

## Review on Effect of *Mandookparni Kashaya Kavala* in Toothache

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### Abstract

Toothache is one of the burning problems of public dental health. According to a report of Indian Association of public health Dentistry, 80% of children and 90-95% of adult population suffer from periodontal disease in their life time. Untreated dental decay has been reported as the most important reason for toothache which impacts day today activities. There are so many treatment modalities established for the toothache in different health sciences. Mandookparni (*Centella asiatica*. Linn Urban) which is well-known nervine tonic also helps to reduce the burden of toothache in simple formulations without any side effects as it is also proven for its anti-inflammatory effect which need to be enlightened in clinical practice. Kavala (Gargling) with kashayas is one of the Ayurveda treatment modality explained in classics for the treatment of Urdhwa jatrugata vyadhis (Diseases above the clavicle). Thus in this paper an attempt has been made to highlight the effect of toothache with mandookparni kashaya kavala in toothache.

**Keywords:** *Kavala*; *Mandookparni*; Toothache.

### Introduction

Toothache is common symptom in most of the dantarogas (Diseases of teeth) [1-2].

Despite of so many advances in the oral health, modern civilization and sophistication, the man become unable to maintain the oral hygiene which results in one of the main consequences of dental problems i.e. toothache. Although fractured teeth and exposed dentin may produce dentin hypersensitivity and cause dental pain [3,4] untreated dental decay has been reported as the most important reason for toothache which can have deleterious impact on routine activities such as eating, studying, concentrating on delicate tasks, and so on [5-9]. It has been shown that a moderate-to-strong correlation exists between toothache prevalence and dental caries[10]. In ayurveda toothache explained as the symptoms of the *Dantarogas*; viz, *Krimidanta* (Dental

*caries*), *Dantaharsha*, *Dalana*(Enamel erosion), *Dantabheda* (Fractured tooth), *Dantapupputa* (Dental abscess) etc. [11]. In the United States alone, about 15 million working days are lost each year because of toothache [12]. An investigation that evaluated the effect of oral health on people in the United Kingdom in 1998 reported that 51% of adult individuals were affected negatively by dental problems[13], Nations other than UK and US are also sufferers. Here the cause whatever it may be, relief of pain should be recognized as a main need of sufferer. There are various methods to manage pain like analgesics and anesthetics as oral intake or local applications in the form of tooth paint or desensitizing pastes. Ayurveda therapy like *Kavala*, *Gandoosha*, *Pratisarana* are explained in management of such conditions and also for the maintenance of health [14]. Toothache is considered very important due to its prevalence and its need of early treatment. We get number of remedies which are having immense therapeutic values to get rid from this problem through Ayurveda line of management.

### Materials and Methods

Mandookparni (*Centella asiatica* (Linn.) Urban sys. kashaya kavala can be promising therapy for toothache. *Centella asiatica* (Linn.) Urban sys. synonym *Hydrocotyle asiatica* Linn. commonly known as Indian

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Pennywort, belongs to the family Apiaceae (previously known as Umbelliferae). In India the plant was earlier confused with *Bacopa monnieri* Wettst, as both plants have been sold in the market by the name "Brahmi".

However, the controversy has been resolved and it is concluded that Brahmi is *B.monnieri* and mandookaparni is *C. asiatica* [15] *Mandookparni* possess the guna of *Laghu, snighdha, sheeta, sara, tikta rasa, madhura vipaka* and *karmas are rasayana, jawarahara, vishahahara* [16]. Since ancient days Mandookparni has been always used as medhya (Nervine tonic), But it is also known for its anti-inflammatory and anti microbial properties by researches.

In India - Mandook parni [*Centella asiatica*] is valued as a classical medicine in both Ayurveda and Unani, the traditional Indian medicinal systems from thousands of years for various ailments in different diseases like asthma, skin disorders, ulcers and bodyaches [17,18,19,20], for improving memory, as a nervine tonic and in treatment of dropsy, elephantiasis, gastric catarrh, kidney diseases, leprosy, leucorrhoea and urethritis like inflammatory and infective diseases [21-23]. Folklore practitioners in Kerala, use *mandookparni* in the treatment of toothache of different origin till today.

*Kavala* is mentioned as the procedure to be followed everybody for maintenance of good oral health and also for the management of many diseases. *Kavala* mode of treatment is explained by almost all acharyas including *brihatrayi, laghutrayi* and recent authors. There is minimal variation is seen in explanation of the *kavala* procedure.

*Kavala* is the procedure where the medicated liquids are gargled by most authors [24]. According to *Sharangadhara* reference, holding medicated pastes in mouth is called is *kavala* [25].

In procedure of *kavala*, mild fomentation should be given to neck, cheeks and forehead, then liquids are taken in mouth and gargled. There is class Half of mouth liquid gargling is *shresta*, one third mouth of liquid is *madhyama* and one fourth mouth full liquid is considered as the *heena matra* for the *kavala* (A.S.Su31/5) [26].

