WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 14, Issue 7, 133-140. Review Article ISSN 2277–7105

A REVIEW OF CHANDANADI LEPA: AN AYURVEDA FORMULATION FOR VISHAJUSHTA MUKHALEPA

Mitali Verma*, Urmila Shukla and Swati Nagpal

[1]M.D Scholar, Department of Agad Tantra Evum Vidhi Vaidyaka, Pt. Khushilal sharma Government Ayurveda College and Hospital, Bhopal (M.P).

[2]Professor, Ph.D and HOD, Department of Agad Tantra Evum Vidhi Vaidyaka, Pt. Khushilal Sharma Government Ayurveda College and Hospital, Bhopal (M.P).

[3]Reader, Department of Kayachikitsa Pt. Khushilal Sharma Government Ayurveda College and Hospital, Bhopal (M.P).

Article Received on
05 February 2025,

Revised on 25 Feb. 2025,
Accepted on 17 March 2025

DOI: 10.20959/wjpr20257-35960

***Corresponding Author**
Dr. Mitali Verma
M.D Scholar, Department of Agad Tantra Evum Vidhi Vaidyaka, Pt. Khushilal sharma Government Ayurveda College and Hospital, Bhopal (M.P).

ABSTRACT

Background: Several poisoning techniques have been described by *Acharya Sushruta*, *Vishajushta Mukhalepa* (poisoned cosmetic) is one of them. If this is taken by this route, it may result with symptoms that resemble *Padminikantaka*. *Padminikantaka* falls under the *Kshudra Roga* and chiefly affects the facial skin. Clinically it present circular pimples, needle-like appearance with pale circular discolouration on face having symptoms of *Kapha-Vata* vitiation. **Objective:** The objective is to explore the pharmacological properties of components of *Chandanadi Lepa* evaluate their collective impact on *Vishajushta Mukhalepa*. **Method:** Various databases, including PubMed, Google Scholar, and Ayurvedic journals, were searched using relevant keywords. Ayurvedic Samhita and Nighantu with commentaries are used for relevant content. Data were synthesized to elucidate the potential mechanisms of action and therapeutic efficacy of *Chandanadi Lepa* in managing *Vishajushta Mukhalepa*. **Conclusion:** *Chandanadi Lepa* useful in treating *Vishajushta Mukhalepa Janya Padminikantaka*, *Mukhashyavata*, *kandu* etc.

KEYWORDS: *Vishajushta Mukhalepa, Padminikantaka, Chandanadi Lepa*.

INTRODUCTION

Several poisoning techniques used by rivals have been described by *Acharya Sushruta*, including the use of *Anna* (Food), *Pana* (Drinks), *Dantakastha* (Toothbrush), *Abhyanga* (Massage) *Kashaya* (Decoction), *Nasya* (Nasal drops), *Dhooma* (Fumigation), *Abharana* (Ornaments), *Alepa* (Application), *Utsadana* (Massage), *Parisheka* (Bath), *Anjana* (Application on the eye lid), *Vastra* (Clothes), *Shayya* (Bed), *Paduka* (Footwear).[1] Among them, one is Anulepana (application), if *Visha* is administered through *Anulepana* method may produce symptoms similar to *Padminikantaka* (throrny eruption like in the lotus flower).[2] *Padminikantaka* falls under the *Kshudra Roga* and chiefly affects the facial skin. Clinically it present circular pimples, needle-like appearance with pale circular discolouration on face having symptoms of *Kapha-Vata* vitiation like thick, whitish or creamish pus/*puya*, increased *Vedana* and *Kandu.*[3] And other symptoms are *Sfota (eruptions), Ruja (pain), Srava (exudation), Twaka paka (ulcer of the skin), Sweda (sweating), and Darna (tearing of muscle). In this article emphasized role of ayurveda drug Chandanadi Lepa in the management of Vishajushta Mukhalepa.*

Drug review

***Chandanadi lepa*[4]**

Chandanadi lepa have *Tikta, Madhura, Katu, Kashaya* in *Rasa* governing *Sheeta Virya* and *Tridosha Shamak Doshaghnata*. The formulation consisted of *Chandan (Rakta), Vidarikanda, Yashtimadhu, Bharangi, Bandhujeeva, Punarnava.* And possess the therapeutic property of *Varnya, Vranahara, Dahahar, Shothaghna, and Vishaghna.*

1. *Rakta chandan* (Pterocarpus santalinus L.)

