

**A PILOT STUDY TO SEE THE EFFICACY OF NEEM CHOORNA
(AZADIRACHTA INDICA) AND HARITAKI CHOORNA (TERMINALIA
CHEBULA) ON DADRU KUSHTHA**

Dr. Dinesh Chandra Joshi^{1*}, Dr. (Prof.) Sampurna Nand Tiwari² and Dr. Alok Ranjan³

^{1*} P.G. Scholar, ² Ex-Principal & Professor, ³ Assistant Professor,

Department of *Dravyaguna* Government Ayurvedic College & Hospital, Kadamkuan, Patna,
Bihar.

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***Corresponding Author**

Dr. Dinesh Chandra Joshi

P.G. Scholar, Department of
Dravyaguna Government
Ayurvedic College &
Hospital, Kadamkuan,
Patna, Bihar.

ABSTRACT

Dadru is an Ayurvedic term referring to a skin disorder, commonly associated with fungal or bacterial infections. It manifests as circular, raised lesions with itching, inflammation, and sometimes discharge, typically appearing on the groin region, waist, torso, limbs, or scalp. In Ayurveda, *Dadru* is linked to an imbalance of the body's doshas, particularly *Pitta* and *Kapha*, which may be aggravated by factors like poor diet, stress, or exposure to infectious agents. The condition is often treated with herbal remedies, topical applications, and dietary modifications aimed at restoring balance to the *doshas*, along with maintaining proper hygiene and lifestyle practices. The objective of this pilot study was assessing the efficacy of *Neem Choorna* & *Haritaki Choorna* in treating *Dadru*.

Total of five patients diagnosed with classical symptoms of *Dadru* were selected from the OPD of GACH, Patna. The treatment regimen

included 6 grams each of *Neem Choorna* and *Haritaki Choorna*, administered twice daily for a duration of 30 days. Significant improvements were observed in all patients, with a marked reduction in itching, redness, and the number and size of lesions. The results suggest that this combination of Ayurvedic herbs may be an effective treatment for managing the symptoms of *Dadru*.

KEYWORDS: *Neem Choorna, Haritaki Choorna, Kushtha, Dadru, Kandū.*

INTRODUCTION

Skin diseases are one of the most common reasons for outpatient visits and often contribute to long-term disability, stigmatization, and mental health issues. According the World Health Organization (WHO), approximately half of the 20 neglected tropical diseases (NTDs) present with skin manifestations, further highlighting the significant burden of dermatological disorders worldwide.^[1] They rank as the fourth most prevalent cause of human diseases, impacting nearly one-third of the global population and accounting for 1.79% of the overall disease burden.^[2]

In Ayurveda literature all skin diseases are included under *Kushtha*.

- 1) *Acharya Charaka* has described 18 types of *Kushtha*. Which is further classified into 7 *Maha kushtha* and 11 *Kshudra Kushtha*. *Dadru* is included in *Kshudra Kushtha*.

सकण्डुरागपिडकं दद्रुमण्डलमुद्गतम् ॥ (च.चि. 7/23)

- 2) *Acharya Shushruta* has described 18 types of *Kushtha* and *Dadru* is explained under *Maha Kushtha*.^[3]

अतसीपुष्पवर्णानि ताम्राणि वा विसर्पीणि पिडकावन्ति च दद्रुकुष्ठानि ॥ (सु.नि. 5/8)



Fig. No. I

Fig. No. II

Fig. No. III

Dadru, a type of skin disorder is characterized by *Kandu* (itching), *Raga* (erythema or redness), *Pidika* (eruption) and *Mandala* (elevated circular skin lesions).^[4] As a common dermatological condition, *Dadru* is known to be difficult to treat with conventional methods, leading to a need for alternative therapies. In Ayurveda, the efficacy of herbal formulations like *Neem* (*Azadirachta indica*) and *Haritaki* (*Terminalia chebula*) in managing skin disorders has been well-documented. *Neem* is known for its antimicrobial, anti-inflammatory, and

Kandu-reducing properties, while *Haritaki* is recognized for its detoxifying and skin-healing properties. This study aims to explore the combined effect of *Neem Choorna* and *Haritaki Choorna* on *Dadru*.

