



Review Article

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A REVIEW STUDY ON TUNDIKERI WITH SPECIAL REFERENCE TO TONSILLITIS

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ABSTRACT

Tundikeri means the disease or Shotha (inflammation), which occur like that of cotton fruit. Symptoms of Tundikeri are more similar to tonsillitis like Toda (pain), Shotha and Prapaka (suppurative inflammation). Tonsillitis is a common illness in childhood resulting from pharyngitis. About 30 million children develop tonsillitis with frequent exposure to bacterial and viral infections. Any infection in a growing child usually hampers the immune system and also the routine growth and development, when there is a repeated attack, it is seen more. This leads to obstruction in the throat both to airways as well as digestive tract. Apart from medical management with antibiotics, surgical removal is the only other option remaining; around 200,000 tonsillectomies are done annually in India. Present study is aimed to highlight the effective role of Ayurvedic medicines i.e. Hastishundi, Kalaka churna, Marichyadi Churna, Tundikerihara Vati, Kanchnar Guggulu tablet and Tankan-Madhu Pratisarana. Till date total four clinical researches have been carried out in the subject of Tundikeri at IPGT & RA, Jamnagar. Assessment was done on the subjective and objective parameters after completion of treatment. The data obtained in clinical studies was analysed by using suitable statistical tests. The trial drugs were found to be effective both on general and local symptoms as well as on associated symptoms.

Key words: Hastishundi, Kalaka Churna, Kanchnar Guggulu, Tonsillitis, Tundikeri

INTRODUCTION

Tundikeri means the disease or Shotha (inflammation), which occurs like that of cotton fruit.¹ Symptoms of Tundikeri are more similar to tonsillitis like Toda (pain), Daha (burning sensation) and Prapaka (suppurative inflammation).² Tonsillitis is a common illness in childhood resulting from pharyngitis. About 30 million children develop tonsillitis with frequent exposure to bacterial and viral infections. Any infection in a growing child usually hampers the immune system and also the routine growth and development, when there is a repeated attack, it is seen more. This leads to obstruction in the throat both to airway as well as digestive tract. Apart from medical management with antibiotics, surgical removal is the only other option remaining; around 200,000 tonsillectomies are done annually in India. These antibiotics and NSAIDs lead to GI tract disturbance and surgical removal affects immune system. So there is a need of hour to look out other traditional medicine

system for management of Tundikeri. *Ayurveda* has a variety of natural medication in the treatment of Tundikeri and these recipes are free from above mentioned GIT complications and rather safe in use. Also one pilot study was carried out on Kumarabharana Rasa at Shri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan,³ which got significant result. Present study is aimed to highlight the effective role of Ayurvedic medicines i.e. Hastishundi, Kalaka churna, Marichyadi Churna, Tundikerihara Vati, Kanchnar Guggulu tablet and Tankan-Madhu Pratisarana. Till date total four clinical researches have been carried out in the subject of Tundikeri at IPGT & RA, Jamnagar.

Details of research works on Tundikeri: Till date a total of 4 research works have been carried out on Tundikeri in Shalya - Shalakya, Kaumarbhritya and Dravyaguna department, IPGT & RA, GAU, Jamnagar. Details are given in Table 1. Details of intervention are given in Table 2.

Table 1: Details of clinical research works on Tundikeri at I.P.G.T. & R.A., Jamnagar

Study Number	Name of Researcher	Year	Number of patients registered
1	Baldev Singh	1990	30
2	Uma Pandey	1994	60
3	Ram Babu Paswan	2007	28
4	Tarak Adhvaryu	2014	31

Table 2: Details of intervention of four research works

Study Number	Name of Researcher	Number of Groups	Details of intervention
1	Baldev Singh ⁴	3	<p>Group 1- Tundikerihara Vati 1.5 gm daily in three divided doses orally with Luke warm water for one month.</p> <p>Group 2- Marichyadi Churna⁵ with honey for Pratisarana three times daily for one month.</p> <p>Group 3- Combined therapy of Group 1 & Group 2</p>

2	Uma Pandey ⁶	4	Group I- Wheat powder capsule of 1 gm orally three times daily for one month. Group II- Kalaka Churna ⁷ 1 gm with honey orally three times daily for one month. Group III- Kalaka Churna 1 gm with honey for Pratisarana three times daily for one month. Group IV- Combined therapy of Group II & Group III for one month.
3	Ram Babu Paswan ⁸	2	Group A- Hastishundi (Heliotropium indicum Linn.) Ghanvati 2 tab. of 500 mg thrice daily in adult and 1 tab. of 500 mg thrice daily in children with Luke warm water for two weeks. Group B- Hastishundi (Heliotropium ovalifolium) Ghanvati 2 tab. of 500 mg thrice daily in adult and 1 tab. of 500 mg thrice daily in children with Luke warm water for two weeks.
4	Tarak Adhvaryu ⁹	2	Group A- Kanchanara Guggulu ¹⁰ with Luke warm water two times after meal for 6 weeks. Group B- Kanchanara Guggulu with Luke warm water two times after meal for 6 weeks and three sittings (each sitting for one week) of Tankana Madhu Pratisarana ¹¹ two times daily.