Ayurvedic Pharmacological Properties and Action

The drug is *Tikta, Madhura* in *Rasa, Guru, Ruksha* in *Guna, Sheeta* in *Virya* and *Katu Vipaka*. Hence pacifying *Kaphavata dosha* and *Pittahara.*

Phytochemical activity – Carbohydrate, steroids, anthocyanins, saponins, tannins, phenols, triterpenoids, flavonoids, glycoside, and importantly the santalin A and B pigments. The phenolic content is probably responsible for the powerful antioxidant activity observed.

Pharmacological activity

Anti-inflammatory activity- P. santalinus gel formulation effective in chronic inflammation. This effect may be due to savinin, a which inhibited inflammatory markers such as tumor necrosis factor-α(TNF-α).[5]

Action against atopic dermatitis- Ethanol extract decreased the degranulation of IgE sensitized rat basophilic leukemia-2H3 mast cells and release of allergic mediators such as histamine in a dose dependent manner. 2,4-dinitrochlorobenzene-induced atopic dermatitis model in NC-Nga mice proved P. santalinus extract to reduce inflammatory cell infiltration, skin hypertrophy and epidermal thickening.[6]

Protection against UV-B radiation - Ethanol extract of P. santalinus exhibited protective and anti-photoaging effect against UV-B irradiated human dermal fibroblasts by regulating the levels of matrix metalloproteinases, interleukin-6 and activated AP-1 transcription factors which aided tissue regeneration.[7]

Wound healing activity - P. Santalinus gel formulation was studied on male Charles Foster rats. It was observed that less period of epithelization, enhanced hydroxyproline content and collagen content in the gel treated group. P. Santalinus was found to stimulate the generation of proteins and factors which regenerated the extracellular matrix and potentiated wound healing.[8]

2. *Yashtimadhu (*Glycyrrhiza glabra)

Ayurvedic pharmacological properties and action

The drug is *Madhur* in *Rasa*, *Guru*, *Snigdha* in Guna *Sheeta* in *Virya* and *Madhura Vipaka*. Hence *Vata pitta Shamaka.*

Phytochemical activity[9] – Root contain glycyrrhizine, licoagrone, isoflavone, liquoric acid, blabridin, deoxoglabrolide, liconicone.

Pharmacological activity[10]

Antioxidant activity - Isoflavones, such as glabridin, hispaglabridin A, are the responsible compounds. the topical application of liquorice extract formulations may be of value in innovative dermal and cosmetic products as it counteracts oxidative stress damage, maintaining the skin homeostasis due to its high antioxidant content.

Anti-inflammatory activity - In male rats after 4 weeks of food intake, significant decrease in the total cholesterol and triglyceride levels as well as in the levels of serum liver enzymes.[9]
Dermal effect - liquorice mainly for skin eruptions, dermatitis, eczema, pruritus, and cysts. *G. glabra* flavonoids shows depigmenting capabilities and Tyrosinase is essential for skin pigmentation due to its role in melanin biosynthesis.

3. *Bharangi (*Clerodendrum serratum)

The drug is *Katu* in *Rasa, Laghu, ruksha* in *Guna, Ushna* in *Virya* and *Katu Vipaka.* Hence pacifying *Kaphavata dosha.*

Phytochemical Acitivity - Root contains Saponins, D - mannitol, oleanolic acid, β - Sitosterol, Clerodone, Catchin, α-spinosterol, Cruteuarein. The minerals reported in the plant: Na, Mg, Al, K, Ca, Fe, Co, Ni.

Pharmacological activity

Anti-inflammatory activity - Methanol extracts of the roots possess significant while the aerial parts exhibited moderate anti –inflammatory activity.

Antihistaminic activity - Alcoholic extract and the saponin for bronchial asthma, caused release of histamine from lung tissue.[11]

Wound healing activity - wound healing potency of ethanolic extracts of roots and leaves was evaluated on Albino rats.

4. *Vidari kanda* (Pueraria tuberosa DC)

The drug is *Madhura* in *Rasa, Guru, Snigdha* in *Guna, Sheeta* in *Virya* and *Madhura Vipaka*. Hence pacifying *Vata Pitta Shamaka*.

Phytochemical Activity[12] - The crude tuber extracts contain anthocyanidins, anthraquinone, glycosides, hexose sugars, saponins, steroids, terpenoids, and volatile oils. Ethanolic extract was found to contain puerarin, daidzein, biochanin A, B.

Pharmacological activity

Anti inflammatory activity- The methanolic tuber extract prevented the carrageenan-induced inflammation by lowering the glutathione content, catalase and enhancing lipid peroxidase and C-reactive proteins in rats in a sequential manner.

