrect diagnosis. In cases of inflammatory dermatomycosis, the addition of a topical corticosteroid to the antifungal agent may be recommended along with oral medications.

It distresses the human physically, mentally due to intense itch and challenges the already established regimen used in modern day practise as it shows high resistance, with reoccurrence and proven hepatotoxic in nature. Hence, Ayurvedic treatment protocol comes to the safer rescue. For any *kustha vyadhi*, both *Antaha - parimarjan* (internal) involving *shodhanadi*, *shamandi kriya* with *rasayan* is advised and *Bahir - parimarjan* (external) *lepadi kriya* is recommended.

In this context, the present study was undertaken to assess the combined therapeutic efficacy of Ayurvedic interventions, with an emphasis on providing symptomatic relief, promoting lesion resolution, and ensuring sustained clinical benefits. Further elaboration is provided in the subsequent sections of this article.

## MATERIALS AND METHODS

**Aims and Objective:** To evaluate the combined efficacy of Chandrasakaladi vatak with kandwadau lepa churna in the management of Dadru Kustha.

**Centre of study:** Govt. Ayurvedic College & Hospital – Jalukbari, Guwahati-14 Assam.

**Study setting and selection of patient:** This was an open-label, single-arm clinical study, conducted at GACH – Guwahati. A total of 10 patients were taken from OPD & IPD of Kayachikitsa Department with Dadru Kushta. Only those who signed the informed consent, meeting inclusion criteria were selected through random sampling, and were treated with oral medicine and external application.

**Preparation of Trial drug:** The drugs were prepared in the Rasashala of GACH- Jalukbari, Guwahati.

### Ingredients of

#### 1. Chandrasakaladi vatak

चन्द्रशकलाग्निरजनीविडंगतुवरस्थ्यरुष्करत्रिफलाभि।

वटका गुडांशकलृप्ता समस्तकुष्ठानि नाशयन्त्यभ्यस्ता।।(अ.ह. चि.१९/४४)

Ingredients	Botanical name	Family	Parts used	Quantity
Bakuchi(Chandrasakala)	<i>Psoralea corylifolia</i>	Leguminosae	Seed	1 part
Chitrakmula	<i>Plumbago zeylanica</i>	Plumbaginaceae	Root bark	1 part
Rajni (Haridra)	<i>Curcuma longa</i>	Zingiberaceae	Rhizome (Kanda)	1 part
Vidanga	<i>Embelia ribes</i>	Myrsinaceae	Fruit	1 part
Tuvaraka	<i>Hydnocarpus laurifolia</i>	Flacourtiaceae	Seed	1 part
Suddha Bhallataka	<i>Semecarpus anacardium</i>	Anacardiaceae	Purified Fruit	1 part
Haritaki	<i>Terminalia chebula</i>	Combretaceae	Fruit	1 part
Bibhitaki	<i>Terminalia bellirica</i>	Combretaceae	Fruit	1 part
Amalaki	<i>Embolica officinalis</i>	Euphorbiaceae	Fruit	1 part
Guda	<i>Saccharum officinarum</i>	Poaceae	Used as a binding agent	Quantity sufficient

- Dose : 1 karsha (12grams)
- Vataka weighing 2gms each were prepared, 2 vataka, thrice daily after food (for 28 days).
- To be consumed with lukewarm water.

## 2. Kandwadau lepa churna

सिद्धार्थरजनीकुष्ठप्रपुन्नाटतिलै सह। कटु तैलेन समिश्रं ददद्घ्न च प्रलेपन।। (शा.सं.उ ११/५६)

Ingredients	Botanical name	Family	Part used	Quantity
Siddhartha	<i>Brassica campestris</i>	Cruciferae	Seed	Q.S
Rajni (Haridra)	<i>Curcuma longa</i>	Zingiberaceae	Rhizome(Kanda)	Q.S
Kustha	<i>Sassuria lappa</i>	Compositae	Root	Q.S
Chakramarda	<i>Cassia tora</i>	Leguminaceae	Seed	Q.S
Tila	<i>Sesamum indicum</i>	Pedaliaceae	Seed	Q.S

