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# A COMPARITIVE STUDY TO EVALUATE THE EFFICACY OF *YAVAKSHARADI GUTIKA MUKHA DHARANA* AND *TRIPHALA MADHU GANDUSHA* IN *TUNDIKERI* (CHRONIC TONSILLITIS)

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## ABSTRACT

**Background:** *Tundikeri* is a *mukharoga,* classified under *kantagata* and *talugata roga's* by *Acharya Vagbhatta* and *Sushruta* respectively, characterized by *Katina Sopha* in *hanusandhi* resembling *karpasa phala*, accompanied by *ruk in gala, toda* and *daha.* It has a close resemblance with Chronic Tonsillitis. As the chronicity and re-ocurrance rate of this disease is high and problem may be associated with life threatening complications like peritonsillar abscess, parapharangeal abscess, tonsiloliths, laryngeal oedema, acute otitis media and rheumatic fever. Hence timely management of this condition is the need of the hour. **Materials & Methods:** A randomised comparative clinical study was taken up, 40 patients fulfilling the criteria's of *Tundikeri* were selected from the OPD and IPD of department of *Shalakya Tantra*, Alva's Ayurveda Medical College & Hospital, Moodbidri. The patients were divided into two groups with 20 patients in each group. **Group A** was treated with *Yavaksharadi Gutika mukhadharana*, thrice daily for a period of 14 days. **Group B** was treated with *Triphala Madhu gandusha*, thrice daily for a period of 14 days. **Results:** The assessment of the efficacy of treatment was based on improvement in pain, *Galoparodha, Galaragata,* Size of tonsils and Size of Lymph nodes. The observations were made and results were statistically analysed. Percentage wise relief was found higher in Group B than Group A, but on statistical analysis both groups showed equal effect in subsiding the symptoms of the disease. **Discussion:** *Yavaksharadi Gutika* and *Triphala Madhu Gandusha* are effective formulations giving good results in the management of *Tundikeri* due to its *Tridoshahara, Shothahara, Srotoshodaka, deepana, anulomana* and *rasayana* property. **Conclusion:** On comparing the 't'values, Group A showed better effect on parameters-*Galoparodha* and size of tonsil. Whereas Group B showed better effect on pain and *Galaragata* and equal effect was seen on size of lymph nodes. Both *Yavaksharadi Gutika Mukhadharana* and *Triphala Madhu gandusha* have proved effective in the management of *Tundikeri (*chronic tonsillitis).

**Keywords:***Tundikeri*, Chronic Tonsillitis, *Yavaksharadi Gutika, Triphala madhu gandusha*.

**INTRODUCTION:** In *Ayurveda*, *Tundikeri* is described under *mukha roga*. *Acharya Sushrutha* has mentioned *tundikeri* as *talugata roga* and *Acharya Vagbhata* as *Kantagata roga*.

*Tundikeri* presents with the features of *Katina sopha* (enlargement of tonsils) in *hanusandhi*, *manda ruk* (pain), *Toda* (pricking sensation), *daha* (burning sensation) and resembles *karpasa phala*

[1,2](fruit of cotton). It is mainly caused due to vitiation of *kapha* and *raktha dosha*[3].

*Tundikeri* is commonly encountered nowadays due to the dietary habits of taking spicy food, cold beverages and cold climate. Lower socio-economical people are particularly prone as the immunity status is low in them. These factors coupled together results in recurrent episodes of the disease.

In modern science *tundikeri* can be co-related to tonsillitis. Tonsillitis is the infection of tonsils, situated on either side of back of throat, which forms vital part of immune system and aids the body in fighting diseases and infections. Tonsillitis is one of the most common diseases of upper respiratory tract which affects all age groups, particularly growing children with high prevalence and repeated episodes. If not treated in time, chronic tonsillitis may lead to middle ear infection, rheumatic fever, nephritis, rheumatic heart disease and many other systemic complications[4].

Antibiotics are the main stay of treatment in allopathic medicine which gives temporary relief and does not check the recurrence of disease and sets a platform for tonsillectomy, which has its own complications.

