



CASE REPORT

LOBELIA NICOTIANAEOFOLIA- HEYNE A FOLK MEDICINE IN THE MANAGEMENT OF TONSILLITIS (TUNDIKERI): A CASE REPORT

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SUMMARY:

Inflammation of tonsils is called tonsillitis and is a highly prevalent in children of age 5 to 10 years and young adult between 15 and 25 years. In ayurveda, tundikeri has been mentioned with features of *sthoolashotha* (large swelling), *toda* (pricking type of pain), *daha* (burning sensation), *prapaki* (tend to undergo suppuration), *avarodha* (creates obstruction in throat for respiration and deglutition) and *karapasaphala* (cotton fruit) similar like swelling in throat. These features can be correlated with tonsillitis which is characterised by pain in throat, difficulty in swallowing, fever etc. Medical management of tonsillitis includes antibiotics, painkiller, corticosteroid and surgical removal of tonsils if not responding to medical management. But these approaches have their own limitations and lacunas such as drug resistance, reduced immunity, high cost etc. The drug *Lobelia nicotianaefolia*- Heyne is not explained in classics. The drug is acclaimed to be beneficial in *Tundikeri* by folk practitioners in certain parts of Karnataka. In present study, a 32 year old female patient presenting with the clinical feature of chronic tonsillitis visited department of Shalakyatantra, AIIA, New Delhi. The drug administered was *Lobelia nicotianaefolia* along with classical medicines i.e. *Dashamula kwatha*, *Amritarista* and *Khadhiradi vati*. The condition of the patient was improved markedly.

Keywords: Tundikeri, Chronic Tonsillitis, *Lobelia nicotianaefolia*, folk medicine

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INTRODUCTION:

Tonsils are lymphoepithelial tissues located near the oropharynx and nasopharynx. These immunocompetent tissues are the immune system's first line of defence against ingested or inhaled microorganisms and are thus prone to frequent attacks of infection. Tonsillitis is of two kinds namely acute and chronic. In acute tonsillitis there will be throat pain, dysphagia, malaise, anorexia, fever and body ache. The tonsils appear to be swollen and congested. There may be oedema of uvula and soft palate along with enlarged and tender jugulo-digastric lymph nodes. Recurrent complaints of sore throat, chronic irritation in throat with cough, foul smell due to pus in crypts, thick speech, difficulty in swallowing and choking spells at night represents chronic tonsillitis^[1]. It may lead to several complications like recurrent upper respiratory tract infections, growth retardation, bronchial asthma, rheumatic heart disease, rheumatic fever, snoring etc. Tonsillitis have high prevalence rate i.e. 53.3% and its repeated episodes occurs upto the age of 40 years^[2]. About 7.5% of people have a sore throat in any three-month period and 2% of people visit a doctor for tonsillitis each year^[3]. The clinical features of tonsillitis can be correlated to *tundikeri* mentioned in *Talugataroga* by *Acharya Sushruta* and *Kanthagataroga* by *Acharya Vagbhata*. *Tundikeri* is *Picchila* (Slimy), *Manda*

Ruka (Mild pain) and *Vanakarpas* (cotton fruit) like firm swelling present in throat near *Hanusandhi* (Temporo- mandibular joint)^[4]. The medical management is mainly concerned with symptomatic relief and antibiotics. Besides this surgical management is indicated if recurrence interferes the day to day work. The ayurvedic management include oral medicine to alleviate the aggravated of *kapha* and *rakta dosha*, *dhoompana*, *pradhamana nasya*, *virechana*, *vamana* according to vitiated predominant *doshas* and surgical intervention include incision, excision^{[5], [6], [7]}. High prevalence and limited management modalities arises the need to find alternative solution to the disease with no or minimal side effects and high success rate.

CASE REPORT

A 32 years old female visited department of Shalakya Tantra, AIIA, with chief complaints of discomfort and pain in the throat, difficulty in swallowing and swelling of tonsils since 2 weeks. It was associated with generalised body symptoms like tiredness and bodyache. Patient occasionally felt burning sensation in throat and mild pain in bilateral ears (off-on). The chronicity of disease is 12 to 16 months, the symptoms reoccurs off-on mainly after eating cold and citrus food items. Patient took over the counter drugs whenever required. The details of which were not known to patient. Patient's previous medical history and

family history was not significant. There was no other systemic disorders. The patient was found to be afebrile, had a decreased appetite with normal bowel movements and micturition. Systemic examination, including respiratory and other systems were reported normal (pulserate=78/minute, Respiratory

Rate =18/minute and Blood Pressure = 120/78mmHg). The *Shariraprakriti* of the patient was *Pitta- kaphaja*, had *Mridukostha* (on the basis of bowel habit), *Madhyam bala* (on the basis of strength). Her *Satwa, Sara, Samhanana, Ahara Shakti, Vyamashakti, Pramana, Satmya* were *Madhyam*