Drugs: All the Ayurvedic trial drugs were prepared in the pharmacy of Gujarat Ayurved University, Jamnagar and pharmacognostical and analytical studies were done in laboratories of I.P.G.T. & R.A., G.A.U., Jamnagar.

Investigations: Routine hematological (TLC, DLC, Hb%, ESR, AEC), urine routine & microscopic, stool routine & microscopic and blood sugar level analysis were carried out before and after treatment for the assessment.

Scoring pattern

Subjective & objective criteria: The improvement in patients was assessed on the basis of relief in the signs and symptoms like Toda, Shotha, Daha, Prapaka, Recurrence attack of sore throat, dysphasia, redness in mucus membrane, raised temperature, enlarged tonsils, enlarged lymph node, halitosis, pricking pain.

Overall assessment: An assessment scale was made to assess the rate of improvement. At the end of treatment, the results in view of percentage of relief were classified.

Statistical estimation of results: The obtained data were analyzed statistically. The values were expressed as percentage of relief and Standard Error Mean. The data were analyzed by paired ‘t’ test. Unpaired ‘t’ test was applied for comparative study.

DISCUSSION

Baldev Singh et. al (1990) in his study (n=30) reported that Group 3 i.e. Tundikerihara Vati along with Marichyadi Churna - Madhu Pratisarana showed better result in cardinal and associated sign and symptoms. Statistically highly significant (p<0.001) result was found in Group 3 in almost all cardinal and associated sign and symptoms in comparison to Group 1 (i.e. Tundikerihara Vati) and Group 2 i.e. (Marichyadi Churna Pratisarana).

Uma Pandey et. al. (1994) in her study (n=60) reported that Group IV i.e. combined therapy of Kalaka Churna orally and locally showed better result in cardinal and associated symptoms and hematological value. Statistically highly significant result was found (p<0.001) in Group IV than Group I (Wheat powder capsule), Group II (Kalaka Churna Orally) Group III (Kalaka Churna locally).

Ram Babu Paswana et. al. (2007) in his study reported that Group B (H. ovalifolium) showed better result than Group A (H. indicum). Statistically highly significant result was found in almost all the cardinal and associated sign and symptoms and in hematological values.

Tarak Adhvaryu et. al. (2014) in his study reported that Group B showed better percentage of relief in comparison to group A in almost all cardinal and associated features of the disease Tundikeri. Highly significant result(p<0.001) was obtained in

cardinal and associated symptoms in both Groups i.e. Group A (Kanchanar Guggulu) and Group B (Kachnar Guggulu along with Tankana Madhu Pratisarana) but percentage wise better results was obtained in Group B in particular sign and symptoms. Non significant result was obtained in hematological and culture examination in both Groups.

Table 3: Overall effect of therapy in the study of Baldev Singh et al.

Assessment	Group 1 (%)	Group 2 (%)	Group 3 (%)
Cured	40.00	50.00	60.00
Improved	40.00	40.00	30.00
Unchanged	20.00	10.00	10.00

Table 4: Overall effect of therapy in the study of Uma Pandey et al.

Assessment	Group I (%)	Group II (%)	Group III (%)	Group IV (%)
Cured	00	53.33	40.00	66.67
Markedly improved	06.67	26.67	40.00	26.67
Improved	13.33	20.00	20.00	6.67
Unchanged	80.00	00	00	00

Table 5: Overall effect of therapy in the study of Ram Babu Paswan et al.

	Group A(%)	Group B(%)
Complete relief	00	20.00
Marked relief	100	70.00
Moderate relief	00	10.00
No relief	00	00

Table 6: Overall effect of therapy in the study of Tarak Adhvaryu et al.