Anti stress Activity - Hypothalamic pituitary-adrenal (HPA) axis is dysregulated which changes the levels of corticosteroids in plasma and monoamine in the brain.[13]

5. *Punarnawa* (Boerhavia diffusa)

The drug is *Madhura, Tikta, Kashaya* in *Rasa, Ruksha* in *Guna, Ushna* in *Virya* and *Madhura Vipaka*. Hence pacifying *Vata Shleshma Shamaka*.

Phytochemical Constituents - Alkaloids, flavonoids, steroids, reducing sugars, saponins, tannins, in varying amount in the *B. diffusa* extracts.

Pharmacolgical activity

Antibacterial Activity - Extract of leaves had significant in vitro antimicrobial activity, only Staphylococcus aureus was susceptible for Boerhaavia diffusa.[14]

Anti-viral activity - Root contains basal proteins which show high virus inhibitory activity against plant viruses. Root extract induce strong systemic resistance in susceptible host plant.

6. *Bandhujeeva* (Pentapetes phoenica Linn.)

Bandhujeeva has a *Vata pitta shamaka* property.

Phytochemical Constituent - screening of leaf extract yielded tannins, flavonoids, sterols, saponins, carbohydrates, and traces of alkaloids.

Therapuetic Action - *Vishaghna, Snehan, Urdhava Bhaga Doshhara*.

Application of *chandanadi lepa*

It is used externally for topical purposes, should be used mixed with *Ghee*. The paste can be employed in day time. Applying *Lepa* in the opposite direction of the hairs facilitates the entry of the active ingredient in the *Ghruta* base into *Romakupa*, where it is absorbed by *Swedavahi Srotas.*

DISCUSSION

If *Vishajushta Mukhalepa* is administered through *Anulepana* method may produce symptoms similar to *Padminikantaka*. Clinically it present circular pimples, needle-like appearance with pale circular discolouration on face having symptoms of *Kapha-Vata* vitiation.

Chandanadi Lepa composes of *Chandana (Rakta), Vidarikanda, Yashtimadhu, Bharangi, Bandhujeeva, Punarnava.*

Rasa- *Chandan* have *Tikta, Madhura Rasa*, *Vidarikanda – Yashtimadhu* have *Madhura Rasa*, *Bharangi* have *Katu rasa* and *Punarnava* have *Madhura, Tikta, Kashaya Rasa*.

Madhura Rasa alleviate *Pitta, Vata Dosha*, and effects of poison, relieves the burning senstation, promote healthy skin and complexion; as face becomes blackish (*Mukhashyavat*a) after applying *Vishajushta Mukhalepa*. *Tikta rasa* is *Vishaghna* (antitoxic), *Krimighna, Kandughna, Lekhana*, helps in the depletion of *Kleda, Puya, Sweda, Shleshma* hence reduce whitish or creamish pus/*puya. Katu Rasa* having properties to cure itching (*Kandughna*),

allay excessive growth of niddle like eruption and break obstruction, clarify the passage and alleviate *Kapha.*

Guna- *Chandan (Rakta), Bharangi, Punarnava are Ruksha* in property it works as a *Shoshak, Kaphahara*. *Chandan (Rakta), Vidarikanda, Yashtimadhu* are *Guru* able to control *Vata Dosha.*

Bharangi, Bandhujeeva are *Laghu is Kaphashamaka,* clears the *Swedawaha Shroto Dushti*.
Virya- *Chandan (Rakta), Vidarikanda, Yashtimadhu* having *Shita Virya* controls sweating and helpful in the management of *Pitta* states. *Bharangi, Punarnava* are *Ushna virya, thus it Vata-Kapha Shamana.*

Vipaka- *Chandan (Rakta), Bharangi* are having *Katu Vipaka.* it has property of *laghu Guna* works as a *Kapha Shamak*. *Vidarikanda, Yashtimadhu, Punarnava* having *Madhura Vipaka*. *Madhura Vipaka* assists with *Vata Shamana* because of its *Guru and Snighdha Guna*.

