

A CLINICAL STUDY ON THE EFFECT OF PIPPALYADI CHURNA PRATISARANA IN THE MANAGEMENT OF TUNDIKERI W.S.R. TO CHRONIC TONSILLITIS

Santoshkumar¹ Darshana² Veena Shekar³ Hamsaveni V⁴

^{1,2}PG SCHOLARS, ³LECTURER, ⁴PROFESSOR;

Dept of Shalaky Tantra. SKAMCH & RC, Bangalore, Karnataka, India

ABSTRACT

Ayurveda, being an ancient medical science, is formulated on the scientific parameters available in those times. It has been divided into *Ashtangas* in which *Shalaky Tantra* is one among them and given prime importance by all our ancient seers. In this branch *mukha rogas* are explained in a detailed way along with its signs and symptoms and with its surgical and non-surgical treatment methodologies by our *acharyas*. *Tundikeri* is considered as one of the talugata roga mentioned by *Acharya Sushruta* which simulates tonsillitis based on its signs and symptoms. It is mainly due to the vitiation of *kapha* and *rakta* and presents with features of *kathina Shotha* (inflammation) resembling *karpasa phala* in *Hanusandhi* (mandibular), *pichhilata* (slimminess) and *mandaruja* (mild pain). Tonsillitis is a common disease with high prevalence rate of 53.3%. In tonsillitis, similar features are explained such as, difficulty in deglutition, unpleasant taste, thick speech, choking spell at night and bad smell. The line of treatment is *kshara* application, *pratisaraneeya kshara* acts on hypertrophied tonsils in two ways. It cauterizes hypertrophied mass directly because of its corrosive nature. Thus produces shrinking effect on tonsillar hypertrophy. As *pippalyadi churna* is having *sukshma* (minute), *teekshna* (sharp), *vyavayi* properties it penetrates in to the crypts and core of tonsillar tissue and due to, *Chedana* (excision), *bhedhana* (incision), and *lekhana* (scraping), *ushna* (hot), *teekshna* (sharp) properties performing *kapha rakta shamaka*, *shodhana*, *shotahara*, *vedanahara* and *ksharana* of localised *vikruti* and thus helps in *samprapthi vighatana*.

Key words: *tundikeri*, *mukha rogas*, *tonsillitis*.

INTRODUCTION

Our *acharyas* have clearly explained about the *mukha rogas* which are even true for today. They have classified the *mukharogas* in a systemic way based on the specific *lakshanas* along with their surgical and nonsurgical management. *Acharya Sushruta* has explained *tundikeri* as a *talugata roga* while *Acharya Vagbhata* has explained this as a *kanthagata roga*. Every year in India approxi-

mately 2 lakhs of patients with known case of tonsillitis have their tonsils removed and many of them probably derived no real benefit from the operation

Tonsils are muco-lymphoid tissues situated in oro-pharynx as a policeman at the gateway of oro-pharyngeal route and considered as one of the chief immuno component tissues. Thus more prone to get infection from

nasal route as well as oral route and become hypertrophic, this is because of their direct relation with immune system and local inflammatory causes. Hence this factor may enhance the incident of tonsillitis and cause for its recurrence. Though disease is managed by the antibiotics, frequent episodes of the infection interfere with the normal growth and development of the child and also leads to chronicity and vulnerable for infectious disease, due to incomplete treatment or resistance of organisms to antibiotics. Often systemic complications such as laryngeal oedema, acute otitis media, quinsy, rheumatic fever, rheumatic heart diseases are often seen as systemic complications.

These facts gives a potential need for management of *tundikeri* without surgical intervention by preventing the complications and recurrence effectively which can be better accepted by patients, hence the present study is taken up with *Pippalyadi churna pratisarana* in the management of *tundikeri*.

According to Acharya Sushruta: *sthula soph* (inflammation), *toda* (pricking pain), *daha* (burning sensation), *prapaki* (*suppuration*) are the features of *tundikeri*.

According to Acharya Vagbhata: *Katina soph* (inflammation) similar to *karpasiphala* situated in *hanusandh* (mandibular joint) in *kanthapradesha* (throat region) having *picchilata* (slimminess), *kathina* (hard) and *mandaruja* (mild pain) are the features of *tundikeri*.