Table 1: Oral Cavity Examination

Tongue	Mild coated
Buccal mucosa	Normal bilateral
Uvula	Congestion ++
Anterior pillar	Congestion ++
Posterior pillar	Not seen
Posterior pharyngeal wall	Congestion ++
Right tonsil	Grade 2, Congestion+, Oedema+, Swollen+, Hypertrophied+
Left tonsil	Grade 3, Congestion+, Oedema+, Swollen+, Hypertrophied+
Right ear	EAC - Normal, TM- normal, Cone of light : seen
Left ear	EAC - Normal, TM- normal, Cone of light : seen
Lymph nodes	Jugulo-digastric lymph nodes-not palpable, no pain

Investigation:

Complete blood count, ESR, BT, CT of the patient was performed before and after treatment.

Table 2: Management of the disease

S.No.	Duration	Drug	Dose	Time	Mode of administration

S.No.	Duration	Drug	Dose	Time	Mode of administration
1	2 weeks (02/03/19 - 16/03/19)	Lobelia nicotianaefolia mixed with lemon juice	200 mg	Tid	Orally
		Lobelia nicotianaefolia mixed with lemon juice	200 mg	Bd	<i>Pratisarana</i> (local application) by finger
2	1 week (17/03/19- 24/03/19)	Dietary regimen and <i>kavala dharna</i> with <i>haridra</i> water	—	-	-
3	4 weeks (25/03/19 - 22/04/19)	<i>Dashmoola kwatha</i> ,	10gm	Bd	Orally
		<i>Amritarishta</i>	10ml	Tid	Orally
		<i>Khadiradi vati</i>	200mg	Tid	To chew

Do's And Don'ts: Patient was asked to avoid cold and citrus food items like curd, milk, cold drink, ice cream. Patient was advised gargles with *Haridra* (curcumin) water.

Observation and Results:

There was significant reduction in size of right tonsil from grade 2 to grade 1 and left tonsil

from grade 3 to 2. The chief complaints of the patient like throat pain and discomfort in throat subsided. There was no difficulty in swallowing or burning sensation in throat. There was no significant change in routine haematological investigation.

Table 3: Results

S. No.	Sign and symptoms	Before treatment	After treatment
1	Pain in throat	VAS 6	VAS 0
2	Burning sensation in throat	Present	Absent

3	Dysphagia	Present	Absent
4	Earache	Present	Absent
5	Right enlarged tonsil	Grade 2	Grade 1
6	Left enlarged tonsil	Grade 3	Grade 2
7	Lymph nodes	Jugulo-digastric lymph nodes-not palpable, no pain	Jugulo-digastric lymph nodes-not palpable, no pain



Fig. 1 Before Treatment

DISCUSSION:

Persons with reduced immunity are prone to URTI easily and may lead to inflammation of tonsil. Tonsillitis may be localised episode, in association with URTI or as a part of generalised systemic infection. The chances of recurrence of tonsillitis may occur due to incomplete treatment, improper nutrition and low immunity. *Tundikeri* is *kapha rakta* predominant disease. Therefore, patients with *kapha prakriti* and consuming *kapha* aggravating diet and lifestyle may develop the



Fig. 2 After Treatment

disease. Out of all the available varieties, *Lobelia nicotianaefolia*- Heyne has been selected for this patient to lay scientific basis to the medicinal value of the drug as it is acclaimed to treat tonsillitis in folk medicine. Along with the folk medicine, the drugs told in Ayurvedic texts were given to the patient. After making the diagnosis, the patient was given *Lobelia nicotianaefolia*- Heyne for oral administration and local application for two weeks. In first week, the discomfort and pain in throat reduced from vas scale of 6 to 4,

congestion of tonsils also reduced markedly. In second week the pain in throat reduced from vas scale of 4 to 2, there was mild reduction in size of tonsils. The drug *Lobelia nicotianaefolia* is bitter (*Tikta*), pungent (*Katu*) in taste, *Laghu*, *Ruksha*, *Tikshana guna*, *Katu Vipaka* and *Ushna Virya*^[8]. *Katu Rasa* is *Mukha shodhaka*, *Agni deepaka*, *Abhishyanada nashaka Kaphna nashaka*, *Laghu*, *Ushna* and *Ruksha*^[9]. *TiktaRasa* is *Agni deepaka*, *Ruksha*, *Sheeta*, *Laghu Guna*. Both the *Rasas* have *Lekhana* property^[10]. Because of these inherent properties of the drug, after getting absorbed it may scrap away the vitiated *Kapha*. *Ushna veerya* has *Lekhana*, *Chedaniya*, *Shodhana* properties which may help to correct the vitiated *Kapha*. Later for one week patient was advised to follow do's and don'ts and do gargles with *haridra* water. Evaluation of patient after 3 weeks showed there was no pain in throat. For next 4 weeks, *Amritarishta*, *Dashmoola Kwath Churna*, *Khadiradi vati* was administered to the patient. Pain in throat was reduced from vas scale of 2 to 0, there was significant reduction in size of right tonsil from grade 2 to grade 1 and left tonsil from grade 3 to 2. *Amritarishta* constitute of *Amrita* (*Tinospora cordifolia*) and *Dashmoola*. *Amrita* is shown to have anti inflammatory, analgesic activity, antispasmodic activity, immunomodulation, protective action against allergens and toxins, and preventing oxidative