By considering the above facts there is a need to develop a treatment protocol which aims at reducing the symptoms as well as the recurrence rate and giving relief to the patient. Hence this study with *Yavaksharadi gutika mukhadharana*[5] and *Triphala Madhu gandusha*[6] was selected for the study.

## OBJECTIVES:

1. To evaluate the efficacy of *Yavaksharadi gutika* in the management of *Tundikeri.*
2. To evaluate the efficacy of *Triphala Madhu gandusha* in the management of *Tundikeri*.
3. To compare the efficacy of *Yavaksharadi gutika* and *Triphala Madhu gandusha* in the management of *Tundikeri*.

## MATERIALS & METHODS:

**Study Design:** Single blind randomised comparative clinical study.

**Sampling:** A total of 40 patients aged between 5 to 60 years were selected for the study from the outpatient department of Shalakya Tantra.

### Collection of Raw Materials:

All the raw drugs were collected from Alva's pharmacy Mijar & from Udupi and were certified for its genunity from the pharmacognostic department and medicine was prepared in Rasa Shastra & Bhaishajya Kalpana lab of Alva's Ayurveda Medical College, Moodbidri.

### Drug Review

### *1. TRIPHALA MADHU GANDUSHA*[7]

Ingredients of the drugs used in Triphala Madhu gandusha preparation with their proportion.

a. *Triphala(Hareetaki,Vibhitaki,Amalaki)* - 5gms(1 kola)
b. *Madhu* - Q.S

**Table No.1: Showing ingriedients of Triphala Madhu Yoga**

| Sl.No. | *Dravya* | Latin Name | Part Used |
|---|---|---|---|
| **1.** | *Hareetaki* | *Terminalia chebula* | Fruit |
| **2.** | *Vibheetaki* | *Terminalia bellirica* | Fruit ,seed, seed kernel |
| **3.** | *Amalaki* | *Embilica Officinalis* | Fruit, Fruit pulp |

## 2. *YAVAKSHARADI GUTIKA*[8]

**Table No.2: Showing ingriedients of Yavaksharadi Gutika.**

| Sl.No | *Dravya's* | Latin Name | Part Used | Proportion |
|---|---|---|---|---|
| **1.** | *Yavakshara* | *Hordeum Vulgare.* | Whole plant | 1Part |
| **2.** | *Tejovati* | *Zanthoxylum alatum roxb.* | Stem, Bark | 1 Part |
| **3.** | *Patha* | *CissampelosPariera* | Root | 1Part |
| **4.** | *Rasanjana* | *Berberis aristata* | Kanda | 1 Part |
| **5.** | *Daruharidra* | *Berberis aristata* | Kanda | 1Part |
| **6.** | *Pippali* | *Piper longum* | Fruit | 1 Part |

***Madhu*:** *Madhu* is used as an important *dravya* in many *Ayurvedic* preparations.

It is the most common adjuvant as it has the property of *yogavahi*(catalytic).

### Method of Preparation:

### Preparation of *Yavakshara*[9]

- Raw drug (13kg) was dried (5kg) and burnt into ashes (900gms).
- 900gms of ash was taken and to this 5400ml of water was added (i.e. 6parts of water) and soaked for 1 night.
- Next day it was filtered for 21 times using a cora cloth.
- The filterate obtained was kept for boiling on *mandagni*.
- When the filterate became clear and *picchila*, then it was filtered again.
- Then the filterate was kept for boiling on *mandagni* till the water portion evapourates and *kshara* is obtained.

### Preparation of *Rasanjana*[10]

- 1000gms of *daruharidra* coarse powder was taken in a vessel.
- 8000ml of water was added to this.
- *Kwatha* was prepared by keeping it on *mandagni* continuously and reducing it till 1/4$^{th}$ of water remains.
- Prepared *kwatha* was filtered with cora cloth.
- The filterate was placed on *mandagni* and continuously stirred to achieve thick consistency.
- The prepared *rasakriya* was taken in a plate and dried.