Features of Chronic tonsillitis according to modern:

It is a common disease with high prevalence rate of 53.3% and repeated episodes which occurs upto the age of 40 years.

Basically it is an inflammation of the tonsils, the fleshy clusters of tissue on both sides of the back of the throat that fight off germs that enter the body through the mouth. Recurrent attacks of acute tonsillitis in the

presence of predisposing factors leads to chronicity.

TYPES:

1. **Chronic follicular tonsillitis:** Tonsillar crypts are full of infected cheesy material which shows on the surface as yellow spots
2. **Chronic Parenchymatous Tonsillitis:** Tonsillar tissue as a whole gets enlarged and interferes with speech, deglutation and respiration
3. **Chronic fibroid tonsillitis:** Characterised by small infected tonsillitis with history of repeated sore throat

Main clinical features are pain, congestion, halitosis, difficulty in swallowing i.e. dysphagia, lymphadenopathy associated with fever, cough, malaise etc.

Treatment:

1. Conservative treatment consists of attention to general health, diet, infections of teeth, nose, and sinuses.
2. Analgesics
3. Antibiotics
4. Tonsillectomy is indicated when tonsils interfere with speech, deglutition and respiration or causes recurrent attacks.

Aim and objective:

1. To evaluate the effect of *pippalyadi churna pratisarana* in the management of *tundikeri* (chronic tonsillitis)

Materials and Methods:

The patients attending the OPD & IPD of Dept. of Shalaky Tantra of SKAMCH& RC, Bangalore were registered for this study

Inclusion criteria:

Patients between the age group of 10-40 years of either sex with signs and symptoms of chronic tonsillitis

Exclusion criteria:

1. Tonsillitis associated with complications such as Peritonsillar abscess, Tonsillar cyst and tonsillo lith.
2. Patients associated with other systemic disorders which intervenes with the course of treatment

PROFORMA: A special case proforma was prepared for the evaluation of etiopathogenesis and assessment of treatment efficacy

Study design:

An open label clinical trial was conducted on 10 patients fulfilling the criteria for the diagnosis of the disease Tundikeri (Chronic tonsillitis) after obtaining a informed consent in the present study.

DRUG DOSE& DURATION:

Ingredients of Pippalyadi kshara:

- Pippali* – 1 part
- Pippalimula* – 1 part
- Chavya* – 1 part
- Chitraka* – 1 part
- Nagara* – 1 part
- Yavakshara* – 1 part
- Sarjakshara* – 1 part

Trividha karma of pratisarana karma:

1. Pain (*Ruk*)

CRITERIA	GRADE	SCORE
No pain	Nil	0
Pain on external pressure	Mild	1
Pain during deglutition and relieves thereafter	Moderate	2
Pain increases on deglutition and remains consistent	Severe	3

2. Congestion (*Raga*)

CRITERIA	GRADE	SCORE
No congestion	Nil	0
Congestion limited to Tonsillar surface	Mild	1
Congestion limited to tonsillar surface and pillars	Moderate	2
Congestion extending to surrounding structures	Severe	3

3. Dysphagia

CRITERIA	GRADE	SCORE
No difficulty while swallowing	Nil	0
Difficulty in swallowing solid food substances	Mild	1
Difficulty in swallowing solid and liquid food	Moderate	2
Difficulty in swallowing saliva	Severe	3

Poorva karma (pre-operative procedure):

Patient is made to sit in comfortable position in *nirvata* and *rajo-dhuma rahita pradesha*.

Pradhana karma (operative procedure):

Sterile tongue depressor was taken and applied over the dorsum of anterior 2/3rd of tongue.

pippalyadi churna mixed with *madhu* was applied over the inflamed tonsil carefully.

Pashchat karma (post-operative procedure):

Advice to be nil orally for one hour.

Pathya-apathya:

Advised not to take cold and freezed food items.

