

A CLINICAL STUDY ON TANKANA BHASMA PRATISARANA IN CHRONIC TONSILLITIS

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ABSTRACT

Tundikeri or Tonsillitis is a common throat problem predominantly affects children and even young adults. It gives discomfort to the person by its characteristic features such as sore throat, difficulty in swallowing and halitosis. When it becomes chronic and left untreated it leads to simple to chronic complications like otitis media, meningitis and rheumatic fever. Surgical removal of tonsils is the only option of management in modern science. To manage this condition effectively without surgery a simple approach has necessitated and keeping this objective, an observational study in the management of Tundikeri (Chronic Tonsillitis) was conducted on patients (n=10) of *Shalakyatantra* OPD of Sri Kalabyraveswaramy Ayurvedic Medical college, Hospital. *Tankana bhasma* (Sodium borate) with honey was used for *Pratisarana karma* once daily and the results drawn statistically conferred the efficacy of *Tankana Bhasma pratisarana* in chronic tonsillitis.

Keywords: *Tundikeri*, Tonsillitis, *Tankana bhasma*, *Pratisarana*

INTRODUCTION

As per *Susruta acharya*, *Tundikeri* is a disease of *Taalū* (Palate) which is characterised by *shotha*, *toda* and *paka*.^[1] *Vagbhatacharya* includes it in *Kantagatarogas* (Throat diseases) since it occurs at the *Hanusandhi-ashrita kantapradesha*.^[2] As per both the Acharyas, it is a *Kapha-rakta doshapradhana vyadhi*. The clinical features of *Tundikeri* can be correlated to Tonsillitis mainly characterized by enlarged and congested tonsils. The palatine tonsil is a bilaterally paired mass of lymphoid tissue situated in the lateral wall of oropharynx. They are the major source of T and B lymphocytes for local mucosal defence.^[3] Thus they are the immune system's first line of defence against ingested or inhaled bacterial or viral pathogens and

are prone to recurrent attacks of infection. When there is frequent bacterial or viral infection to the tonsil, it loses its efficiency in defence mechanism. The incidence of tonsillitis is usually after first year of life, mostly affects children and young adults and rarely after fifty years.

Tonsillitis is of two types acute and chronic. In acute, there will be sore throat, dysphagia, malaise, fever and ear ache. Throat examination reveals hyperaemia of pillars, soft palate and uvula. The jugulodigastric lymph nodes are enlarged and tender.

Chronic tonsillitis is characterised by recurrent attacks of sore throat, dysphagia, and throat irritation with cough, bad taste in mouth, foul breath and difficulty in swallowing^[4]. The

condition will also effect on distant organs of the body by acting as a septic focci due to bacteraemia, allergic reaction to bacteria and bi-products of inflammation etc. It will lead to systemic diseases such as rheumatic heart disease, acute glomerulonephritis, chronic bronchitis, rheumatic arthritis and stunted growth.^[5] Hence timely management to avoid recurrence rate and arising complications out of it is very essential.

Pratisarana is said to be one of the line of treatment in *Tundikeri*.^[6] It is the local application of the drug and rubbing, which mainly possesses therapeutic effects such as *Shodhana* (cleansing) and *Ropana* (healing). In *Pratisarana*, *Choorna* (fine powder) is mixed with honey to make a paste; the paste is taken on with help of a steriled cotton bud and then applied over the tonsillar crypts and rubbed. Also, *Pratisaraneeya Kshara* is indicated for all the seven types of *Mukharogas*, as per *Susruta*^[7] In this study *Tankana bhasma* (Sodium borate), was used for *pratisarana karma* which possesses *kshara* property.

OBJECTIVE:

To assess the effect of *Tankanabhasma pratisarana* in Chronic Tonsillitis

MATERIALS AND METHODS

Sample source: 10 patients diagnosed with chronic tonsillitis were taken for the study from SKAMC, Hospital and Research centre, Vijayanagar. Patients were randomly selected irrespective of their sex, religion and socio-economic status. Each patient was selected for the trial after voluntary consent.

Study design: Randomized open-arm clinical study.

Diagnostic criteria:

- Pain

- Dysphagia
- Swollen tonsils
- Reddish discoloration of tonsils
- Halitosis
- White pus-filled spots on the tonsils
- Anterior cervical lymphadenopathy

Medicaments Used:

Tankana bhasma (purchased from Baidyanth company) and honey (purchased from Dabur company)

Inclusion criteria:

1. Clinically diagnosed patients of chronic tonsillitis
2. Any individual above 8 years and below 40 years of age were selected irrespective of sex, occupation, religion, socio-economic status etc.
3. Minimum 6 months of chronicity

Exclusion criteria:

- Patients with peritonsillar abscess, tonsillolith, tonsillar cyst and any other systemic diseases.
- Patients with complications of tonsillitis such as bronchial asthma, rheumatic heart disease, rheumatic fever etc
- Tonsillitis associated with malignancy
- In pregnant ladies

Laboratory investigations:

Routine blood investigation: Hb%, TC, DC, E.S.R.