Karma- *Chandan (Rakta), Bandhujeeva, Punarnava* showing *Vishaghna* property, *Vidarkanda, Yashtimadhu* showing *Varnya* property relives in *Vishajushta Mukhalepa Janya Mukhashyavata*. *Chandan* and *Yashtimadhu* are *dahahar*. *Bharangi is Vranahara*

Doshaghanta- *Vidarikanda, Yashtimadhu, Bandhujeeva Vata-Pitta Shamaka, Chandan (Rakta)* is *Pittahara, Bharangi* and *Punarnava are Vata- kapha Shamaka.* Thus *Tridosha Shamaka* property ease the symptoms of *Vishajushta Mukhalepa.*

CONCLUSION

The soothing effect of *Chandanadi Lepa* relives features of *Vishajushta Mukhalepa* like *Mukhashyavata, Padminikantaka,* pus/*puya, Vedana, Kandu* and other symptoms are *Sfota (eruptions), Ruja, Srava, Twaka paka, Sweda, and Darna*. And Combination of this *Lepa* spacify *Kapha* and *Vata dosha*.

REFERENCES

1. Susruta Samhita with English translation of text and Dalhana's Commentary with Critical notes, Edited and translated by Prof. Vasant C. Patil and Dr. Rajeshwari N. M., Kalpa Sthana, Chaukhambha Publication, New Delhi- 11002, Reprint, 2022; 3, 1: 25-27.
2. Sushrut Samhita, Ayurved Tattva Sandipika Hindi Commentary by Dutta Shastri; Kalpa Sthana Ch Chaukhamba Sanskrit Sansthan; Reprint, 2018; 11: 1-60.

3. Sushrut Samhita, Ayurved Tattva Sandipika Hindi Commentary by Dutta Shastri; Nidana Sthana Ch Chaukhamba Sanskrit Sansthan; Reprint, 2018; 372: 13-39.
4. Sushruta Samhita With English translation of text and Dalhana's Commentary with Critical notes Vol. 3 Kalpa Sthana and Uttara Tantra, Edited and translated by Prof. Vasant C. Patil, Chaukhambha Publication, reprint, 2022; 8: 1-61.
5. Dhande P, Gupta A, Jain S, Dawane J. Anti-inflammatory and analgesic activities of topical formulations of Pterocarpus santalinus powder in rat model of chronic inflammation. J Clin Diagn, 2017; 11: 1-4.
6. Ham B, Kim M, Son YJ, Chang S, Jung SH, Nho CW, et al. Inhibitory effects of Pterocarpus santalinus extract against IgE/antigen-sensitized mast cells and atopic dermatitis-like skin lesions. Planta Med, 2019; 85: 599-607.
7. Gao W, Lin P, Hwang E, Wang Y, Yan Z, Ngo HT, et al. Pterocarpus santalinus L. regulated ultraviolet B irradiation-induced procollagen reduction and matrix metalloproteinases expression through activation of TGF-β/smad and inhibition of the MAPK/AP-1 pathway in normal human dermal fibroblasts. Photochem Photobiol, 2018; 94: 139-49.
8. Biswas TK, Maity LN, Mukherjee B. Wound healing potential of Pterocarpus santalinus Linn: A pharmacological evaluation. Int J Low Extrem Wounds, 2004; 3: 143-50.
9. Ismail Shareef. M, Leelavathi. S, Gopinath. S. M, Evaluation of in-vivo Activity of Clerodendrum serratum L. against Rheumatism. International Journal of Innovative Research in Science, Engineering and Technology, December, 2013; 2(12): 7750-7758.
10. Pastorino G, Cornara L, Soares S, Rodrigues F, Oliveira MBPP. Liquorice (Glycyrrhiza glabra): A phytochemical and pharmacological review. Phytother Res, 2018; 32(12): 2323-2339. doi: 10.1002/ptr.6178. Epub 2018 Aug 17. PMID: 30117204; PMCID: PMC7167772
11. Arora Poonam, Ansari SH and Nainwal LM, Clerodendrum serratum extract attenuates production of inflammatory mediators in ovalbumininduced asthma in rats. Turkish Journal of Chemistry, 2022; 46: 330-341.
12. Ratnam V., Venkata Raju R. R. Preliminary phytochemical and antimicrobial properties of pueraria tuberosa (Willd.) DC: a potential medicinal plant. Ethnobotanical Leaflets, 2009; 13: 1051–1059.
13. Pramanik S. S., Sur T. K., Debnath P. K., Pramanik T., Bhattacharyya D. Effect of Pueraria tuberosa on cold immobilization stress induced changes in plasma corticosterone

and brain monoamines in rats. J. Nat. Remedies, 2011; 11(1): 69–75. 10.18311/jnr/2011/52

14. Velmurugan V, Arunachalam G and V Ravichandran. Antibacterial activity of stem barks of Prosopis cineraria (Linn.) druce. Archives of Applied Science Research, 2010; 2(4): 147-150.