Duration - 22 days

chikitsa avadhi is 7 days

Nirikshana avadhi 15 days

Assessment criteria

GRADATION INDEX

SUBJECTIVE PARAMETERS

4. Halitosis

CRITERIA	GRADE	SCORE
No halitosis	Nil	0
Halitosis experienced by patient alone	Mild	1
Halitosis experienced by physician on examination	Moderate	2
Halitosis experienced by others while talking	Severe	3

OBJECTIVE PARAMETERS:

1. Size of tonsils

CRITERIA	GRADE	SCORE
No swelling	Nil	0
Enlarged within the pillars	Mild	1
Enlarged beyond the pillars	Moderate	2
Kissing tonsils	Severe	3

2. Lymph node enlargement

CRITERIA	GRADE	SCORE
No palpable lymph nodes	Nil	0
Palpable lymph nodes without tenderness	Mild	1
Palpable lymph nodes with tenderness	Moderate	2
Visible prominent lymph nodes	Severe	3

TABLE NO 1: Mean score before treatment after treatment

SL.NO	PARAMETERS	BT(mean)	AT(MEAN)
1	Pain	1.4	0.566
2	Congestion	1.3	0.433
3	Dysphagia	1.033	0.4
4	Halitosis	1.46	0.661
5	Enlarged tonsils	1.5	0.530
6	Lymphadenopathy	1.066	0.4

Graph No 1 showing the symptoms before treatment and after treatment

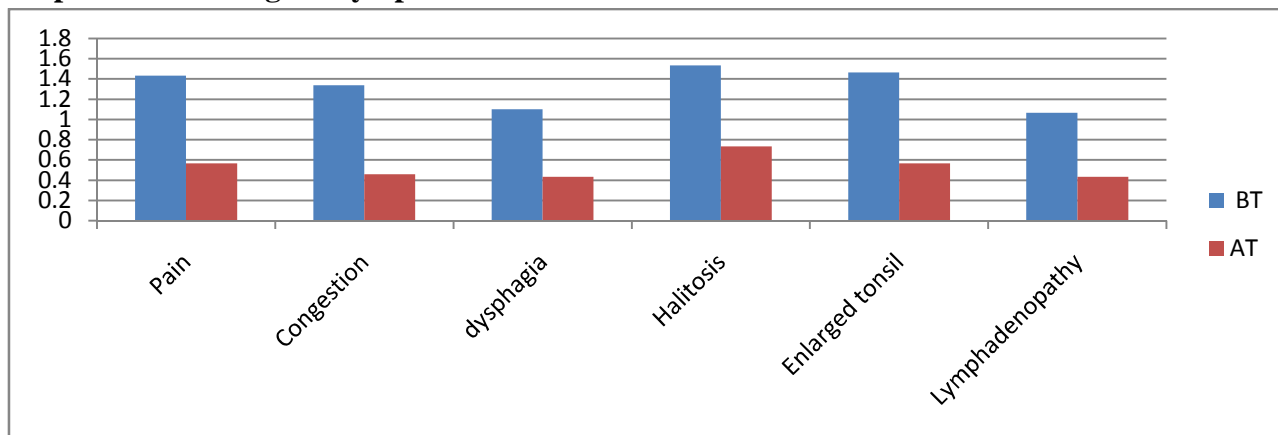


TABLE NO 2: Statistical Analysis in treatment pattern of before and after,

Parameter	Mean	SD	SE	t-value	p-value
Pain	0.833	0.647	0.449	5.750	<0.001
Congestion	0.866667	0.62881	0.140	6.160841	<0.001
Dysphagia	0.666667	0.5466	0.122298	5.451164	<0.001
Halitosis	0.734	0.449	0.10033	7.284856	<0.001
Enrage tonsil	0.933	0.639	0.143	5.0626	<0.001
Lymphadenopathy	0.6	0.491	0.111	5.352	<0.001

Observation and results:

- The *nidanas* for *tundikeri* observed in the present study can be summarised as *sheeta* and *madhura ahara sevana*, *diwa swapna*, *mamsa* and *matsya sevana*, exposure to *sheeta vata* and *sheeta sthana*
- In the present study, incidence of the disease was found more in paediatrics and adolescence age i.e. between 10-20 years of age and Majority of the patients were students(52.5%), Majority of the patients were males(60%), belonged to the poor (50%) and middle (47.5%) socio economic status. Most of the patients were of *vata kapha* (45%) and *vata pitta* (42.5%) *prakruti* and majority of the patients were of *madhyama sara*, *samhanana*, *pramana*, *satmya*, *satva* and *vyayama shakti*. More number of the patient were having *avara abhyavaharana shakti & jarana shakti*
- In the present study pain was observed in 90%, congestion in 85%, halitosis in 80%, dysphagia in 75%, moderate enlargement in size of tonsil's in 75% and lymphadenopathy in 85%.
- Effect of treatment was statistically highly significant on the parameters namely pain, dysphagia, halitosis and lymphadenopathy

