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Review Article

Ayurvedic Management Drugs for Tonsillitis W.S.R. to Tundikeri

Dr. Ashok Kumar Pushkar¹, Dr. Rakesh Kumar Nagar², Dr. Prabhakar Vardhan³, Dr. Shraddha Kumawat⁴, Dr. Savita Pushkar⁵

¹MD Scholar, Department of Kaumarbhritya, National Institute of Ayurveda, Deemed University (De-novo), Jaipur, Rajasthan

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ABSTRACT

Introduction: The tonsils, which are found towards the back portion of the throat, are inflamed and infected, leading to chronic tonsillitis, a prolonged illness. In the first few years of life, it has a high morbidity rate among the largest number of children. These tonsils are part of the immune system and fight off infections. The main cause is usually a bacterial or viral infection, which can be transmitted through respiratory droplets or recurrent acute tonsillitis. There are different types of tonsillitis, including acute tonsillitis, chronic tonsillitis, and recurrent tonsillitis. Chronic tonsillitis can last for months or even years, and acute tonsillitis is a short-term illness that lasts for a few days or weeks. Multiple episodes of tonsillitis during the year are referred to as recurrent tonsillitis. Common symptoms of chronic tonsillitis include persistent sore throat, difficulty swallowing, swollen tonsils, bad breath, and tender lymph nodes in the neck. Some individuals may also experience recurring episodes of fever and fatigue. Parents avoid surgery due to side effects, causing chronic and vulnerable tonsillitis, and leading to systemic complications. The disease *Tundikeri*, which is described in Ayurvedic texts and has similarities to tonsillitis, is believed to occur due to *Kapha Prakopa* and Rakta *Dushti*, leading to obstruction in the throat and increased dampness in the palate and throat region. Ayurvedic books provide various treatments for tonsillitis, including surgical intervention (*Bhedana*) with the *Mandalagra* instrument. The study explores herbal remedies for chronic tonsillitis treatment, evaluating usage and reducing tonsillectomy needs using classical sources and recent research.

Aim: To find out drugs for Ayurvedic Management of Tonsillitis / Tundikeri and their properties.

Objective:- To find out Ayurveda formulations and their internal, and external applications in tonsillitis.

1. INTRODUCTION

Tonsillitis is one of the most frequent illnesses that cause morbid conditions during seasonal changes in the majority of young children. Tonsillitis is an inflammation of the palatine tonsils, one on each side of the throat on the back side. The tonsils act as an important component of the immune system to prevent diseases and infections.

Corresponding Author:
Ashok Kumar Pushkar, MD Scholar,
Room no.224, Department of Kaumarbhritya,
National Institute of Ayurveda, Amer Road,
Jaipur, Pin code 302002
Email: drashokpushkar131@gmail.com

Chronic tonsillitis has a global frequency of 4 to 15%; according to various authors, accounts for 23.7 percent of all pharyngeal disorders. Any infection usually hampers the development of the immune system and a child's growth and development. When the attack occurs frequently, it becomes more noticeable. As a result, the digestive system and the throat's airways become blocked. This leads to a constant infection of the tonsils.

This disease is known as chronic tonsillitis. It is especially common in children. A peritonsillar abscess is a painful complication of the tonsils that is caused by inflammation of the tonsils and spreads to the surrounding tissue. Swallowing, opening the mouth, and breathing may be difficult. Recognizing the symptoms is very important for immediate treatment. Tonsillitis can cause middle ear infection, ear pain, hearing loss, and fever. Tonsillitis is often caused by strep, a highly contagious virus, but can also be caused

²Associate Professor, Department of Kaumarbhritya, National Institute of Ayurveda, Deemed University (De-novo), Jaipur, Rajasthan

³Associate Professor, Department of Shalakya Tantra, National Institute of Ayurveda, Deemed University (De-novo), Jaipur, Rajasthan

⁴MD Scholar, Department of Kaumarbhritya, National Institute of Ayurveda, Deemed University (De-novo), Jaipur, Rajasthan