There are different varieties of the *kavala* based on their effects viz, *Ropana, snehana, Lekhana* which indicated in different varieties of diseases based on their effects. There are different indications of the *kavala* in diseases like *manyaroga* (Diseases of neck), *karnaroga* (Diseases of Ear) and many other diseases along with the *mukha rogas* (Diseases of oral cavity) [27].

### Probable Mode of Action of *Mandookparni Kashaya Kavala*

*As yogaratnakar told*

Dantarogeshusarveshustovataharavidhihi |  
*pakwam tailam kavoshmam shastam kavalaharane* | [28]

Hence *dantashula* which is caused by vitiated *vata dosha* is pacified by the *snighdha guna* and *svadu vipaka, Vata-kaphahara properties*.

*Centella asiatica* has been in use since times immemorial to treat wide range of indications. It has been subjected to quite extensive phyto-chemical, experimental and clinical investigations to know its therapeutic benefits.

The plant extract analysis and chemical composition of *Mandookaparni* resulted that it contains various Glycosides (*Asiaticoside A and B, Centelloside*), Fatty acids, Triterpine acids, Flavanoids, 3-glucosylquercetin, 3-glucosylkaemferol and 7-glucosylkaemferol.

As the toothache causes are due to the altered bacterial flora of the oral cavity, in different conditions like dental abscess, caries etc. will occur. Probably antimicrobial, anti-inflammatory, immunomodulatory actions of *mandookparni* helps to cure the toothache by reducing the microbial load locally and by its innate quality it enhances the immunity [29].

As the *Dantashula* is caused by vitiated *vata dosha*, the *snigdha guna, svadu vipaka* of *mandookparni* mitigates the *vata*, thus subsides the pain. Various chemical components of *mandookparni* (Whole plant) viz. Triterpine acids, glycosides- Asiaticoside A, Asiaticoside B, Centelloside are proven for their anti microbial, Anti-ulcerative, Anti-tubercular, immune modulator effects [30].

So even though we don't get direct references for the *mandookparni* in the management of toothache, with practical evidences by folklore practitioner are testimony so that we can use that in the clinical practice of management of toothache.

Along with the action of the drug, mode of drug administration (*Kavala*) also may help in relieving toothache by reducing the local toxin load and maintaining good blood flow in oral cavity. Reduces microbial load in oral cavity and maintains proteins and minerals that protect tooth enamel and prevent tooth decay and gum diseases by improving the salivation.

## Summary and Conclusion

- Dushita *vata dosha* is the prime factor for shoola (Toothache) in dantagata roga and hence it is necessary to keep the *vata dosha* in balanced state.
- Oral cavity is always moist and sticky and naturally dominated by *kapha dosha*. Hence in the diseases of oral cavity it is also important to keep the *kaphadosha* also in equilibrium state.
- Toothache is due to various inflammatory and infective conditions of teeth and surrounding tissues.
- *Mandookparni* has both *vata-kapha shamaka* properties. And its proven for its Anti-microbial and Anti-inflammatory activity it will help in efficient management of the toothache due to various causes, and is safe, economic, easily and abundantly available.
- The treatmet like kavala with Mandookparni kashaya is necessary as it is not only socially desirable but is economically affordable, sustainable and involves minimum or no health risks and no tidious procedures.