- Amount – quantity sufficient, twice daily, for 28 days.
- Method of application – mix the above churna and make paste with Sarsapa ( katu) tail fresh daily
- Thickness of ¼ th (0.48cm) angula praman of patient's finger till it dries up than rinse with water. (1 angula =1.95cm)

**Table showing: Dose and Drug Administration.**

DRUG	DOSE	TIME DURATION	FREQUENCY
Chandrasakaladi vataka	2 vataka	After breakfast, lunch and dinner.	Thrice a day
Kandwadau lepa churna	Q.S	Morning and Evening	Twice a day

- Duration of treatment: 4 weeks
- Follow up : Evaluation of patients were done on every 7<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup> & 28<sup>th</sup> days by using above mentioned criteria for assessment of symptoms.

**Table Showing: Pathya-apathya**

PATHYA	APATHYA
Mudga, Jangala mamsa	Masha, Virudha Ahara
Karavellaka, Bhallataka	Anupa Mamsa
Koshataki, Nimba	Dahi, Guda, Tila
Patola, Triphala	Dughakurchika
Draksha, Ghrita	Harita shak, Guru-Amla Ahar
Dadima, Puranadhanya	Paryushita Ahara
Nitya Snana	Divaswapna
Mrudu vastra dharana	Atapasevana

## CRITERIA OF EVALUATION

**Diagnostic criteria:** clinically diagnosed for the presence of the following symptoms (as per Bhrihatrayee)

- Kandu (pruritis)
- Raga (erythema)
- Tamra varnani (copper coloured macular rash)
- Atasi pushpavat varna (macular rash similar to flax flower)
- Visarpini pidika (diffused macular rash)
- Dirgha pratan durvaavadat (tendrillike macular rash)
- Unnata mandal (raised circular border)

### Inclusion criteria

- The patients with classical symptoms of dadru as per Charak samhita mentioned in diagnostic criteria
- Patients of either sex, 16 years and above.
- Diagnosed cases of T. corporis, T. cruris, T. faciei, T. barbae as the symptoms closely relates to the dadru symptoms.
- Direct microscopy (10% KOH) skin test positive.
- Patients having mild to moderate distribution of lesion, size of mandala 5-10cm, number of mandal 4-6, pidika <10.
- Patients willing to participate in the study and sign the consent form.

### Exclusion criteria

- Pregnant/Lactating women
- Tinea associated with other skin disorders were excluded.
- Extensive widespread cases will be excluded.
- Patients suffering with systemic disorders like uncontrolled diabetes, HTN, on steroid therapy, immunocompromised condition, autoimmune disorders which interfere with the course of treatment were excluded.
- Cases of T. manuum, T. pedis, T. unguis, T. capitis were excluded.
- Patients exhibiting any hypersensitivity reaction

**Table No 1: Showing subjective assessment criteria: The 12 – item pruritis severity scale.<sup>[9]</sup>**

Questions	Possible answers	Scoring
1. How often did you feel pruritus (itching) in the last 3 day?	a)All the time b)Long itching episodes (morning/afternoon/evening/night) c) Occasional short itching episodes	3 point 2 point 1 point
2. Did pruritus hinder your ability to do simple activities like watching TV or listening to music?	a) Yes b) No	1 point 0 point
3. Did you feel irritated or nervous because of your itching?	a)Yes b) No	1 point 0 point
4. Did pruritus cause you to feel depressed?	a) Yes b) No	1 point 0 point
5. Did pruritus impede your work or learning abilities?	a)Yes b) No	1 point 0 point
6. Did you scratch your skin because of itching?	a)Yes b) No	1 point 0 point
7. Did scratching bring you relief?	a)Yes b)No	0 point 1 point
8. Were you able to refrain from scratching?	a) Yes b) No	0 point 1 point
9. Did you wake up during the night due to pruritus?	a) No b) Yes, 1–2 times c) Yes, 3–4 times d) Yes, 5 times or more	0 point 1 point 2 point 3 point
10. How would you assess the severity of your pruritus in the last 3 days?	a) Very mild b) Mild c) Moderate d) Severe e) Very severe	1 point 2 point 3 point 4 point 5 point
11. Were you able to locate the area of pruritus?	a) Single location b) Large body area c) Generalized pruritus	1 point 2 point 3 point
12. Are excoriations or other scratch lesions present?	a) Yes b) No	1 point 0 point