⁵MS Scholar, Department of Shalakya Tantra, National Institute of Ayurveda, Deemed University (De-novo), Jaipur, Rajasthan

by allergies or irritants. Other viruses include influenza, adenovirus, and herpes simplex. Tonsillitis causes a sore throat that ranges from mild discomfort to severe pain, redness and swelling of the tonsils, white or yellow spots, loss of appetite, headache, fever, and fatigue. It can also cause swelling and tenderness in the lymph nodes in the neck. Medical practice is the treatment of health problems with non-invasive treatments, such as antibiotics, to benefit patients and prevent the development of antibiotic resistance. A tonsillectomy is an extreme treatment for the illness. In most cases, parents avoid surgery for fear of side effects, and the recurrence of tonsillitis makes tonsillitis chronic and vulnerable. Several health problems, such as laryngeal edema, hoarse voice, acute otitis media, angina pectoris, rheumatoid fever, and rheumatoid arthritis, are generally considered systemic complications. Tundikeri mentioned in Ayurveda classics is a similar disease condition in origin, signs, and symptoms to Tonsillitis. Tundikeri is described in Sushruta Samhita's Mukharoga Nidanasthan and Mukharoga Chikitsasthan under chapters 16th and 22nd, respectively. It is mentioned in the Ayurvedic texts Madhava Nidan, Astang Samgraha, and Astang Hridaya. The disease Tundikeri presents as swelling, caused by Kapha and Rakta with pricking pain, burning sensation, and suppuration. According to Acharya Sushruta, the swelling at the jaw joint in the throat, resembling Karpasa fruit (cotton), sticky, slightly painful, and hard to the touch is called *Tundikeri*. The causes identified by Acharya Vagabhatta as contributing to *Tundikeri* include excessive consumption of foods such as fish, buffalo, and boar meat, uncooked Mulaka (reddish), sleeping on one's back (Avak Shayya), inadequate dental care (Dwishato Dantadhavana), poor Dhumapana (Dhuma), improper vomiting (Chhardana), improper gargling, and improper venesection (Siravyadha). Its signs and symptoms are Toda (Pricking pain), Shopha (Enlarged tonsils), Daha (Burning sensation), and Prapaka (Inflammation). Treatment for tonsillitis is limited due to antibiotic resistance, frequent attacks, and adverse side effects. Collaborating with healthcare providers and exploring alternative therapies, such as Ayurveda, can help address these issues. By exploring alternate treatments and preventative methods for individualized Tundikeri care using Doshika predominance, symptoms, and signs from Ayurveda. Ayurveda offers various treatments options for tonsillitis, including Bhedana and Chhedana using the Mandalagra instrument. However, developing economical and safe formulations for Tundikeri patients is crucial to overcoming clinical problems, limitations, and side effects. Treatment protocols and procedures are mentioned in Ayurvedic texts, which are mainly described in two ways: medicinal and surgical. In medicinal procedures like Kawala, Gandusha, Pratisarana, Gutika, Bhasma, Guggulu, and Rasayoga therapy are implemented, and in Shashtra Kriya, they are Chhedana and Bhedana.

1.1. Aharaja Nidana

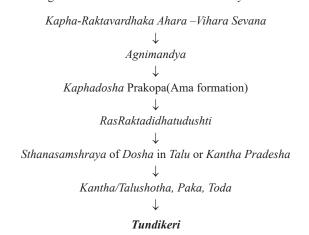
| NIDANA | A.S.,A.H. ¹⁵ | K.S. 16 | B.P. ¹⁷ | M.N 11 | Y.R. ¹⁴ |
|------------------------------------|-------------------------|---------|--------------------|--------|--------------------|
| Matsya Sevana | + | _ | + | + | |
| Atimamsa Sevana | + | _ | _ | _ | _ |
| Balamulaka | + | _ | _ | _ | _ |
| Masha | + | _ | _ | _ | + |
| Dadhi | + | _ | _ | _ | _ |
| Kshira | + | _ | _ | _ | _ |
| Ikshu | + | _ | _ | _ | _ |
| Shukta | + | _ | _ | _ | _ |
| Phanita | + | _ | - | | |
| Guru, Madhura, Sheeta Ruksha Ahara | + | + | - | | |
| Ati Sheetambu Sevana | _ | + | _ | _ | _ |