### Preparation of *Yavaksharadi Gutika*

- All the ingredients mentioned below was collected and made into fine powder.
- 70gms of each ingredient was taken in a bowl and mixed properly and honey was added and made into paste.
- This paste was rolled into pills each weighing about 500mg.

### Preparation of *Triphala Yoga*

- *Hareetaki*,*amalaki* and *vibheetaki* were taken in equal quantity in dry form and was powdered to obtain *triphala churna*.
- *Triphala kashaya* was prepared in the ratio 1:8 and reduced to half.
- Q.S of *madhu* was added to Luke warm *kashaya* and was administered for *gandusha*.

### INCLUSION CRITERIA:

1. Patients presenting with classical features of *Tundikeri* (Chronic Tonsillitis).
2. Patients between the age group of 5 to 40 years.

3. Irrespective of sex, religion and occupation.

**EXCLUSION CRITERIA:**

1. Patients with Peritonsillar abscess, Tonsillar cyst and Tonsillolith will be excluded.
2. Patients associated with any other Systemic complications.
3. Patients with symptoms of Acute Tonsillitis

**INTERVENTION:**

**Table No.3: Plan of Intervention.**

| GROUP | CHIKITSA | DOSAGE | Mode of administration | PRAYOGA AVADHI |
|---|---|---|---|---|
| A | *Yavaksharadi Gutika.* | 250-500mg | *Mukha Dharana* | 1 tab thrice a day for 14 days. |
| B | *Triphala Madhu gandusha.* | Q.S | *Gandusha* | Three times daily for 14 days. |

- *Pathya apathya* was strictly advised for both the groups.

**Observation Period:**

During Treatment-Once in a week for 14 days. (0,7,14)

After Treatment- Once in 15 days for a period of 30 days.

Total study duration- 45 days.

**Assesment Parameters**

Both subjective and objective parameters were assessed.

- **Subjective Parameters** are *Ruk in Gala* (Mild Pain), *Galoparodha* (Difficulty in Swallowing), *Mukha Daurgandhya*(Halitosis)
- **Objective Parameters** are *Ragata in Gala*(Congestion), Size of the Tonsils, Size of Lymph Nodes, Pictorial Presentation.

**GRADINGS:**

**Table No.4: Grading's for Pain.**

| **SCORING** | **CRITERIA** |
|---|---|
| **Grade 0** | No pain |
| **Grade 1** | Pain on external pressure |
| **Grade 2** | Pain during deglutition and relieves thereafter |
| **Grade 3** | Pain increases on deglutition and remains consistent |

**Table No.5: Grading's for Dysphagia.**

| **SCORING** | **CRITERIA** |
|---|---|

| | |
|---|---|
| **Grade 0** | No pain while swallowing. |
| **Grade 1** | Pain during swallowing solid food substance. |
| **Grade 2** | Pain during swallowing semi-solid food substance. |
| **Grade 3** | Pain during consuming liquid food substance. |
| **Grade 4** | Continuous pain or unable to swallow. |

**Table No.6: Grading's for Hyperaemia**

| SCORING | CRITERIA |
|---|---|
| **Grade 0** | No hyperaemia |
| **Grade 1** | Hyperaemia of tonsil surface. |
| **Grade 2** | Pinkish appearance of pillars |
| **Grade 3** | Reddish appearance of surroundings |
| **Grade 4** | Reddish appearance of pharynx. |

**Table No.7: Grading's for halitosis.**

| SCORING | CRITERIA |
|---|---|
| **Grade 0** | No halitosis |
| **Grade 1** | Foul breathe experienced by patient only. |
| **Grade 2** | Foul breathe experienced by patient and friends/parents. |
| **Grade 3** | Foul breathe experienced by a group of surrounding people. |
| **Grade 4** | Foul breathe experienced by as soon as the patient opens the mouth. |

**Table No.8: Grading's for Size of Tonsils.**

| SCORING | CRITERIA |
|---|---|
| **Grade 0** | No tonsils seen (post tonsillectomy) |
| **Grade 1** | Small tonsils within the tonsillar fossa. |
| **Grade 2** | Visible beyond anterior pillars. |
| **Grade 3** | Extended 3/4$^{th}$ of way to midline. |
| **Grade 4** | Completely obstructing airway.(kissing tonsils) |