**Table No 2: Showing Objective criteria<sup>[10]</sup> [A]**

Parameters scoring	0 point	1 point	2 point	3 point	4 point
1.Pidika(Raised spots)	No eruptions	1-3 eruptions	4-6 eruptions	<10 eruptions	10 eruptions
2.Size of Mandala(Lesion extent)	<0.5-1cm	1-3 cm	<5 cm	5-10cm	>10
3.Number of Mandal (Lesion)	No lesion	Only 1 lesion	1-3 lesions	4-6 lesions	>7 lesions
4.KOH Wet Mount	Absent	Present	--	--	--
5.Raga ( Erythema)	No colour change / Normal	Faint to near normal color	Blanching red	Red	Black/Violaceous colour



**[B] Distribution of Lesions<sup>[11]</sup>**

- Mild - Involvement of one region - 1 point
- Moderate- Involvement of more than one but less than equal to three regions – 2 point.
- Disseminated – Involvement of more than three regions – 3 points.

**Laboratory Investigations**

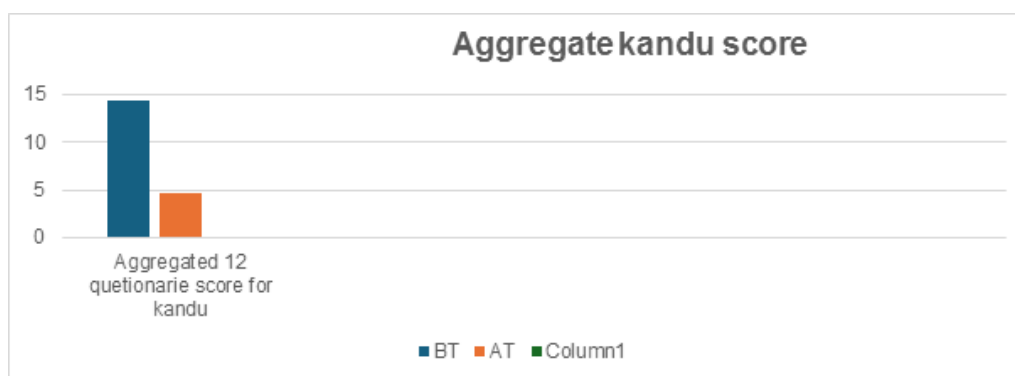
1. Direct microscopy (10% KOH wet mount) will be performed to confirm the presence of fungal hyphae
2. RBS to rule out any suspected diabetic cases.
3. CBC with ESR, LFT

**STATISTICAL ANALYSIS:** Statistical Analysis was done using Paired T test at  $p < 0.05$ .

**RESULTS**

Effect of Chandrasakaladi Vatak with kandwadau lepa churna in management of Dadru Kustha where (n =10)

XBT $\pm$ SD	XAT $\pm$ SD	SED	t9	P value
14.25 $\pm$ 5.26	4.67 $\pm$ 1.30	1.535	6.2443	0.0001



**Note\*:** The BT and AT score represents (Aggregated 12 questionnaire mean score) of 10 patients

Sr. No.	Questions
Q1	How often did you feel pruritus (itching) in the last 3 day?
Q2	Did pruritus hinder your ability to do simple activities like watching TV or listening to music?
Q3	Did you feel irritated or nervous because of your itching?
Q4	Did pruritus cause you to feel depressed?
Q5	Did pruritus impede your work or learning abilities?
Q6	Did you scratch your skin because of itching?
Q7	Did scratching bring you relief?
Q8	Were you able to refrain from scratching?