1.2. Viharajanya Nidana

| NIDANA | A.S., A.H. | K.S. | B.P. | M.N. | Y.R. |
|--|------------|------|------|------|------|
| Avak Shayya | + | _ | _ | - | - |
| Ati Parshwa Shayana | _ | + | _ | - | - |
| Anuchita-Dhuma, Chardana, Siravedha | + | - | - | - | _ |
| Vega Vidharana | _ | + | _ | _ | _ |
| Snana after Guru Ahara Sevana or in Ajirna | + | + | _ | - | - |
| Avruta Mukha Shayana | _ | + | _ | - | - |
| Danta Dhavana Dwesha | + | _ | _ | - | - |
| Anuchita Gandusha | + | _ | _ | _ | _ |

1.3. Samprapti

Ayurvedic texts do not specifically mention any *Samprapti* for *Tundikeri*. The following can be understood as the *Doshas-Dushya Vivechna*.



1.4. Subjective Criteria

| S.No. | Symptom in Ayu. | Symptoms in Modern |
|-------|-----------------|----------------------------|
| 1. | Shopha | Tonsil Enlargement |
| 2. | Toda | Pain in Throat |
| 3. | Daha | Sore Throat |
| 4. | Prapaka | Redness of mucous membrane |

1.5. Tundikeri in Classical text books

| S.N. | Description | <i>Brihatrayi</i> Literature | | Laghutrayi Literature | | rature | |
|------|--------------|------------------------------|---------------------|-----------------------|--------|--------|------|
| | | C.S. | Su. S. ⁶ | A.S.9 A.H.12 | Sh. S. | M.N.8 | B.P. |
| 1. | Nidana | | | ✓ | | ✓ | |
| 2. | Purvarupa | | | | | | |
| 3. | Lakshana | | ✓ | ✓ | | ✓ | |
| 4. | Complication | | | | | | |

2. CHIKITSA-

1. *Nidana Parivarjana*- Avoiding the causes of diseases, such as through proper diet and lifestyle choices (*Ahara* and *Vihara*), and practicing *Nidana Parivarjana*, is advised by Acharya Charaka and Acharya Sushruta. Having detailed information about the causes of diseases (*Nidana*) helps to prepare effective treatments.

2. Aushadha-

- a) Sthanika Chikitsa/Local application (Pratisarana, Kawala, and Gandusha)
- b) Abhyantara- Churna, Vati, Kwatha, Rasayoga, Bhasma.
- 3. Shastra Sadhya Chikitsa- Bhedana, Chhedana.

Table 1. Different references are given in different classical texts of Ayurveda

| Treatment | Procedure | Drugs | Reference |
|-------------------|---------------|---|-------------------------|
| Sthanika Chikitsa | Pratisarana | Tankana +Madhu. | |
| | | Maricha, Ativisha, Patha, Vacha, Kushtha, Kutannat, Lavana with Kshaudra. | Su.Chi. ⁷ |
| | | Apamarga Kshara | |
| | | Yavakshara | R. T. |
| | Kawala | Atisa, Haridra Kashaya, Kutaki, Patha, Rasna, Tankana Bhasma, Vacha, Neem Kashaya. | Su.Chi.7 |
| | Gandusha | | |
| | Churna | Pippalyadi churna, | C.Chi.26/188-89 |
| | | Tejovatyadi churna, | |
| | | Kalaka churna, Peetaka churna, | B.R. |
| Abhyantara | | Mridwikadi churna. | Mukharoga61/94-96 |
| Chikitsa | Vati | Yavagrajadi vatika, | Y.R. Mukha. Ni. Pg. 725 |
| | | Kshar gudika, | B.R. Mukharoga61/100 |
| OR | | Yavaksharadi Vati. | B.R. Mukharoga61/75 |
| | | Shiva gutika, Panchkola gutika, Kanchnar Guggul. | |
| Shaman Chikitsa | Kwatha | Darvyadi Kashaya, | B.R. Mukharoga61/73 |
| | | Dashmoola Kwath, Daruharidra, Indrayava, Katukadi Kashaya, Nimba, Panchavalkala | |
| | | Kashaya, | |
| | | Patoladi Kwath, | |
| | | Rasanjana with Madhu. | B.R.Pg 677 |
| | Bhasma | Tankana Bhasma, Sphatika Bhasma. | |
| | Rasayoga | Kumar Bharana Rasa, Amalapittantak Rasa, Mahalakshmivilasa Rasa, Praval Panchamrita Rasa. | |
| | Single Herbal | Ativisha, Daruharidra, Haritaki, Kutaki, Kanchanara, Mustaka, Neem, Patha, Shunthi, | C. Chi. 26/194-95,201 |
| | drugs | Vacha. | S.Chi.22/53-57 |
| Shastra Chikitsa | Bhedana | Incision | Su.S.Su. 25/5-8 |
| | Chhedana | Mandalagra Instrument | Su.S.Chi. 22/49-50 |