	Group A(%)	Group B(%)
Complete relief	21.43	25.00
Marked relief	42.86	58.33
Moderate relief	35.71	16.67
Mild relief	00	00
No relief	00	00

The mode of action of any Ayurvedic drug is based on Samprapti Vighatana (breaking of pathogenesis) of that particular disease. Samprapti Vighatana is said to be the only line of treatment. To understand the mode of action of drug we have to think upon Samprapti Ghataka (pathogenic factors) and how drug breaks the chain of that Samprapti. Tundikeri is Jatharagnimandhya Janita Vikara (disease occurs due to digestive enzymes or fire) and occurs mostly in Rutu Sandhikala (inter seasonal period). At that time Agnimandhya (dyspepsia) take places and Aam (metabolic toxins) formation occurs. According to Acharya Sushruta and Acharya Vagbhatta, Tundikeri occurs by Kapha Prakopa (cough outbreak) and Rakta Dushti (vitiation of blood)¹² which further lead to Srotorodha (obstruction in channels) and Shotha arises. At Talu (palate) and

Kantha Pradesh (throat region) Kleda Vriddhi (increased dampness) occurs due to Aam and Kapha Prakopa. Rakta Dushti also causes Daha and Paka.

Probable mode of action of Tundikeri hara Vati and Marichyadi Churna

Majority of the ingredients of Tundikeri hara Vati have Katu (pungent), Tikta (bitter), Kashaya (astringent) Madhura Rasa (sweet taste) and Ushna Virya (hot potency) which decreases aggravated Kapha and Pitta.

Ingredients of Marichyadi Churna alleviate Kapha through Katu, Tikta, Kashaya Rasa and Ushna Virya and decreases aggravated Pitta and Rakta by Madhura and Tikta Rasa.

Probable mode of action of Kalaka Churna

Katu, Tikta Kashaya Rasa and Ushna Virya work as Deepana-Pachana (improves digestive strength and relieves Aam) and also decreases aggravated Kapha. Shamana of Prakupita Pitta and Rakta cause by Sheeta Guna and Tikta, Madhura Rasa Dravya of the Yoga. Kalaka Churna also has Shoshana (emaciation) property which dries up the Kleda and Kapha and its Lekhana (scrapping) property cleans the channels and thus relives Srotorodha.

Probable mode of action of Hastishundi

In disease Tundikeri mainly there will be vitiation of Kapha and Rakta. Hastishundi due to its Tikta, Kashaya Rasa, Katu Vipaka, Laghu Ruksha, Guna acts as Agnidipaka and also Amapachaka and Kaphahara. Tikta Rasa and Laghu, Ruksha Guna help in reducing the aggravated Pitta as well Rakta to normalcy thus helps in bringing down Shotha, Toda, Daha thereby giving relief to patients. Because of its Laghu, Ruksha Guna, and Tikta, Kashaya Rasa, it subside the aggravated Kapha.

Probable mode of action of Kanchnara Guggulu and Tankana Madhu Pratisarana

Kanchnara Guggulu settles the vitiated Kapha and Rakta which are the causative factors for Tundikeri. Hence it is effective in the disease Tundikeri. Kanchnar Guggulu has Shothahara property so it falls down the inflammation of tonsils. Due to its Ushna Virya and Laghu, Ruksha Guna (anti-inflammatory property) it stimulates the Agni. Due to Tikta, Kashaya Rasa, Laghu, Ruksha Guna, Kanchnar Guggulu subsides the aggravated Kapha Dosh. ¹³ And due to Ushna Virya it subside Vata and Kapha Dosh. ¹⁴ Due to Tikta, Kashaya and Madhura Rasa it subsides Pitta Dosh.

It is said that Rasa acts when it comes to the contact with mouth, Vipaka (post digestive effect) acts after digestion and Virya acts at both level internally and externally. ¹⁵ So, Rasa and Virya of the drug are more considered for the mode of action of Pratisarana drug. Tankan has Katu Rasa, Ushna Virya and Ruksha, Tikshna Guna. Madhu (honey) has Madhura, Kashaya Rasa, Laghu, Ruksha Guna, Sheeta Virya and Madhura Vipaka. Madhu also has Yogavahi (acts as a catalyst) Property so it acts as a Sahapana (vehicle) of Tankana. Tankan-Madhu Pratisarana is indicated in Mukhapaka(stomatitis), it reduces Daha, Shotha etc. conditions. ¹⁶ Due to the Lekhana property it corrodes the hypertrophied muscle tissue and due to its Katu Rasa it "Shonita Sanghatam Bhinatti"¹⁷ (it clears the obstruction in Rakta vaha Srotas). Due to its Ruksha Guna it has Kledahara property. ¹⁸

CONCLUSION

The disease Tundikeri described in Ayurvedic classics has close similarity with tonsillitis. Tonsillitis is a very common illness found in childhood. Tundikeri is described as Kapha-Raktaja

dominant condition. Here, Ayurvedic treatment has a specific utility in the management of Tundikeri.

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