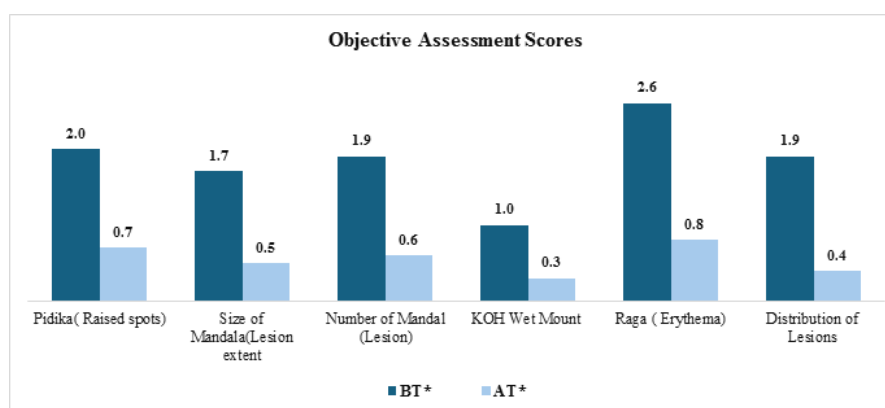
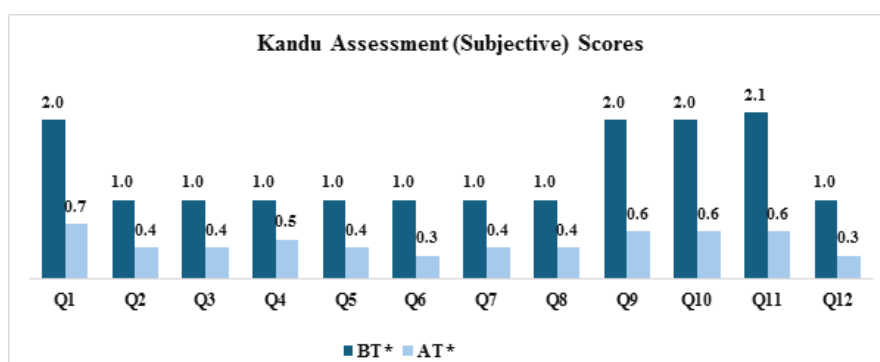


Q9	Did you wake up during the night due to pruritus?
Q10	How would you assess the severity of your pruritus in the last 3 days?
Q11	Were you able to locate the area of pruritus?
Q12	Are excoriations or other scratch lesions present?

Subjective parameter (KANDU)	XBT $\pm$ SD	XAT $\pm$ SD	SED	t9	P value
Q1	2.00 $\pm$ 0.82	0.70 $\pm$ 0.80	0.496	2.6234	0.0277
Q2	1.00 $\pm$ 0.00	0.40 $\pm$ 0.52	0.163	3.6742	0.0051
Q3	1.00 $\pm$ 0.00	0.40 $\pm$ 0.52	0.163	3.6742	0.0051
Q4	1.00 $\pm$ 0.00	0.50 $\pm$ 0.53	0.167	3.000	0.0150
Q5	1.00 $\pm$ 0.00	0.40 $\pm$ 0.52	0.163	3.6742	0.0051
Q6	1.00 $\pm$ 0.00	0.30 $\pm$ 0.48	0.153	4.5826	0.0013
Q7	1.00 $\pm$ 0.00	0.40 $\pm$ 0.52	0.163	3.6742	0.0051
Q8	1.00 $\pm$ 0.00	0.40 $\pm$ 0.52	0.163	3.6742	0.0051
Q9	2.00 $\pm$ 0.94	0.60 $\pm$ 0.52	0.371	3.7717	0.0044
Q10	2.10 $\pm$ 0.88	0.60 $\pm$ 0.52	0.342	4.3916	0.0017
Q11	2.00 $\pm$ 0.94	0.60 $\pm$ 0.52	0.371	3.7717	0.0044
Q12	1.00 $\pm$ 0.00	0.30 $\pm$ 0.48	0.153	4.5826	0.0013

Note\*: The BT and AT score represents mean score of 10 patients

**INTERPRETATIONS:** The trial drug has shown statistically significant effectiveness on the subjective parameters, i.e. all the 12-- item pruritus severity scale and overall reduction of Kandu symptom along with its associated symptoms.



