

## CONCEPTUAL STUDY ON GANDIRIKADYA TAILA

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Article Received on 18/08/2022

Article Revised on 08/09/2022

Article Accepted on 28/09/2022

**ABSTRACT**

kushtha is the general term in Ayurved used to denote skin disease. It is been noticed that several peoples are infected with various skin diseases on daily basis. In spite of having many medicines in the market it is been observed after treatment that are not been cured permanently. Gandirikadya taila mentioned in Chakradatta and Bhaishjya ratnawali was reviewed. The properties and action of ingredients present in this taila was reviewed from Ayurvedic samhitas, Chikitsa granthas and different search engines to understand the properties and action.. This taila are prepared by mixing of 8 different herbs along with gomutra and katu taila. Majority of drugs are tikta and katu rasatmaka, ushna virya and kaphashamaka, having kushthaghna properties. Thus, Topical application of Gandirikadya taila can turn out effective in treatment of mandala kushtha, dadru, vrana, kitibha.

**KEYWORDS:** Dadru, Kushtha, Sneha kalpana, Drug review, Gandirikadya taila.**INTRODUCTION**

Ayurveda is the world's oldest system of medicine. Ayurveda is a holistic medical philosophy that promotes, prevents, and heals. Twak Sharir is an essential concept in Ayurveda. Twak Sharira is defined in Ayurvedic literature as having different types of Kushtha depending on the layers of skin.

Sneha and kalpana these two words frame the wording Sneha kalpana. Method of preparation of Sneha kalpana is also elaborated by Acharya Govind Das Sen.

“Kalpanam upyogartham Prakalpanam samsakaranamiti” Kalpana is the process through which a raw material converted into medicinal form according to the necessity of the physicians. Ayurveda has given the greatest emphasis to comprehensive knowledge of drugs including identification, procurement, processing, and preservation and dispensing of prepared drug under a broad heading known as Bhaishajya Kalpana. The basic processing techniques of Bhaishajya Kalpana are elaborately explained in Samhita. They were called the Panchavidha Kashaya Kalpana. Since they have less shelf life so to prepare the formulation which can be preserved for long time and can be administered conveniently Churna, Vati, Sneha Kalpana etc. were introduced. “Sneha Kalpana” is one among the several highly established Kalpana of Ayurvedic system of

medicine. Gandirikadya taila contains herbal medicines which are in majority tikta and katu rasatmaka, kaphashamaka and ushna virya The article explains the role of Gandirikadya taila is selected as tropical application in Mandal kushta, Dadru, Dushta vrana, Kitibha.

**AIM & OBJECTIVES**

To study about Gandirikadya taila from various Ayurvedic granthas, research journals.

**METHODOLOGY**

Various Ayurvedic texts, relevant modern medical science book, research articles and websites have also reviewed for this study.

**Advantages of Sneha kalpana**

- To extract the fat soluble active principles from the raw material.
- To enhance the absorption of drugs, when used topically in fat medias.
- To obtain extra benefits of specific Taila /ghee used .(Nutritive)
- To preserve the drug for longer time.
- Increases the bioavailability of drugs.

**Ingredients for Gandirikadya taila**

Sr. No.	Drug	Latin name	Part used
1.	Gandirika(Snuhi)	Euphorbia neripholia Linn.	stem
2.	Chitraka	Plumbago zeylanica Linn.	Root
3.	Arka	Calotropis Procera (Ait)R.Br	Patra
4.	Bhringaraj	Eclipta alba Hassk.	Panchang
5.	Kushtha	Saussurea lappa C.B.Clarke	Root
6.	Aragvadha	Cassia fistula Linn.	Tvaka
7.	Saindhav lavan	Rock salt	-
8.	Gomutra	Cow's urine	-

**Preparation of Gandirikadya taila<sup>[1,25]</sup>**

गण्डिरिका चित्रकमार्कवार्ककुष्ठद्रुमत्वग्लवणैः समूत्रैः।

तैलं पचेन्मण्डलकुष्ठ दद्रुदुष्टवणारुः किटिभापहारि॥

चक्रदत्त ५०/१६०

भैषज्य रत्नावली५४/२८८

This reference reviewed from Chakradatta and Bhaishjya ratnavali granthas.