NEEM

| | |
|-----------------------|---|
| Botanical Name | : <i>Azadirachta indica</i> A. Juss. |
| Family | : Meliaceae |
| Synonyms | : <i>Neem, Neta, Yavanesta, Tiktaka, Pichumarda, Pichumanda, Paribhadra, Arista, Hinguniryasa</i> |



Fig. No. 1.



Fig. No. 2.



Fig. No. 3.

Vernacular names

| | |
|-----------|---------------------------|
| Hindi | : <i>Neem</i> |
| English | : Margosa tree |
| Telugu | : <i>Vepa, Yapachettu</i> |
| Tamil | : <i>Vempu, Veppam</i> |
| Malayalam | : <i>Veppu</i> |

The *Neem* tree is mostly grown in southern Asia and Africa, and its medicinal uses have been documented for a very long time. It should be noted that the aforementioned medical folklore links the leaves, bark, flowers, fruit, oil, and gum of the *Neem* tree to the treatment of certain illnesses like skin disease, diabetes, cancer, high blood pressure, and cardiac disease. The

potential effects of Neem extract can be attributed to various cellular and molecular mechanisms, including free radical scavenging, detoxification, DNA repair, cell cycle regulation, immune surveillance, autophagy suppression, inhibition of programmed cell death, as well as its anti-inflammatory, anti-angiogenic, and anti-metastatic properties. Additionally, Neem extract has the ability to modulate multiple signalling pathways.^[5] In Ayurveda, *Neem* is described as having a bitter (*tikta*) and astringent (*kashaya*) taste (*rasa*), light and dry qualities (*laghu and rooksha guna*), and a pungent metabolic effect (*katu vipaka*) post-digestion. Its cold potency (*sheeta veerya*) further underscores its versatility as a medicinal agent in both traditional and modern systems of medicine.

It was discovered that nimbin, nimbidin, and *Neem oil* had anti-inflammatory properties. Alcoholic leaf extracts showed promise in treating acute ringworm, scabies, and eczema (Dadru). Dried leaves extracted with 70% alcohol are useful in various fungal-infected skin illnesses after being dried and soaked in propylene glycol (4:6). Additionally, it showed improvement for both chronic and acute ringworm (Dadru). *Neem* is known by two names: *Pichumarda* and *Arista*. The *Neem-bark churna* possesses *Kusthaghna* attributes.^[6]

HARITAKI

| | |
|-----------------------|--|
| Botanical Name | : <i>Terminalia chebula</i> |
| Family | : Combretaceae |
| English Name | : Chebulic Myrobalan |
| Synonyms | : <i>Abhaya, Pathya, Putana, Haimavati, Avyatha, Kayastha, Chetki, Shiva, Vayastha, Rohini</i> |

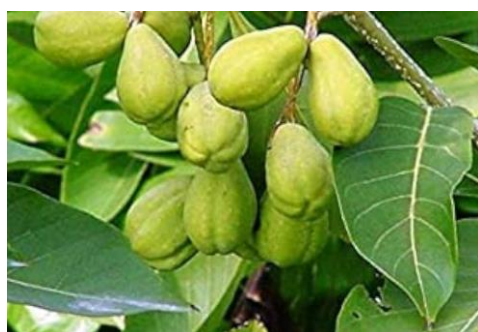


Fig. No. 4.



Fig. No. 5.



Fig. No. 6.

Vernacular names

| | |
|-----------|--------------------------|
| Hindi | : Haritaki, Harre, Harad |
| English | : Black Myrobalan |
| Telugu | : Karakkaya |
| Tamil | : Kadukkai |
| Malayalam | : Katukka |

Haritaki is a wonder medication that has been used in both traditional and modern forms in many international medical schools since ancient times. Because of Ayurveda's focus on *Haritaki*, the first chapter of *Chikitsa* is named after *Charaka Samhita*. *Sthana Abhaya-Amalakiya Adhyaya*, and *haritakyadi Varga* was viewed by many *Nighantus* as an important group, thus they started the *Nighantus* with it.^[7]