Note\*: The BT and AT score represents mean score of 10 patients

Objective Parameters	XBT $\pm$ SD	XAT $\pm$ SD	SED	t <sub>9</sub>	P value
<b>Pidika (eruptions)</b>	2.00 $\pm$ 0.82	0.60 $\pm$ 0.52	0.221	6.3317	0.0001
<b>Size of mandala (extent)</b>	1.70 $\pm$ 0.95	0.50 $\pm$ 0.53	0.359	3.3425	0.0086
<b>No of Mandala</b>	1.90 $\pm$ 0.88	0.60 $\pm$ 0.70	0.300	4.3333	0.0019
<b>KOH</b>	0.90 $\pm$ 0.32	0.30 $\pm$ 0.48	0.163	3.6742	0.0051
<b>Raga (erythema)</b>	2.60 $\pm$ 0.52	0.80 $\pm$ 0.63	0.249	7.2161	0.0001
<b>Distribution of lesion</b>	1.90 $\pm$ 0.32	0.40 $\pm$ 0.53	0.167	9.0000	0.0001

**INTERPRETATIONS:** The trial drug has shown statistically significant result in the Objective parameters, that of Pidika(eruptions), Size of Mandala (extent), No of Mandala, KOH wet mount, Raga(erythema) and Distribution of lesion.



**Before treatment**



**After treatment**



**Before treatment**



**After treatment**

**Before treatment.****After treatment**

## DISCUSSION

### On the disease

Dadru, a pitta – kapha pradhan tridosha janya vyadhi has Rasa, Rakta, Mamsa, Lasika as the dushya. It can be diagnosed with the help of exhibiting features kandu, raga, pidika, utsanna mandala, in its adhisthana in the twak. Increasing incidence rate of it is observed more, owing to its Aupusargika nidhan explained by Sushrutacharya and justifying its communicability nature. Along with aharja and viharaja nidhan explained, krimi here in context of dadru kustha plays a primary role as Sushrutacharya mentions the cause specifically which serves it spread through the sweda. It is placed differently under Mahakushtha and kshudrakushtha by Acharyas based on chronicity and extent of disease. The symptoms of Dadru in Ayurveda closely resemble those of Dermatophytosis (Tinea/Ringworm) described in modern medicine. This correlation is established based on the striking similarity in clinical features as outlined in both Ayurvedic literature and contemporary scientific understanding. According to Acharyas, undergoing Shodhanadi kriya (purificatory therapy) with Raktamokshana is recommended before initiating Shamanadi kriya like aushadh sevan and lepa upakrama, for its best benefits. This preparatory process may enhance metabolic activity, thereby improving the digestion, absorption, and efficacy of medicines administered during Shamana Chikitsa. Additionally, it facilitates the elimination of accumulated toxins or residual substances from the body. Thus will cater to the need of active resistance offered by today's modern day practise antifungal medications alongside reducing the chances of reoccurrence.

### Discussion on probable mode of action of shamanadi formulations

The ingredients of Chandrasakaladi vatak includes Chandrasakala, Bhallataka, Haritaki, Amlaki, Bhibhitaki, Tugaraka, Chitrakmula, Haridra, Vidanga and Guda with their effects briefly elaborated hereby.