3. SOME DRUGS WITH THEIR PROPERTIES-

Table No. 3 EKALA AUSHADHA-

| S.N. | Aushadha | Action |
|------|-------------|--|
| 1. | Daruharidra | Kaphapitta and Raktashamaka and Shothahara. Anti-pyretic, anti-bacterial, anti-microbial and anti-inflammatory. B. Aristata contains the alkaloid berberine. It is well known for its anti-inflammatory qualities. Immune-stimulating actions, which could be useful in: Tonsillitis patients. |
| 2. | Haritaki | Aampachana, Jvarhara, Kashaghna, Shothhara, Vishghna. The leaves, bark, and fruit of Terminalia chebula have high antioxidant activity, and phenolics were found to be responsible for this activity. |
| 3. | Ativisha | Tridoshashar, especially KaphaPittashamaka, Shothahara. Analgesic, Anti-inflammatory. |
| 4. | Kanchnar | <i>Kapha, Pittashamaka</i> . The parts of <i>B</i> . Variegata have anti-inflammatory, antioxidant, antibacterial, antiulcer, and astringent properties. |
| 5. | Kutaki | Kapha Pittahara, Raktadoshahara, Shothahara. Antioxidant, Anti-allergic. |
| 6. | Mustaka | Kapha Pittashamaka, Lekhana, Jvaraghna. Anti-inflammatory. |
| 7. | Patha | Tridoshashamaka, Kaphapittashamaka, Vranaropana. Anti- pyretic, Analgesic. |
| 8. | Shunthi | Kaphavatashamaka, Shothahara. Anti-bacterial. |
| 9. | Neema | Kapha -Pittahara, Vranashodhana. Antimicrobial, Antiviral. |
| 10. | Vacha | Kaphavatashamaka, Shothahara.Anti-allergic. |
| 11. | Giloya | Tridoshashamaka. Antimicrobial, Antiviral. |

Table No.4 VATI/GUGGULU

| S.o. | Name | Action |
|------|-------------------|--|
| 1. | Yavaksharadi Vati | The medicinal properties of key ingredients in <i>Yavaksharadi Vati</i> ; <i>Daruhaldi</i> have astringent, antibacterial, antipyretic, and antiseptic, anti-inflammatory effects. <i>Yavakshara</i> provides antipyretic and wound-healing benefits, while Pippali, rich in Piperine alkaloid, demonstrates antimicrobial, antipyretic, and immunomodulatory properties. Patha exhibits astringent, antipyretic, and anti-inflammatory characteristics. |
| 2. | Kanchnar Guggul | Kanchnara Guggulu, containing Tikta, Kashaya, Madhura Rasa, Ushna Virya, Katu Vipaka, Laghu, Ruksha, Ushna, Tikshna Gunas, Tridoshahara, and Shothahara properties, it subsides Kaphapitta Doshas. |
| 3. | Triphala Guggul | Shothahara, Vedanahara and Anti-inflammatory. |