**Table No.9: Grading's for Size of Lymph Nodes.**

| SCORING | CRITERIA |
|---|---|
| **Grade 0** | No palpable lymph nodes. |
| **Grade 1** | Palpable lymph node U/L ,warm |
| **Grade 2** | Palpable lymph nodes B/L, soft fluctuant. |
| **Grade 3** | Palpable lymph nodes B/L which are hard |
| **Grade 4** | Palpable lymph nodes B/L with tenderness. |

**RESULTS:** The randomly selected 20 patients in each group were treated for a period of 14 days and then followed for a period of 30 days with a gap of 15 days. The obtained data from both the groups before, during and after the clinical study were expressed as mean, standard deviation and standard error. The values

obtained were subjected to Students paired't' test to compare the mean values within the groups and Students unpaired 't' test to compare the mean values between the groups. The differences in the mean values were considered highly significant at $p<0.001$ and $p<0.01$, significant at $p<0.05$ and insignificant at $p>0.05$.

**Table No.10: Assessment of parameters in Group A after treatment (14 th day)**

| Sl.No. | Parameter | Mean BT | Mean AT | % of Improvement | SD | SE | T | P |
|---|---|---|---|---|---|---|---|---|
| 1. | Pain | 1.9 | 0.80 | 57.8% | 0.410 | 0.0918 | 6.465 | <0.001 |
| 2. | Dysphagia | 1.60 | 0.50 | 68.75% | 0.513 | 0.115 | 15.983 | <0.001 |
| 3. | Hyperaemia | 1.750 | 0.45 | 74.2% | 0.605 | 0.135 | 8.850 | <0.001 |
| 4. | Size of Tonsils | 2.30 | 1.15 | 50% | 0.366 | 0.081 | 14.038 | <0.001 |
| 5. | Size of Lymph Node | 0.60 | 0.05 | 91.6% | 0.224 | 0.05 | 4.819 | <0.001 |

**Table No.11: Assessment of parameters in Group B After treatment (14th day)**

| Sl.No. | Parameter | Mean BT | Mean AT | % of Improvement | SD | SE | T | P |
|---|---|---|---|---|---|---|---|---|
| 1. | Pain | 1.75 | 0.10 | 94.2% | 0.308 | 0.068 | 11.00 | <0.001 |
| 2. | Dysphagia | 1.50 | 0.20 | 86.6% | 0.410 | 0.0918 | 12.365 | <0.001 |
| 3. | Hyperaemia | 2.00 | 0.20 | 90% | 0.410 | 0.091 | 9.20 | <0.001 |
| 4. | Size of Tonsils | 2.00 | 0.40 | 80% | 0.503 | 0.112 | 11.961 | <0.001 |
| 5. | Size of Lymph Node | 0.60 | 0.05 | 91.6% | 0.224 | 0.05 | 4.819 | <0.001 |

**PAIN:** In Group A 57.8% patients found relief & in Group B 94.2% patients found relief. These results show that both the treatments were effective in treating pain but Group B was comparatively more effective than Group A.

**DYSPHAGIA:** In Group A 68.75% patients found relief & in Group B 86.6% patients found relief. These results show that both the treatments were effective in treating dysphagia but Group B was comparatively more effective than Group A.

**HYPERAEMIA:** In Group A 74.2% patients found relief & in Group B 90% patients found relief. These results show that both the treatments were effective in treating hyperaemia but Group B was comparatively more effective than Group A.

**SIZE OF TONSILS:** In Group A 50% patients found relief & in Group B 80% patients found relief. These results show that both the treatments were effective in reducing the inflamed tonsils but Group B was comparatively more effective than Group A.

**SIZE OF LYMPH NODES**

In Group A 91.6% patients found relief & in Group B 91.6% patients found relief. Hence the results showed that both the treatments were equally effective in decreasing the enlarged lymph nodes.