1 part of katu taila, 1/4<sup>th</sup> part kalka of gandirika (snuhi), chitraka, markava (bhringraj), arka, kushtha, drum tvaka (aragvadha tvaka), saindhava lavana, each in equal part) and 4 parts of gomutra will be added then snehapaka will

be done of Gandirikadya taila can be used in Treatment of mandala kushtha, dadru, vrana, kitibha.

**Sneha Siddhi lakshanas:<sup>[2]</sup>**

1. Sneha kalka attains 'Perfect wick shape' when rolled between thumb and index finger.
2. If a part of Sneha kalka is put into the fire, no sound is produced.
3. Foam appears in 'taila paka' during completion of preparation.
4. Desired colour, odour and taste of the ingredients become appreciable as the preparation is properly done.

**Gandirikadya taila ingredients properties**

Ingredients	Rasa	Virya	Vipaka	Guna	Doshghnata	Therapeutic uses
Snuhi	Katu, Tikta	Ushna	Katu	Guru	Kapha vata shamaka	Pandu roga, Udara, Gulma, Kustha, Sotha, Anaha
Chitraka	Katu	Ushna	Katu	Laghu, Ruksha, Tikshana.	Kapha vata shamaka	
Bhringraj	Katu, Tikta	Ushna	Katu	Ruksha, Laghu	Reduces Kapha dosha and pacifies Vata dosha	chronic skin diseases including pruritis (intense itching), chronic wounds, skin ulcers, atopic dermatitis (eczema) etc
Arka	Katu	Ushna	Katu	Laghu, Ruksha, Tikshana	Kapha-vatashamaka	Vrana, Kushtha, Raktashopha
Kushtha	Tikta, Katu, Madhur	Ushna	Katu	Laghu	Kaphavatshamak, Varnya	Vatarakta, Visha, Visarpa, Kushtha
Aragvadha	Madhur	Sheet	Madhur	Guru, Mrudu, Snigdha	Vatakaphashamak	Kushta
Saindhav lavan	Lavan	Sheeta	-	Laghu, Snigdha, Tikshna	Tridoshashamaka	Vrana
Gomutra	Katu, Tikta, Kashay, Kshariya	Ushna	-	Laghu, Ruksha, Tikshna	Kaphavatahar	Kandu, Shotha, Krimi
Katu taila	Katu, Tikta	Ushna	Katu	Snigdha, Laghu	Kaphavatashamak	Kandu, Kushtha, Dushta vrana

**Pharmacological Action****1. Gandirika [snuhi]**

Informations pertaining to the drug Snuhi can be traced in various Nighantus, under different chapters. Kaiyadeva Nighantu, Bhavaprakasha Nighantu and Shaligrama Nighantu has indicated Snuhi in maximum

diseases. Snuhi has been used as an ingredient in 253 formulations.<sup>[3]</sup>

Ayurvedic pharmacodynamics of Snuhi unveils that it possesses ushna, tikshna property, as well as kaphavata shamaka property. This work also reveals that Snuhi has been attributed with 12 chikitsa upayogi (useful in

treatment) properties like Deepana (Stimulating digestive fire), Virechana (purgative), Amahara (alleviating ama) etc. Snuhi has been indicated in 25 clinical conditions like Udara (disease of abdomen), kushtha (disease of skin), Gulma (abdominal lump), Adhmana (flatulence with gurgling sound) etc. Hence, this review may steer as a direction to further scientific research to explore all the pharmacological properties of Snuhi delineated in various Nighantus (lexicons) and may be referred as a document-based research for further researches.

## 2. Chitrak

Antibacterial Action plumbagin induces ros-mediated apoptosis in human promyelocytic leukaemia cells in vivo-plumbagin, a naphthoquinone from the roots of *P. zeylanica* is known to possess anticancer and antibacterial Action. The results showed that i.p. injection of plumbagin (2 mg/kg body weight) daily for 3 weeks resulted in a 64.49% reduction of tumor volume compared with the control. These results indicate that plumbagin has potential as a novel therapeutic agent for myeloid leukemia.<sup>[6]</sup> Anti-bacterial Action of *P. zeylanica* roots on some pneumonia causing pathogens.