Table No.5 STHANIKA CHIKITSA (Pratisarana /Kawala/Gandusha)

| S.o. | Name | Action |
|------|---|---|
| 1. | Tankana with Madhu Pratisarana | Pratisarana relies on Rasa and Virya drugs, while Tankana has <i>Katu Rasa</i> , <i>Ushna Virya</i> , <i>Ruksha</i> , <i>Tikshna Guna</i> , and <i>Kaphahara</i> . <i>Madhu</i> has <i>Madhura</i> , <i>Kashaya Rasa</i> , <i>Laghu</i> , Ruksha <i>Guna</i> , <i>Shita Virya</i> , <i>Madhura Vipaka</i> and <i>Yogavahi</i> . |
| 2. | Haridradi Pratisarana | Haridra and Tankana. Both the drugs having anti-microbial and anti-inflammatory property. |
| 3. | Tankana Sphatika Bhasma with Madhu Pratisarana | Tankana's Kapha-Visleshaka and Vatahara are due to Katu rasa, Ushna Virya, and Tikshna guna, which help the drug penetrate deeper parts of Tundikeri, removing vitiated Kapha Dosha: Sphatika, shows broad-spectrum antibacterial potency against test bacteria, particularly Gram-negative, suggesting its potential as a novel food-borne pathogen. |
| 4. | Pippalyadi churna Pratisarana | Chhedana, Bhedana, Kaphahara, Shothahra |
| 5. | Apamarga Pratisarana | Kapha-Raktahara |
| 6. | Haridra, Atisa Kawala | <i>Haridra</i> anti-microbial and anti-inflammatory. ⁴⁸ <i>Atisa Kapha Pittashamaka, Shothahara</i> . ²⁵ Analgesic, Anti-inflammatory. ²⁶ |
| 7. | Patoladi Kwath Gandusha and oral use | Patola, Shunti, and Triphala are Tikta rasa Pradhana dravyas used to manage Tundikeri, reduce pain, control Anulomana karma, and pacify Kaphapitta and Tridoshahara. |
| 8. | Triphala Madhu gandusha | Triphala Kaphapittahara and Madhu have Yogavahi, Shodhana, Vishaghna and Kasaghna. |

Table No. 6 AVALEHA AND SYRUP

| S.N. | Name | Actions |
|------|----------------------------|---|
| 1. | Dashamula-haritaki Avaleha | Lekhana and Ropana. Shodhana and Kaphavatahara. |
| 2. | Patoladi Syrup | Kaphapittashamak and Tridoshahara.55 |

4. DISCUSSION

The management of tonsillitis, particularly chronic tonsillitis, through Ayurvedic approaches provides a comprehensive alternative to conventional treatments. Chronic tonsillitis, characterized by persistent inflammation and infection of the tonsils, poses significant health challenges, especially in children. The recurrent nature of this condition often leads to systemic complications and hampers the overall growth and development of affected individuals. The Ayurvedic approach to treating tonsillitis, or Tundikeri, offers a multi-faceted strategy that includes both medicinal and surgical interventions. Ayurvedic texts describe Tundikeri as a condition marked by symptoms such as swelling, pricking pain, burning sensation, and suppuration, which are similar to those of chronic tonsillitis. The pathogenesis of Tundikeri involves Kapha Prakopa and Rakta Dushti, leading to obstruction and increased dampness in the throat region. Traditional treatments in Ayurveda focus on balancing the doshas, particularly Kapha and Pitta, which are often implicated in this condition. One of the primary benefits of Ayurvedic management is the use of natural and herbal remedies that possess various therapeutic properties. For instance, drugs such as Daruharidra, Haritaki, Ativisha, and Kanchanar exhibit anti-inflammatory, antimicrobial, and immunomodulatory effects, which are crucial in reducing the symptoms and preventing the recurrence of tonsillitis. These herbs not only alleviate the inflammation and pain associated with tonsillitis but also enhance the immune response, thereby reducing the frequency of infections. The local application of formulations like Tankana with Madhu, Haridradi Pratisarana, and various Kwathas (decoctions) helps in providing immediate relief from symptoms. These formulations are designed to reduce Kapha and Pitta, promote healing, and prevent the accumulation of Ama (toxins). Procedures such as Pratisarana (local application), Kawala (gargling), and Gandusha (holding liquid in the mouth) are effective in directly addressing the affected area, providing symptomatic relief, and promoting overall oral health. Internally administered medicines, including Churnas (powders), Vatis (tablets), Bhasmas (calcined preparations), and Rasayogas (herbo-mineral formulations), offer systemic benefits. They work on various levels, from reducing inflammation and pain to enhancing the body's immune defenses. For example, Yavaksharadi Vati and Kanchnar Guggul are

noted for their anti-inflammatory and immunomodulatory properties, making them suitable for managing chronic tonsillitis.