Bakuchi, due to Raktashodhaka (blood-purifying) and Krimighna (antifungal), Ushna Virya and tikshna guna properties, helps eliminate fungal toxins, purifies the blood and skin. Addresses deeper involvement of Rakta and Twak dhatus, alleviates itching, and promotes healing of lesions. Active compounds like psoralen, bakuchiol, exhibit strong antifungal effects, initial interferes with fungal DNA replication, while later disrupts the fungal cell membrane, inhibits spore germination, and prevents the growth.<sup>[12]</sup>

Bhallataka is a potent Ayurvedic herb for managing chronic and recurrent fungal infections. Its antifungal action is supported by both traditional use and modern research, primarily due to active compounds like anacardic acid and semecarpol, which damage fungal cell membranes and inhibit fungal growth. With properties like Kusthaghna, Krimighna, and Kandughna, it promotes detoxification, reduces itching, and heals skin lesions.<sup>[13]</sup>

Haritaki, due to its antifungal, detoxifying, and rejuvenating properties inhibits fungal growth, purifies Rasa and Rakta dhatus, reduces inflammation and itching, and supports skin healing. The presence of compounds like chebulinic acid and gallic acid contributes to its scientifically proven antifungal effects, making it highly effective in both treating and preventing fungal skin infections.<sup>[14]</sup>

Amalaki due to its multifaceted actions helps purify the blood (Raktashodhaka), making it especially effective in Pitta-Kapha dominant skin disorders. Its Kusthaghna and Krimighna properties aid in combating fungal pathogens and healing infected skin. Additionally, it acts as a Rasayana, supporting tissue regeneration and preventing recurrence, while its Shothahara effect helps reduce inflammation and discomfort. Rich in compounds like gallic acid and ellagic acid, Amalaki's efficacy is further supported by scientific studies, reinforcing its role in preventing reoccurrence and promoting healthy skin regeneration.<sup>[15]</sup>

Bhibhitaki is beneficial in Kapha-Pitta dominant Dadru Kustha, relieving itching, redness, and scaling. Its antifungal (Krimighna) and scraping (Lekhana) actions help clear infections and dead tissue. It also purifies the blood (Raktashodhaka) and reduces inflammation

(Shothahara). Rich in gallic acid, ellagic acid, and tannins, it exhibits strong antifungal action, validated by modern research.<sup>[16]</sup>

Tuvaraka, known for its Kusthaghna, Krimighna, and Vranaropaka properties. Rich in hydnocarpic and chaulmoogric acids, exhibits strong antifungal activity against common dermatophytes. It helps reduce itching, inflammation, and fungal load, while promoting healing and preventing recurrence. Its traditional use in Tuvaraka Taila is well supported by modern research.<sup>[17]</sup>

Chitrakmula is valued for its antifungal and skin-purifying actions like Kusthaghna, Krimighna, and Lekhana. It supports digestion (Deepana–Pachana), removes thick skin lesions, and purifies the body. Its active compound, plumbagin, disrupts fungal cell membrane and mitochondrial function, supporting its traditional use in treating fungal skin infections.<sup>[18]</sup>

Haridra due to its Kusthaghna, Krimighna, and Raktaprasadana properties, helps reduce itching, inflammation, and skin lesions, while promoting healing. Modern studies confirm curcumin and turmeric oil possess strong antifungal and anti-inflammatory activity against common dermatophytes, supporting its traditional use in fungal skin infections like Tinea.<sup>[19]</sup>

Vidanga is Katu-Tikta in taste, Laghu, Ruksha, Tikshna in guna, Ushna in veerya, with Katu vipaka, and balances Kapha-Vata. It acts as Krimighna, Kusthaghna, Shodhana, and Lekhana. In Dadru Kustha, it helps eliminate fungal pathogens, detoxifies blood, reduces itching, and scrapes off scaly lesions. Its active compound embelin shows strong antifungal effects by inhibiting fungal growth and relieving itching and inflammation.<sup>[20]</sup>

Guda acts as a natural binder and Yogavahi, enhancing the efficacy of antifungal herbs in Dadru Kustha. Though not antifungal itself, it supports immunity, detoxification, and improves drug delivery, making it a beneficial supportive agent in fungal skin treatments.<sup>[21]</sup>