**Table No.12: Assessment of parameters in Group A after 1st follow up (on 30th day)**

| Sl.No. | Parameter | Mean BT | Mean AT | % of Improvement | SD | SE | T | P |
|---|---|---|---|---|---|---|---|---|
| 1. | Pain | 1.9 | 0.50 | 73.6% | 0.513 | 0.115 | 7.628 | <0.001 |
| 2. | Dysphagia | 1.60 | 0.20 | 87.5% | 0.410 | 0.091 | 12.457 | <0.001 |
| 3. | Hyperaemia | 1.75 | 0.15 | 91.4% | 0.489 | 0.109 | 10.514 | <0.001 |
| 4. | Size of Tonsils | 2.30 | 0.90 | 60.8% | 0.308 | 0.068 | 12.457 | <0.001 |
| 5. | Size of Lymph Node | 0.60 | 0.00 | 100% | 0.00 | 0.00 | 4.485 | <0.001 |

**Table No.13: Assessment of parameters in Group B after 1st follow up (on 30th day)**

| Sl.No. | Parameter | Mean BT | Mean AT | % of Improvement | SD | SE | T | P |
|---|---|---|---|---|---|---|---|---|
| 1. | Pain | 1.75 | 0.00 | 100% | 0.00 | 0.00 | 12.254 | <0.001 |
| 2. | Dysphagia | 1.50 | 0.00 | 100% | 0.00 | 0.00 | 13.077 | <0.001 |
| 3. | Hyperaemia | 2.00 | 0.00 | 100% | 0.00 | 0.00 | 11.25 | <0.001 |
| 4. | Size of Tonsils | 2.00 | 0.15 | 92.5% | 0.366 | 0.081 | 12.33 | <0.001 |
| 5. | Size of Lymph Node | 0.60 | 0.00 | 100% | 0.00 | 0.00 | 4.485 | <0.001 |

**Follow up on 30th day:** During treatment and during follow up period, patients were attributed for strict observance of diet.

During treatment and follow up period there was no adverse effect of the drugs noted. There was additional effect of the medicines as it enhanced appetite and relieved constipation.

On the 30th day of follow up there was no re-occurrence of the disease seen in the patients.

**Discussion on mode of action of drug:**

In the present study *tundikeri* was treated with *yavaksharadi gutika* in the form of chewable tablets and *triphala madhu* was given for gargling.

***Yavaksharadi Gutika*:**

*Yavaksharadi Gutika* has been explained in Bhaishajya ratnavali in the context of *mukha rogas.*

- The contents of *Yavaksharadi gutika* are *Yavakshara, Tejovathi, Pata, Daruharidra, Rasanjana, Pippali, Madhu,* possess qualities like *lekhana, shothahara and kapha-raktha hara*
- *Yavakshara* is *shothahara, vedanahara, amapachaka* and by its *lekhana guna* it scrapes the vitiated *kapha dosha*.It possess

the *Ksharana* and *Shodana* quality which reduces the obstructive lesions in throat.

- *Tejovati* is *jwaraghna, vedanahara, amapachaka* and helps in reducing the pain and does *dosha shamana*.
- *Pata* has *jwaraghna, vedanahara* and *shodaka* property.
- *Daruharidra* is *shothahara* by which it helps to reduce the inflammation of the tonsils and also its antibacterial property reduces the infective condition.
- *Rasanjana* is the extraction of *daruharidra* which has *ruja nashana* property.
- *Pippali* has the property of *shulaprashamana, krimighna, jwaraghna, and deepana,* which reduces the inflammatory changes in the oral mucosa and tonsils.Piperine which is the main alkaloid in the drug possess analgesic, antimicrobial, antipyretic properties which helps to reduce pain and inflammation.By its *madhura vipaka* it acts as *balya and rasayana* and increases the immunity.
- *Madhu(*honey) has the properties of *yogavahi, shodhana, vishagna* and *kasaghna*. By its *laghu* and *ruksha guna* it does *kapha* and *pitta shamana*.