The surgical approaches described in Ayurvedic texts, such as Bhedana (incision) and Chhedana (excision), are reserved for severe cases where medicinal treatments are insufficient. These procedures, performed using instruments like Mandalagra, aim to remove the obstructed material and restore normal function to the tonsils and surrounding tissues. The integration of Nidana Parivarjana (avoiding causative factors) into the treatment regimen emphasizes the importance of lifestyle and dietary modifications. Avoiding foods and behaviors that aggravate Kapha and Pitta is crucial in preventing the onset and recurrence of tonsillitis. By adhering to these principles, individuals can maintain a balanced state of health and reduce the likelihood of developing chronic conditions.

5. CONCLUSION

In conclusion, the Ayurvedic approach to managing Tundikeri (chronic tonsillitis) harnesses the potent properties of various herbs and formulations to provide a holistic and effective treatment. By employing a combination of carefully selected herbs and formulations, Ayurveda targets the root causes of the condition, such as excess Kapha and Pitta, while also addressing acute symptoms like swelling and pain. This comprehensive approach includes maintaining the equilibrium of all three doshas to prevent recurrence, promoting tissue repair and recovery, managing inflammatory responses, reducing fever, and strengthening the immune system to lower the risk of future infections. Furthermore, the anti-microbial and antiviral properties of the chosen remedies ensure effective pathogen neutralization, preventing the spread and worsening of the condition. This comprehensive approach not only addresses the acute symptoms of Tundikeri but also fosters long-term health and immunity. By integrating these diverse properties, Ayurvedic medicine offers a robust solution that treats the condition and prevents its recurrence, highlighting the efficacy and wisdom of Ayurvedic practices in managing chronic conditions like Tundikeri. Moreover, this approach sets a foundation for future health by promoting a balanced dosha state and enhancing the body's natural defenses, ensuring resilience against infections and other health challenges.

Table No.7 RASAYOGA

| S.N. | Name | Actions |
|------|--------------------|--|
| 1. | Kumarabharana rasa | Swarna Bhasma encourages phagocytosis to boost immunity. In allergic reactions of the respiratory tract, Vacha has an inhibitory effect on mast cell-dependent anaphylactic incidents. |
| 2. | Trisama churna | Immunomodulatory, Antimicrobial, Anti-inflammatory and antiviral. |

Some drugs with their properties and mode of action :-

| S.N. | Drugs name | Property | Mode of Action |
|------|----------------|---------------------------|---|
| 1. | Ativisha | Shothahara | May reduce the Shotha due to its Katu, Tikta rasa and Laghu Ruksha Guna of Ativisha. |
| 2. | Mustaka Giloya | Jvarahara | Relieve from fever due to its <i>Tikta</i> , <i>Katu</i> , <i>Kashaya</i> rasa and <i>Laghu</i> , <i>Ruksha guna</i> of <i>Mustaka</i> and <i>Tikta</i> , <i>Kashaya</i> rasa and <i>Guru snigdha guna</i> property of <i>Guduchi</i> may Jvarahara effect. |
| 3. | Ativisha | Kapha-Raktashamaka | Balance the Kapha-Pitta Dosha due to it's the Tikta, Katu, Kashaya rasa and Laghu Ruksha guna of Ativisha. |
| 4. | Tankana Bhasma | Kasaahara, Kaphanissaraka | Katu rasa, ruksha, teekshna, Guna, and ushna, Veerya: It Leads kaphaghna, kapha vishleshaka (mucolytic), effect which can Kasahara and Kaphanissaraka property of Tankana. |
| 5. | Guduchi | Tridoshashamaka | Balance the vitiated Kapharakta dosha by its Tridoshashamakproperties. |

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