MODE OF ACTION OF PRATISARANA:

In the present study there was a reduction in Pain, congestion and size of tonsils. This may be due to the analgesic, antimicrobial and anti-inflammatory action of ingredients of *pippalyadi churna*. All these ac-

tions are enhanced by *yogavahi* property of *kshoudra*. Since *madhu* has *chedana* and *kaphahara* properties it helps in bringing about penetration of the drug deep into the tissue of tonsil. The medicine contains *kshra guna* which acts as a chemically cauterizing agent over the tonsillar tissue. Local application of *kshara* reduces the *vikrita kapha*

DISCUSSION

Tundikeri under the *talugata roga* is one the most common disease upright now with high prevalence rate of 53.3%¹ and repeated episodes which occurs up to the age of 40 years. The recurrent attack of tonsillitis makes the disease chronic & vulnerable for other infectious diseases. Several health hazards like laryngeal oedema, acute otitis media, quinsy, rheumatic fever, rheumatic heart diseases are often seen as systemic complications. According to Sushuruta, *Tundikeri* caused due to vitiation of *kapha* and *rakta dosha* and is characterized by. *Sthoola Shopha* (hard swelling), *Toda* (pricking type of pain), *Daha* (burning sensation), *Paka* (suppuration). Acc. to Vagbhata, *Katina shopha* (hard swelling), resembling the fruits of *karpasa* situated at *hanusandhi* associated with *pichhilata* and *mandaruja*. Vagbhata has mentioned one should not neglect the Diseases of kantha as it is the pathway of food and air. It should be treated as an emergency. He has mentioned Medical, para-surgical, and surgical measures for the management of *tundikeri*. The drugs in the *pippalyadi churna* are having *chedana* (in-

cision), *lekhana* (scraping) and *bhedana* (excision) property which when applied on the inflamed part will help to reduce the inflammation from the root.

All the drugs of *pippalyadi churna* possess *deepana* and *pachana*, *bhedana* and *chedana* property *Sroto shodhana*, by virtue of these properties it eliminates the vitiated doshas from the srotas.

Kaphahara: Qualities which scrape away the *vikrita Kapha* and *sanchita mala*, acts as a *Doshapratyaneeka Chikitsa* in *tundikeri*.

Shothahara: *Shothahara* property of *shunti* and *chitraka* in *pippalyadichurna* relieves the reducing the *shotha*.

Rasayana: The *rasayana* and property of *pippali* and *chitraka* promote the *vyadhikshamatwa*.

On the modern parlance it can be concluded that *pippalyadi churna* acts by the following pharmacological activities of drugs of *pippalyadi churna*

Anti inflammatory action: Many of the ingredients of the *pippalyadi churna* possess the inhibitory activities on synthesis of prostaglandin and leukotriene. The "Piperine" major chemical constituent of *piperlongum* possesses inhibitory activities on prostaglandin and leukotrienes. The other chemical constituents like gingerol of *Zingiberofficinale*, and xanthone, root extract of *Plumbagozeylanica*, known for their anti-inflammatory effect. The reduction in tissue oedema helps to relieve the congestion.

Antimicrobials: Most of drugs in this *churna* having very well, gram positive and gram negative antibacterial action

Immuno modulatory action: Immuno modulatory effect of *Piper longum*, *Zingiberofficinale*, *Plumbagozeylanica*, has a major role, via modulation of T lymphocytes expression in a dose-dependent manner. It stimulates the T cells.

CONCLUSION:

The effectiveness of the *pippalyadi churna pratisarana* karma has proved good with reducing the signs & symptoms and avoiding the rate of recurrences significantly. Tonsils, the lymphoid tissue play an important role in maintaining immunity the timely treatment is most essential to avoid surgery and improve immunity. The *kshara* having *gunas* like *chedana* (incision), *bhedana* (bhedana) and *lekhana* (scraping) has avoided option of going for surgery by considerably reducing the condition regard to its symptomatology.

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CORRESPONDING AUTHOR

Dr. Santosh. Kumar

PG Scholar, Dept Of Shalakyta Tantra.
SKAMCH&RC, Bangalore, Karnataka, India
Email: darshubheem71212@gmail.com

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