Haritaki is mainly described as being common in astringent (*Kashaya rasa*), with the exception of salt (*lavana rasa*). It has lightness (*laghu*) and dryness (*Rooksha*) qualities (*guna*), Undergoes sweet taste conversion after digestion (*Vipaka Madhura*) and its Hot potency (*Ushna Veerya*). Although *laghu* and *ruksha* are among its *gunas*, *deepana*, *medhya*, *chakshushya*, *bhruhana*, *vatanulomana*, and *rechana* are its principal activities. It has *shaman karma* on *tridoshas*. It is beneficial to *vaya*, *bala*, *endriya*, *medha*, *budhhi*, *hrudaya*, *koshtha*, and *twak*. *Kushtha*, *shopha*, *grahani*, *kamala*, *hrudvikara*, *prameha*, *arsha*, and *gulma* syndromes are the main conditions that *Haritaki* effectively treats. It works specifically on *strotasas* to remove obstacles and acts as *vibandha nashan*, and it is particularly recommended for *vyadhies*(diseases) that arise from *santarpana*.

Personal history**Skin examination****1. Inspection**

- Size shape – Ring-shaped lesions.

- Colour – Redish, blackish lesions or both
- Lesions – Flaky area.

2. Palpation

- Temperature – Heat sensation on the skin.
- Texture – rough or dryness

Laboratory investigation

Blood routine – CBC, ESR, LFT, HIV with in normal limit.

Samprapti Ghataka^[8]

- **Dosha (Bodily Humors):** Predominantly influenced by Kapha and Pitta doshas.
- **Dushya (Affected Elements):** Impacts the skin (*Twaka*), blood (*Rakta*), muscle tissue (*Mamsa*), and lymphatic fluid (*Lasika*).
- **Srotas (Body's Internal Transport Channels):** Involves the *Rasavaha* (plasma-carrying) and *Raktavaha* (blood-carrying) channels.
- **Srotodushhti Prakara (Type of Imbalance in Transport Channels):** Characterized by *Sanga* (obstruction).
- **Rogamarga (Disease Pathway):** Classified as *Bahya* (external).
- **Udbhavasthana (Origin Site):** Rooted in the *Amashaya* (stomach).
- **Vyaktasthana (Manifestation Site):** Appears on the *Twacha* (skin).
- **Rogaswabhava (Nature of Disease):** *Chirakari* (chronic or long-term in nature).
- **Sadhyasadhyata (Curability):** Considered *Sadhya* (curable).

MATERIALS AND METHODS

Study Design and Sample Size

This pilot study included five patients diagnosed with *Dadru*, selected from the OPD of GACH, Patna. The patients were chosen based on classical symptoms of *Dadru* and the inclusion criteria.

Inclusion Criteria

- Patients aged 20–60 years.
- Classical features of *Dadru*.
- Willingness to provide written informed consent.

Exclusion Criteria

- Patients with systemic disorders such as diabetes, renal stricture, or hepatic disorders.
- Pregnant and lactating women.
- Patients with diseases like AIDS, Cancer, TB, Cardiac problems etc.

CRITERIA FOR ASSESSMENT AND GRADING

| Sr. No. | Criteria | S0 | S1 | S2 | S3 |
|---------|--------------------------|--------------------|---|--|---|
| 1 | Kandu (Itching) | No Kandu | Ishat Kandu (Mild) Occasionally, doesn't disturb routine activity and sleep, Duration-4-6 min, Frequency-reoccurs 1-2 times in 12 hrs. | Bahu kandu (Moderate) Frequent, disturb routine activity but not sleep Duration-7- 9 min, Frequency-reoccurs 3-4 times in 12 hrs. | Ugra kandu (severe) Intense and constant, disturb sleep and routine activity, Duration10-12min., Frequency reoccurs 8-10 times in 12 hrs. |
| 2 | Raga (Colour) | Normal Skin Colour | Faint and near to normal | Blanching and red colour | Deep Red colour |
| 3 | Number of mandal (patch) | No mandal | 1-4 Mandal | 5-10 Mandal | >10 Mandal |
| 4 | Size of mandal | Zero cm | <5 cm | 5-10 cm | >10 cm |