***Triphala Madhu Yoga:***

- The ingredients are *Triphala (Hareetaki, Vibhitaki, Amalaki*) and *Madhu*, which does the *Kapha* and *Raktha shaman*, and acts as *dosha pratyanika chikitsa* in *Tundikeri*.
- *Triphala* has the properties of *kapha and pitta-hara.*
- *Madhu*(honey) has the properties of *yogavahi, shodhana, vishagna* and *kasaghna*. By its *laghu* and *ruksha guna* does *kapha and pitta shamana*.

**Probable mode of action of *Gandusha* Procedure:**

- It acts as a good oral cleansing method and helps to improve or regain the oral hygiene.
- *Gandusha* increases the local defence mechanism of the oral cavity and helps to regain oral hygiene.
- The warm medicated liquid irritates the oral mucosa and increases vascular permeability, thereby increasing the drug absorption both locally and systematically which helps reducing inflammation.

## CONCLUSION

*Tundikeri* is a *kapha-raktha* predominant disease which can be compared with chronic tonsillitis. On statistical analysis, both *Yavaksharadi Gutika* and *Triphala Madhu Gandusha* were effective formulations, which showed highly significant results in all the cardinal & associated features of *Tundikeri*.

## REFERENCES:

1.Astanga hrudaya of vagbhata, with commentaries sarvangasundari of arunadatta and Ayurveda rasayana of hemadari, edited by bhisagacharya Hari sadashiva sastri paradakara, chowkhamba surbharati prakashan Varanasi, Edition-2010, uttarasthana 21st chapter,47th verse,pp849.

2. Sushrutha Samhita of susruta, with the Nibandhasangraha commentary of sri dalhanacharya and the Nyaya Chandrika of sri gayadasacharya on nidanasthana, edited by Vaidya yadavji trikamji Acharya and Narayan ram Acharya kavyatirtha, chaukambha Sanskrit sansthana, Varanasi, Edition-2012, Nidhanasthana, 16th chapter, 42 verse,pp287.

3.Bhavaprakasha of Bhava Mishra(vol-2) Uttara and madhyama khanda, Translated by Prof.K.R. Srikantha Murthy.Edition-2009, 66th chapter,100th verse,pp665.

4. Diseases of Ear, Nose and Throat and head and neck surgery by PL Dhingra, 6th edition.
5. Bhaishajya Ratnavali of sri govinda dasji, edited by bhisagratna Shri Brahma Shankar Mishra, commented upon by shri kaviraj ambikadatta shastri, Ayurvedacharya, English translation by Dr. kanji lochan, chowkambha Sanskrit Sansthan, Varanasi, Edition-2009, vol-3, 61st chapter,75 verse,pp213.
6. Sharngadhara Samhita of sarngadharacharya Sanskrit Text with English Translation by Dr. G. Prabhakar Rao, Chaukambha Publications New Delhi, Edition-2013, Uttara Khanda, 10th chapter, verse 12,pp234.
7. Sharngadhara Samhita of sarngadharacharya Sanskrit Text with English Translation by Dr. G. Prabhakar Rao, Chaukambha Publications New Delhi, Edition-2013, Uttara Khanda, 10th chapter, verse 12,pp234.
8. Bhaishajya Ratnavali of sri govinda dasji, edited by bhisagratna Shri Brahma Shankar Mishra, commented upon by shri kaviraj ambikadatta shastri, Ayurvedacharya, English translation by Dr. kanji lochan, chowkambha Sanskrit Sansthan, Varanasi, Edition-2009, vol-3, 61st chapter,75 verse,pp213.
9. Sushruta: Sushruta Samhita Sri Dalhanacharya Edited by Vaidya Jadavji Trikamji Acharaya Chaukhambha Orientalia , Varanasi, Edition 2009 sutrasthana, 11th Chapter,Verse 13,pp47.
10. Sharngadhara Samhita of sarngadharacharya Sanskrit Text with English Translation by Dr. G. Prabhakar Rao, Chaukambha Publications New Delhi, Edition-2013, Madhyama Khanda, 8th chapter, verse 1,pp111.

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