## References

1. Yogatanakar, Edited and translated by Asha kumara PV Tewari A comprehensive treatise on ayurveda yogaratnakar Varanasi, India Choukaba vishwabharati oriental publishers and Distributors, First edition 2010, Cha no.63, pg no.1004-05.
2. Bhava mishra Edited by pandit shri brahma sankara mishra Bhava prakash with vidyotini hindi commentary, Part 2 Varanasi, India Choukamba Sanskrit sansthana, ninth edition 2005 ch.no.66, pg no.710-711.
3. Shahla Kakoeia, Masoud Parirokha, Nouzar Nakhaeeb, Forogh Jamshidshirazia, Maryam Rada, Sina Kakoeia; Prevalence of Toothache and Associated Factors: A Population-Based Study in Southeast Iran, IEJ 2013;8(3):122-128.
4. Guzzi G. Medicine forgets dentistry. Lancet. 2005; 366(9489):894.
5. Rahim-Williams B, Tomar S, Blanchard S, Riley JL, 3rd. Influences of adult-onset diabetes on orofacial pain and related health behaviors. J Public Health Dent. 2010;70(2):85-92.
6. Locker D, Grushka M. Response trends and nonresponse bias in a mail survey of oral and facial pain. J Public Health Dent. 1988;48(1):20-5.
7. Smith BH, Elliott AM, Chambers WA, Smith WC, Hannaford PC, Penny K. The impact of chronic pain in the community. Fam Pract. 2001;18(3):292-9.
8. Gherunpong S, Tsakos G, Sheiham A. The prevalence and severity of oral impacts on daily performances in Thai primary school children. Health Qual Life Outcomes. 2004;2:57.
9. Luo Y, McMillan AS, Wong MC, Zheng J, Lam CL. Orofacial pain conditions and impact on quality of life in communitydwelling elderly people in Hong Kong. J Orofac Pain. 2007;21(1):63-71.
10. Slade GD. Epidemiology of dental pain and dental caries among children and adolescents. Community dental health. 2001;18(4):219-27.
11. Susruta, Edited by Vaidya Yadavji trikamji acharya and Narayana ram acharya , Introduction by Prof. PV Sharma, Sushruta samhita with Nibandhsangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasaacharya on Nidanasthana, Publication: Chaukhamba orientalia, Delhi 4<sup>th</sup> Edition: 1980, Ch. No.16, Shloka no.14-34, p.331-332.
12. Rossman LE. HG, Wolcott JF. Diagnosis and management of orofacial dental pain emergencies. In: Cohen S HK, editor. Pathways of the pulp. 9th Ed. Mosby Elsevier, St. Louis, MI; 2006.p.40-58.
13. Nuttall NM, Steele JG, Pine CM, White D, Pitts NB. The impact of oral health on people in the UK in 1998. Br Dent J. 2001;190(3):121-6.
14. Vagbhata, Asthanga hridaya commented by Dr. Busulu Sitaram Varanasi, India Choukamba orientalia, First Edition. 2008.p.255-258.
15. The Wealth of India: A Dictionary of Indian Raw Materials and Industrial Products - Raw Materials Series, Vol. 3, (Publications and Information Directorate, CSIR, New Delhi), Rev Ser, (Ca-Ci), 1992.p.428-430.
16. Kaiyadev nighantu (Pathyapathyavibodak) edited and translated by Dr. Priyavrata Sharma and Dr. Gruprasad Sharma, Varanasi India, Choukamba orientalia, First Edition. 1979.p.133.
17. Sahu N.P., Roy S.K. and Mahato S.B., Spectroscopic determination of structures of triterpenoid, trisaccharides from *Centella asiatica*, Phytochem, 1989;28:852-2854.
18. Babu TD, Kuttan G and Padikkala J., Cytotoxic and anti-tumour properties of certain taxa of Umbelliferae with special reference to *Centella asiatica* (L.) Urban, J Ethnopharmacol, 1995;48(1):53-57.
19. Suguna L., Sivakumar P. and Chandrakasan G., Effect of *Centella asiatica* extract on dermal wound healing in rats, Indian J. Exp. Biol., 1996;34:1208-1211.
20. Zainol M.K., Abd-Hamid A., Yusof S. and Muse R., Anti-oxidant activity and total phenolic compounds of leaf, root and petiole of four accessions of *Centella asiatica* (L.) Urban, Food Chem., 2003;81:575-581.
21. Kumar M.H.V and Gupta Y.K., Effect of different extracts of *Centella asiatica* on cognition and markers of oxidative stress in rats, J. Ethnopharmacol, 79 2002;79:253-260.

21. Kakkar KK., Mandukaparni- medicinal uses and therapeutic efficacy, *Indian Drugs*, 1988;26:92-97.
  22. Sidhu Kiranjot, Kaur Ramthirath and Pannu Kunwarjeet, For managing editor indigenous way to maternal health care within the social system, *J. Soc. Sci.*, 2006;13(1):79-81.
  23. Das Sandipan, Khan ML, Rabha Abhijit and Bhattacharjya DK., Ethnomedicinal plants of Manas National Park, Assam, Northeast India, *Indian Journal of Traditional Knowledge*, 2009;8(4): 514-517.
  24. Vagbhata, *Asthanga hridaya* commented by Dr. Busulu Sitaram Varanasi, India Choukamba orientalia, First Edition. 2008.p.257.
  25. Sharangadhara, *Sharangadhara samhita with deepika hindi commentary*, Edited by Dr. Brahmanand Tripathi, *Sharangadhar samhita* Varanasi, India Choukamba surabharati prakashana, Reprinted on 2010.p.387.
  26. Vagbhata, *Asthanga sangraha* translated by Prof. KR Shrikanthamurthy Varanasi, India Choukamba orientalia, Reprint 2004.p.534.
  27. Vagbhata, *Asthanga hridaya* commented by Dr. Busulu Sitaram Varanasi, India Choukamba orientalia, First Edition. 2008.p.257.
  28. Yogatanakar, edited and translated by Asha kumara PV Tewari A comprehensive treatise on ayurveda yogaratnakar Varanasi, India Choukaba vishwa-bharati oriental publishers and Distributors, First edition, Cha no.63, 2010.p.1018.
  29. Sakshi Singh, Asmita Gautam, Abhimanyu Sharma and Amla Batra, *Centella asiatica (L.): A plant with Immense Medicinal Potential but Threatened; International Journal of Pharmaceutical Sciences Review and Research* 2010 Sep-Oct;4(2):9.
  30. Dora Bhavna et al. *Centella Asiatica: The Elixir of Life. IJRAP* 2011;2(2):431-438.
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