stress related to infections work as contributory mechanisms for beneficial effects in infections^[11]. *Dashmoola kwatha* is chiefly *vata-kapha shamaka* and it is considered as *shothahara* (antiinflammatory), *shvasahara* (relieving breathing troubles) and *ama pachaka* (antioxidant or free radical scavenging property). *Dashmoola* showed anti-inflammatory, analgesic and anti-platelet effects comparable to that of aspirin^[12]. *Dashmoola* was found to strong antibacterial against *S. aureus*, *S. epidermidis*, *B. subtilis*, *S. typhi*, *S. typhimurium*, *E. coli*, *P. vulgaris*, *P. aeruginosa*, *E. aerogenes* and *K. pneumoniae*^[13]. *Khadiradi vati* was given for soothing the throat and for *Khadiradi vati*, *Amritarishta* gives better results in the management of tonsillitis managing the vitiated *kapha dosha* and it also cures the diseases of throat, tongue and promote good smell in mouth, excellent appetite, sturdiness of tooth and speech^[14].

CONCLUSION:

Lobelia nicotianaefolia is being used as a folk medicine in southern part of Karnataka to treat tonsillitis. The oral administration and local application of *Lobelia nicotianaefolia*, *Dashmoola kwatha*,. It showed marked improvement in discomfort and pain in throat. There was reduction in size of tonsils. However the usefulness needs to be validated through well defined clinical trails.

REFERENCES:

1. P L Dhingra and Shruti Dhingra : Diseases of Ear Nose and Throat, 6th edition 2014, Elsevier, Delhi, chapter 51, P. 256-259
2. Dharshana Et Al: A Clinical Study On The Effect Of Pippalyadi Churna Pratisarana In The Management Of Tundikeri W.S.R. To Chronic Tonsillitis International Ayurvedic medical Journal, Volume 4; Issue 12; December- 2016
3. Wikipedia, the free encyclopedia. <https://en.wikipedia.org/wiki/Tonsillitis> (accessed 19 July 2019).
4. Yadunandana Upadhyaya, Astanga Hridaya of Vagbhatta, "Vidyotini" Hindi Commentary, Uttar Tantra, Chapter 21 Versus 47, Reprint edition 2009, Varanasi : Chaukhambha Sanskrit Bhawan, 2009:712
5. Rajeshwara Datta Shashtri, Charaka Samhita, chapter 26 verse no. 187, reprint 2016, Chaukhambha Bharti Academy: 752
6. Ambikadatt Shastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Sutrasthana, chapter 25 versus 8, Reprint edition; 2010, Varanasi: Chaukhambha Sanskrit Sansthana, 2010: 134.
7. Ambikadatt Shastri, Sushruta Samhita of Sushruta with Ayurveda Tatva Sandipika Hindi Commentary, Sutrasthana, chapter 25 versus 8, Reprint edition; 2010, Varanasi: Chaukhambha Sanskrit Sansthana, 2010: 134.
8. Pharmacognostic, Pharmacological, Phytochemical and Pilot clinical study on Lobelia Nictianaefolia, Heyne (Devanala) a Folk medicine. Scholar :Dr. Ravi Rao Sorake, Guide : Prof. P. P. Sharma, Co-Guides : Dr. B. Ravishankar, Dr.Subrata De.(2007)
9. Kashinatha Sashtri , Gorakhanatha Chaturvedi, Charaka Samhita of Agnivesha, Sutrasthana, Part 1, Chapter 26, Verse no. 42, Reprint 2015, Chaukhambha Bharti Academy: 506
10. Ibid Sutrasthana chapter no. 26, verse no. 43: 506
11. Madhav Mutalik et al, Tinospora Cordifolia and its varied activities: what is believed and what is known?, International Journal of Current Research and Review, Vol 03 issue 12
12. Reshma R. Parekar, Experimental evaluation of analgesic, anti-inflammatory and anti-platelet potential of *Dashamoola*, J Ayurveda Integr Med. 2015 Jan-Mar; 6(1): 11–18
13. Tambekar DH, Dahikar SB. Exploring antibacterial potential of some ayurvedic preparations to control bacterial enteric infections. J Chem Pharm Res, 2010; 2(5): 494- 501.
14. Kanjiv Lochan, Bhisajya Ratnavali of Govinda Dasji Bhisagranta, Volume 3, Chapter 61, Verse no. 104-114, Reprint 2014, Chaukhambha Sanskrita Sansthana , Varanasi.

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