## 3. Bhringraj

Bhringraj is also called False Daisy in English. The accepted botanical name of Bhringraj is *Eclipta Prostrata*. It is also known with the name of *Eclipta alba* which is botanical synonym of *Eclipta Prostrata*.

Main Components Bhringraj is claimed for containing Ecliptine and Nicotine. It is more beneficial in chronic skin diseases including pruritis (intense itching), chronic wounds, skin ulcers, atopic dermatitis (eczema) etc. It increases the production of bile from the liver, improves liver functions, reduces constipation and corrects digestion and enhance metabolism. the leaf juice of *Eclipta alba* is used in skin diseases.

## 4. Arka

Arka is sthavar vanaspatik visha. In high dose it is act as poison but in proper dose it acts as medicine. It should be used after shodhan karma (detoxification) otherwise it is(will be) harmful to the human body.. *Calotropis procera* a widely growing plant has antimicrobial property against various bacteria and has been reported to possess number of medicinal properties and other purposes. It is used in traditional medicine as a purgative, antihelminthic, anticoagulant, anticancer, anti-inflammatory, antipyretic, analgesic and antimicrobial action. Its active principles are uscharin, calotoxin, calactin, calotropin, calotropagenin and uscharin.

In Ayurvedic text it is described as krimighna (antihelminthic), kandughna (reduces itching) vranashodhan (wound healing), jantughna (antimicrobial), kushthaghna (treat leprosy), shothhar (reduces edema), vednasthapan (analgesic). In Charak Samhita, out of fifty mahakashaya in sutra sthana Arka is described in Bhedaniya mahakashay. In chikitsas it is use

in kushtha chikitsa (leprosy). In sushrut samhita it is one of the ingredients of Mahaneel ghrut use in kushtha chikitsa (leprosy), also use in vajrak tail and mahavajrak tail.<sup>[7]</sup> In Ashtang hrudaya, Kushtachikitsa adhyay it is used in vicharchikahar lepa (eczema), it is one of ingredient of vajrak tail and mahavajrak tail. In different Nighantu different properties of Arka have been described and according to these properties it is used in various diseases such as kushtha.

Aqueous and ethanol extracts of leaf and latex of *Calotropis procera* was tested for their antifungal activity against seed borne dominant fungi *Culvularia lunata*, *Alternaria Alternata*, *Rhizoctonia solani*, *Fusarium solani*, *Penicillium chrysogenum*, *Aspergillus niger*, *Aflavus*, *A-terrus*, *A-fumigatus* and *Rhizopus sp.* were determined using agar well diffusion method. The results revealed that ethanolic extracts of both leaf and latex showed inhibition of growth in the test fungi with the widest zone of inhibition. Latex of *Calotropis procera* has been found quite effective in controlling seed – borne mycoflora of wheat.<sup>[8]</sup>

## 5. Kustha

In Charaka Samhita, kushta is mentioned under Suthrasthana, Vimanasthana, Chikitsa and Siddhithana for treatment of Vatakapha predominant diseases and fat metabolism and described as the best drug among the drugs for Abhanga and Upanaha.<sup>[9]</sup> Kustha is Tikta, Katu and Madhura in rasa and Laghu in Guna and Usna in Veerya. It is indicated in Shukralakarma, Vatarakta, Visha, Visarpa, Kushtha, Kasa and Kapha and Vata Vyadhi.

The chemicals extracted from the roots of the plant show several pharmacological activities like Anti-inflammatory and antimicrobial. The roots of this plant possess antifungal properties especially against pathogenic fungi.

## 6. Aragwadha

Rogaghna-Kushthghnata, kandughna, Raktshodhak, sransmana, mriduvirechniya, Anuloman, Koshtshuddhikar, Ruchivardhak, hrudya, shothhar, kafnissarak, mutrajanan, dahprashamana, ampachak, pattshamak, samshodhak, Jwaragna, shulprashaman.<sup>[10]</sup>

Madhura rasa, sheetavirya, Madhura vipaka helps to reduce vitiated vata. It helps to give strength to healing tissue of wound (Vranaropana). Shothahara property helps to reduce swelling over infected wound.<sup>[11]</sup> Among Aragwadha Phalmajja, drugs itself very effective in Vrana to break the pathogenesis by having shodhan property. By this property it removes kleda from the infected wound and promote healing process. By Virtue of these properties Aragwadhapal majja Kwath acts as shodhan and ropan simultaneously.