Intervention:

Total study period is of twenty one days. Patients were treated with *tankana bhasma-madhu pratisarana* i.e. application of paste of *tankana bhasma* and honey over tonsillar crypts once daily for seven days and follow up period was one month.

Assessment criteria

The changes in signs and symptoms were assessed by using suitable scoring

pattern ranging from 0-4. Clinical assessment was done on alternate days for 7 days and during the follow up period of one month, where assessment was done once in fifteen days (two follow up). The data obtained was analysed using student's Paired t-test.

Observations & Results

In the present study clinical features like dysphagia, swelling, reddish discolouration, halitosis, white pus-filled

spots on the tonsils and lymphadenopathy were noted in all the patients. Among the subjects selected, 30% were male, 70% were female, 60% were vegetarians and 40% were non-vegetarians; 60% were Hindu and 40% were Muslim, 60% were poor class and 40% were middle class.(Table No.1)

Table No.1 Demographic data of patients in the present study

Age group									
	8-13	13-18	18-23	23-28	28-33	33-38	38-43	TOTAL	& %
SEX									
Male	1	1	0	0	0	0	1	3	30%
Female	3	2	2	0	0	0	0	7	70%
RELIGION									
Hindu	2	2	1	0	0	0	1	6	60%
Muslim	2	1	1	0	0	0		4	40%
DIET									
Vegetarian	1	2	3	0	0	0	0	6	60%
Mixed	0	1	2	0	0	1	0	4	40%
SOCIO-ECONOMIC STATUS									
Poor	3	2	1	0	0	0	0	6	60%
Middle	1	1	1	0	0	0	1	4	40%
Rich	0	0	0	0	0	0	0	0	0%

In this clinical study it was observed that there was a reduction in mean score pre- treatment to post-treatment

in signs and symptoms of chronic tonsillitis. (Table No.2).

(Table No.2)- Mean Score before treatment and after treatment

SL.No	Parameters	BT(Mean)	AT(Mean)
1	Pain	2	0.02
2	Dysphagia	2.5	0.03
3	Swelling	3.3	0.04
4	Reddish discolouration	2.7	0.01
5	Halitosis	1	0.03
6	White pus-filled spots on tonsils	2.4	0
7	Lymphadenopathy	2.8	0.10

Paired t-test was applied to assess the efficacy of treatment. Statistically pain, dysphagia, swelling, reddish discolouration, white pus filled spots on tonsils

and lymphadenopathy was highly significant (p<0.001) and halitosis was significant (p<0.05). (Table No.3)

Table No.3 Statistical Analysis in treatment pattern of changes before and after

Variables	Mean	SD	SE	t-value	P
Pain	3	0.8164	0.2581	11.62	<0.001
Dysphagia	2.2	0.7055	0.2231	9.86	<0.001
Swelling	2.9	0.3162	0.1	29	<0.001
Reddish discoloration	2.4	0.6992	0.2211	10.85	<0.001
Halitosis	0.5	0.5270	0.1666	3.0012	<0.05
White pus filled spots on tonsils	2.5	0.8498	0.2687	9.30	<0.001
Lymphadenopathy	1.8	0.4216	0.1333	13.53	<0.001

DISCUSSION

Tankana basma (Sodium borate) is a *mrudu kshara* (Alkaline substance) which has got properties like *Katu rasa*, *Ushna virya*, *Rooksha* and *Tikshna guna*. It is having *doshahara* properties like *Kapha visleshana*, *Vatahara*.^[8] *Rookshaguna*, *Kshara swabhava* and *Tikshna guna* helps to penetrate deep and drain the pus by reaching from the minute depressions or crypts and relieves the pain. The *katu rasa* and *ushna veerya* help to reduce the swelling. Once the pus is drained out halitosis comes down, which is the result of pus accumulation in crypts. Honey is *kapha-pittahara* and a good media for *tankanabhasma*. As *Sodium borate* is known as a best bleaching agent and antiseptic, which helps in the removal of media for the growth of pathogens⁹. From this it can be inferred that they act as *lekhana* in eroding the layer formed by the infection and pus and clearing the *srotases* and thus reducing the congestion and other signs of Tonsillitis.

CONCLUSION

Tonsillitis is a common disease by incidence, especially in younger

children. The local application of *Tankanabhasma* with *Madhu* is *Vyadhihara* by nature. As the procedure and action of drug is directly at the diseased site, therefore the remedy was fast acting in relieving the signs and symptoms. No side effects were encountered during the course of study. During the follow-up period of one month no patients had recurrences from which it can be justified that *Tankana bhasma pratisarana* is a safe procedure, cost effective, best conservative method and efficacious in Chronic tonsillitis.

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Source of support: Nil

Conflict of interest: None Declared