Treatment Protocol

अभया निम्बसंयुक्ता भक्षितानलवृद्धिकृत ।

दद्रुविस्फोटकश्चैव नाशयत्याशु देहिनाम ॥ (वंगसेन संहिता 38/15)

| Trial Drug | <i>Neem Choorna and Haritaki Choorna</i> |
|-------------------------|--|
| Doge | 6gm |
| Doge Form | <i>Choorna</i> |
| Route Of Administration | Oral |
| Duration | 30 Days |
| Time Of Administration | BD (After meal) |
| Patients | 5 |

Each patient was given a combination of *Neem Choorna* and *Haritaki Choorna*, with a dosage of 6 gm twice a day for 30 days. Follow-up assessments were done every 10 days. The primary outcome measures included a reduction in itching (*Kandu*), redness (*Raag*), the number of *Mandalas*, and the size of the *Mandalas*.

Assessment Criteria

- *Kandu*: Graded from no itching (G1) to severe itching (G4)
- *Raag*: Graded from normal skin colour (G1) to deep red (G4)
- Number of *Mandalas*: Graded from zero (G1) to more than 10 (G4)
- Size of *Mandalas*: Graded from zero cm (G1) to more than 10 cm (G4)

RESULTS

All five patients showed significant improvement in the primary outcome measures. There was an 80% reduction in itching (*Kandu*), redness (*Raag*), the number of *Mandalas*, and the size of *Mandalas*. The results are summarized as follows

- ***Kandu***: Significant reduction was noted ($P < 0.01$) with an 80% improvement.
- ***Raag***: Improvement in skin colour with a reduction in redness ($P < 0.04$).
- **Number of *Mandalas***: Decreased from an average of 4–6 *Mandalas* to 1–3 *Mandalas* ($P < 0.015$).

The **P-value** of **<0.015** suggests that the reduction is statistically significant, meaning the observed change is likely not due to chance but rather due to the effectiveness of the treatment or intervention being applied. This indicates a positive outcome in terms of the decrease in the severity of the condition.

- **Size of *Mandalas***: The size of the *mandala* (circular lesions) can vary among patients based on their individual response to treatment. For some patients, the size of the *mandala* decreases over time with proper treatment. In a few cases, the *mandala* may completely heal if the patient was already showing signs of improvement, with the lesions gradually disappearing.

For other patients who had smaller or less severe *mandala* from the beginning, the treatment may lead to a complete recovery, where the *mandala* completely resolves, indicating a successful healing process.

DISCUSSION

Dadru is a common dermatological disorder with significant social and psychological impact. Ayurvedic formulations, particularly those involving *Neem* and *Haritaki*, have shown promise in treating skin diseases. *Neem*, with its antimicrobial and anti-inflammatory properties, and *Haritaki*, known for its detoxifying and rejuvenating effects, are believed to work synergistically in alleviating the symptoms of *Dadru*. Previous studies have highlighted

the efficacy of these herbs individually in treating skin diseases, but this pilot study suggests that their combination may provide enhanced benefits in managing *Dadru*.

The significant reduction in itching (*Kandu*), redness (*Raag*), and lesion (*Mandala*) size and number of lesions (*Mandala*), as observed in this study, aligns with the findings of other studies that have evaluated the role of Ayurvedic formulations in treating dermatological conditions. *Haritaki*'s ability to balance *Pitta Dosha* and support skin regeneration may play a vital role in managing conditions like *Dadru*. The combination of these herbs could be a promising alternative to conventional treatments, which often fail to offer long-term relief.

CONCLUSION

The combination of *Neem Choorna* and *Haritaki Choorna* has shown significant potential in managing *Dadru*, an Ayurvedic skin disorder. Clinical observations reveal improvements in symptoms such as itching, redness, and the overall characteristics of the lesions, indicating the effectiveness of these herbs. *Neem* is known for its anti-inflammatory, antibacterial, and antifungal properties, while *Haritaki* supports detoxification and healing. These combined benefits help address the root causes of *Dadru*. Despite the promising results, further large-scale studies are needed to confirm the efficacy and safety of this herbal treatment in managing skin conditions like *Dadru*.

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