**Antibacterial Activity:** The leaves stem bark and fruit pulp was found to have antibacterial activity. the fruit pulp being the most potent in this respect.

**Anti-Fungal Activity:** The acetone extracts of the root bark and stem bark had anti-fungal activity against *T. rubrum* and *T. megnini*. The root bark had the maximum activity 100mg of it being more potent than 16.1gm of griseofulvin in vitro. The activity might be due to the presence of flavonoids. Along with the other activities such as antitumor, antioxidant, wound healing activity, antibacterial, the healing potential of *C. fistula* provides a scientific rationale for the traditional use of this plant in the management of infected dermal wound and can be further investigated as a substitute to treat infected wounds without using synthetic antibiotics.

### 7. Lavana

Rock salt is used externally and internally and is easily absorbed as its composition of minerals is similar to what we contain in our bodies. It helps in exfoliating dead skin cells, cleansing skin pores and protecting the natural skin layer to produce healthy and energized skin type. It also helps in strengthening skin tissue to rejuvenate the skin to make it look younger and firm.<sup>[12]</sup>

The importance of Lavana is mainly due to its action on Agni (Agni Deepana) and Vayu (Vatanulomaka). As Agni and Vayu are supreme operational factors at the stage of digestion, their derangement can lead to a variety of gastro-intestinal disorders and cause ill health. Hence, the role of Lavana comes into play. Such is the implausible importance that a whole lot of Kalpana (formulation), i.e. Lavana Kalpana, is dedicated to this particular artifact.

With antioxidant property it helps in disposing of toxic minerals and refined salt stores by invigorating circulation system and mineral equalization. This is due to the presence of other trace elements although the mode of action is still not properly known.<sup>[13,14]</sup>

### 8. Gomutra

'The cow' is a mobile medical dispensary and cow urine is a panacea of all diseases<sup>[15]</sup>. They are used for unction, as ointment, Asthapan (enema), purgation, fomentation, for treatment of constipation, alleviation of diseases in general Udara (abdominal distention), piles, Gulma, Kustha (skin disorders), Kilasa (skin disorders), poultice and effusion. They are prescribed as appetizers, antitoxic, bactericidal; they are known as best remedies for those affected by Panduroga (anaemia), when taken orally it pacifies all the three Doshas.<sup>[16]</sup>

While describing specific qualities of cow urine Acharya Charak has said that cow urine is slightly sweet, it also alleviates Doshas, it is bactericidal, it cures Kustha (skin disorders) and Kandu (pruritic). If taken orally, it is equally effective for Udarog (abdominal distention).<sup>[17]</sup> A lots of research has been conducted in Cow Urine

Treatment and Research Center, Indore over the past few years and it has been reported that Gomutra is capable of curing blood pressure, blockage in arteries, arthritis, diabetes, heart attack, cancer, thyroid, asthma, psoriasis, eczema, prostrate, fits, AIDS, piles, migraine, ulcer, acidity, constipation, gynecological problems, ear and nose problems and several other diseases.<sup>[18]</sup>

### Properties of Cow Urine as per Ayurveda

Gomutra is used both internally and externally in the treatment of Kustha (skin disorders). Charak has advised internal use of Gomutra with Daruharidra (*Berberis aristata* DC) Kalka.<sup>[19]</sup> Even in advanced stage of Kustha Charak has advised use of Gomutra as Pan (for drinking), Snan (for bathing) and Pradeh (local application of paste).<sup>[20]</sup>

This much wide use of Gomutra in Kustha can be attributed to its wide antimicrobial and antifungal properties. A study was conducted to study the effect of cow urine on microbes. It was found that gram negative, gram positive bacteria & Fungi were significantly inhibited by concentrated cow's urine. Some of the constituents of urine which are related to microbiocidal properties are Halogenated phenol -Antifungal. 2 Phenyl Phenol - Antimicrobial, Antiviral Carboic acid, Manganese - Antibacterial, Pesticide. Aurum Oxide – Antimicrobial.