Thus, Chandrasakaladi Vataka possesses properties such as Agnidīpana (digestive stimulant), Raktashodhana (blood purifier), Samsrāva (detoxifying), Kushthaghna (anti-dermatotic), Krimighna (anti-helminthic), Lekhaniya (scraping), Kandughna (anti-pruritic), Rasayan (rejuvenative) and Pitta-Kaphahara (alleviates Pitta and Kapha). Its predominant Katu, Tikta rasa and Ushna vīrya make it effective against Kapha-dominant disorders like Dadru Kushta. The pathogenesis involves vitiation of Rasa, Rakta, Mamsa, and Ambu dhatus due to



Jatharagni and Rasa agnimandya. Ingredients like Bibhitaki, Amalaki, Chitrakmula enhance Agnidipana and Amapachan, correct Rasa Dhatu dushti, thereby reducing Kapha. Raktashodhana herbs aid in Pittashodhana and restoration of normal Pitta. Thus, the formulation targets multiple facets of Dadru Kushta pathophysiology and promotes skin health through Anshansha Samprapti vighatana.

The lepa used was selected from Sharangdhara Samhita. The ingredients included in it are Chakramarda, Sarsapa, Haridra, Kustha and Tila. It acted as sthanik varnaprasadak, Kandughna, Kusthaghna.

Chakramarda acts as a powerful antifungal by its actions like Krimighna, Kusthaghna, and Lekhana property, helping reduce itching, scaling, and infection. Modern studies confirm its bioactives like chrysophanol and emodin inhibit fungal growth by disrupting cell membranes.<sup>[22]</sup>

Sarsapa is traditionally valued for its Krimighna, Kusthaghna, and Lekhana actions, helping relieve itching and remove fungal crusts in Dadru Kushta. Modern studies confirm that allyl isothiocyanate in mustard disrupts fungal cell membranes, validating its antifungal role in Tinea and similar infections.<sup>[23]</sup>

Kustha is a Kusthaghna and Krimighna herb that relieves itching, inflammation, and Kapha-Vata imbalance in Dadru. Modern research confirms its antifungal compounds like costunolide effectively inhibit dermatophytes, justifying its use both internally and externally in fungal skin infections.<sup>[24]</sup>

Tila acts as a mild antifungal and Yogavahi (carrier), used in Ayurveda for its Kusthaghna, Tvachya, and Vranaropaka actions. It helps heal scaly lesions and enhances the delivery of stronger herbs. Modern studies confirm that sesame oil contains sesamol and sesamin, which inhibit fungal growth, supporting its role in managing fungal skin infections like Dadru.<sup>[25]</sup>

This Lepa, prepared with Sarṣapa Taila, penetrates deeply due to its Sūkṣma and Tīkṣṇa properties, clearing svedavāhi srotas and aiding toxin elimination via sweat. Its combination of Uṣṇa, Rūkṣa, and Kaṭu Vipāka balances Kapha and Pitta, the key doshas in Dadru. Symptomatic relief, especially from Kāṇḍu (itching), is mainly due to the Kandughna action of Chakramarda and Haridra.

In this way, both these formulations act on each component of the Samprāpti Ghāṭaka (pathogenic factors) and effectively bring about Samprāpti Vighatana (disruption of pathogenesis), thereby restoring the balance of Doṣas and resulting in healthy skin.

## CONCLUSION

Dadru, classified under Kustha, is a highly contagious skin disorder, often correlated with Tinea. In the current study, the trial drugs Chandrasakaladi vatak with Kandwadau Lepa churna demonstrated significant effectiveness with respect to reduction in symptoms such as itching (Kandu), redness (Raga), eruptions (Pidika), and raised lesions (Utsanna Mandala). No complications (Vyapada) were reported during the treatment or follow – up period. Maintaining proper hygiene and following dietary and lifestyle guidelines (Pathya-Pathya) also played a crucial role in improving the symptoms.

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