### Antitoxic<sup>[21]</sup>

Specific action of gomutra

- **Antimicrobial Activity:** Many viruses cause cancer. These microbes are killed by cow urine.
- **Bio-enhancing Property:** Bio-enhancers are substances which promote and augment the bioactivity or bioavailability or uptake of drugs. This will reduce the dosage & duration of antibiotic therapy and anticancer drugs like Taxol (anticancer drug).
- **Immuno-modulating activity:** Cow Urine has vital potential to enhance the activity of macrophages, lymphocytes (both T & B cells) humoral cellular immunity, cytokines (Interlukine1 & 2).<sup>[21]</sup>

### 9. Katu taila

Karma: Hrudyta, Rakta Pitta Vardahana, Agnivardhana. Kandughana, Kushtaghna Katu taila (sarshap) is a well known anti allergic drug. It prevents the release of a number of inflammatory mediators & inhibit the action of the released mediators on their target cells. It also has an anti-oxidant as well as analgesic property. Katu Taila has marked anti-inflammatory effect on the nasal mucosa by inhibiting the release of inflammatory mediators from the mast cells & basophils & by blocking the inflammatory effect of leucocytes in the nose. Mustard oil based microemulsion formulation demonstrated effective antibacterial activity against *E. coli*. It can be seen that on basis of experimental study & clinical study observation that therapeutic efficacy of katutaila may be due to suppression in the anti-body formation, decreased

inflammation – linked analgesic effect & lowering of the eosinophil count & ESR.<sup>[23,24]</sup>

## DISCUSSION

Sneha kalpana provides an idea that sneha kalpas are superior to other dosage forms due to its wider advantages like increased absorption, bioavailability and extraction of fat soluble as well as water soluble active principle at a time in a single formulation. Sneha kalpas are the dosage form which can be administered conveniently both internally as well as externally as per the requirement of patient.

In this article, we can study the concept that applying Gandirikadya taila pacifies the Doshas and leads to the breaking of Samprapti, which helps reduce symptoms like Kandu, Pidika in dadru, mandal kushtha, shataru, dushta vrana. Rasa and Raktashodhak, Varnya, Lekhan, Shothahara properties of Gandirikadya taila pacify Dushyas and which help in reducing the symptoms like Raga and Mandala in dadru. The content of taila possesses Snigdha, Tikshna, Ruksha, Sara, Ushna, Tridoshar properties. All the ingredients of Gandirikadya taila Snuhi, Bhringraj, chitraka, Arka, Lavan, kushtha, Aragvadha, katu taila, gomutra have pharmacologically antifungal, antimicrobial, Antiseptic, Antipruritic, Anti-inflammatory properties, hence can effectively reduce the infection and prevent its recurrence by improving the immunity of skin by its antioxidant property. Upon topical application, the active principle of oil releases deeper tissue through siramukh and swedavahi shrotas with its Sara and Tikshna property. Due to Ushna, Tikshna, Sara property removes the obstruction in Swedavahi Strotas and allows the local toxin to flow through Sweda, thus clearing out the microchannels. Ushna Virya of gandirikadya taila and vehicle gomutra causes pacification of Kapha, which causes Samprapti vighatan, thus alleviating the symptoms. Topical preparation applied might have acted by Ruksh, Tikshna property for pacifying Kapha Dosh locally and maintaining the other Dosh's equilibrium. By this, Dhatu Shaithilya might have reduced and provides nourishment to twacha.

## CONCLUSION

Gandirikadya Taila consists the key ingredients like Gandirika, Arka, Chitrak, Aragvadha, Bhringraj, Kushtha holds tikta and katu rasa, ushna virya and kaphashamaka, kushthaghna properties which are well explained in the Ayurvedic classics for management of skin disorders. Thus this formulation can turn out effective in treatment of mandala kushtha, dadru, vrana, kitibha.

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