

A Comprehensive ayurveda Review of the *Tonsillitis* in the Children

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Abstract: Intermittent infections can disrupt the normal development and progress of a child. Tonsillitis refers to the inflammation of the tonsils, which are two oval-shaped pads at the back of the throat and play a crucial role as the immune system's first line of defence. Tonsillitis significantly impacts the quality of life due to its recurrent nature. It is a prevalent condition, with approximately 8 lacks cases reported annually in India. While current medicine offers symptomatic relief, it does not effectively prevent recurrence and may also lead to side effects.

Moreover, persistent conditions often lead to tonsillectomy, which also comes with its own set of challenges and drawbacks. Therefore, there is a pressing need to discover a safe and effective remedy that not only alleviates symptoms but also enhances overall well-being. In Ayurvedic terminology, Tonsillitis can be correlated with "*Tundikeri*," a condition classified under "*Mukharoga*" (diseases of the oral cavity). According to Ayurvedic texts, *Tundikeri* manifests as a swelling resembling a cotton fruit at the base of the temporo-mandibular joint. By analysing signs and symptoms, *Tundikeri* can be equated with Tonsillitis, characterized by inflammation of the tonsils—two oval-shaped tissue pads at the throat's rear, one on each side. *Tundikeri* is typically caused by digestive impairment, aggravation of Kapha, and Rakta dosha due to improper diet, poor oral hygiene, and a sedentary lifestyle. Ayurveda offers diverse treatment modalities to address such conditions. This paper aims to elucidate the clinical presentation of *Tundikeri* and explore its management through Ayurvedic principles.

Keywords: *Mukharoga*, Inflammation, Kapha -Rakta Doshha, Tonsillitis, *Tundikeri*.

INTRODUCTION

1. Definition of *Tundikeri*: According to the description provided, *Tundikeri* is said to resemble cotton fruit ("*Tundikeri karpasyam vanakarapasiphalam*").¹
2. Classification by Acharya Susruta: According to Acharya *Susruta*, *Tundikeri* is classified as a "*Talugata roga*." This suggests that Susruta

categorizes *Tundikeri* as a disease related to the region of the palate or throat.²

3. Classification by Acharya *Vagbhat*: According to Acharya *Vagbhatt*, *Tundikeri* falls under "*Kanthagata roga*." This classification implies that *Vagbhatt* sees *Tundikeri* as a disease affecting the throat region (*Kantha*).³

In Ayurveda, the classification of diseases often takes into account the affected anatomical region (*gata*), among other factors such as dosha involvement, symptoms, and aetiology. *Tundikeri*, based on the descriptions, seems to be associated with the mouth or throat region, and the comparison to cotton fruit might describe its appearance or texture. The palatine tonsils are paired structures consisting of lymphoid tissue. They are located in the tonsillar fossa between the anterior and posterior tonsillar pillars formed by palatoglossus and palatopharyngeus muscles respectively. Along with the adenoids, the lingual tonsils, the tubal tonsils and the diffuse aggregates of pharyngeal submucosal lymphoid tissue, they make up Waldeyer's ring. The tonsils are composed of lymphoid tissue. Both T- and B-lymphocytes are present though B-lymphocytes predominate.[4] Acute tonsil inflammation may be localized episode, in association with an upper respiratory illness or as a part of generalized systemic infection. The causative organism usually is GABHS (Group A beta-hemolytic streptococci), although a range of other organisms including viruses and anaerobes may be implicated. Acute tonsillitis is diagnosed mainly on the basis of clinical assessment. There is a short history of sore throat with fever and pain on swallowing. Examination generally reveals erythema of the tonsils and posterior pharyngeal wall, with obvious exudates on the tonsils occasionally. This is usually associated with tender jugulo diagastric lymph node enlargement.[5] *Tundikeri* happens because of Kapha *prakopa* and Rakta *dushti*, [6] Medications having Lekhan (Scraping), *Shothahar* (Anti-inflammatory),

Sandhaniya (Tissue binding), *Ropan* (Healing), *Rakta stambhan* (Haemostasis), *Vedna sthapan* and *Pitta Kapha shamak* properties should be ideal for the treatment of Tonsillitis.

OBJECTIVES

1.To shed light on the ancient wisdom of Ayurveda, specifically Tundikeri, and its relevance in the modern healthcare landscape.

Material –

In order to conduct the study, a comprehensive collection of materials was gathered from various sources including the *From Charak Samhita, Ashtang Hridayam, Ashtang Samgrah, Sushrut Samhita*, research articles, review papers, websites, and other relevant sources.

Method-

To search in Samhita and other text, some Article and compile the paper.

Review -

Derivation Tundi - This word is gotten from the root "Tung" which signifies "Snout" and afterward it is suffixed from "Ana" which brings about the current word "Tundi".

The significance of Tundi being Beak, Snout, Bimbi, Cotton spice, expanding of umbilicus.

Meaning

Tundikeri implies Vana Karpas Phala (*Gossypium herbacium*).

The infection or the Shotha, which seems like that of cotton fruit.

Definition

As per Acharya Sushruta Tundikeri is the illness brought about by the vitiation of Kapha and Rakta and portrayed by Shotha (expanding), Toda (pricking kind of agony), Daha (burning sensation), Prapaka (Suppuration).⁷

Aetiology

Microbes like Hemolytic streptococcus, Staphylococci, Pneumococci or H. Influenzae.

Infection like Adenovirus, Rhinovirus, Influenza An infection, Para flu infection, Epstein bar infection

are some potential micro-organisms causing Tonsillitis

Nidana of Mukh Rogas

Aaharaja nidana Viharaja nidana

Excessive intake of Matsya(fish), Mahisha Mamsa(buffalo'smeat), Varaha Mamsa (pig's meat), Amalaka, Mulakam (raw radish), Masha (black gram), Dadhi (curd), Kshira (milk), Shukta, Ikshurasa (sugarcane juice) and Phanita.

Excessive indulgence in Avak Shayya (sleeping in prone position), Dwishato Dantadhavana (improper dental hygiene), Dhuma (improper Dhumapana), Chhardana (improper vomiting), Gandusha (improper gargaling), Siravyadha (improper venesection)

Excessive intake of Aanuppishit, ksheer, dadhi, matsya.

Pathogenesis

Consuming foods with predominantly sweet (Madhura), sour (Amla), or salty (Lavana) tastes, along with heavy (Ahara), oily (Snigdha), and mucous-forming (Abhishyandi) foods, as well as improper oral hygiene and sleeping with the head in an inclined position, can lead to:

1. Agnimandya: Weak digestive fire, leading to incomplete digestion and metabolism of food.
2. Kaphadosha Prakopa: Aggravation of Kapha dosha, which governs stability and structure in the body, potentially causing imbalances.
3. Rakta Dushti: Impairment or vitiation of blood, disrupting its normal functions.

These factors collectively contribute to:

- Sthana Sanshraya: Accumulation or localization of these doshas (bioenergetic principles) and vitiated substances in the region of the Talu (palate).

In simpler terms, the consumption of certain tastes and types of food, combined with poor oral hygiene and sleeping habits, can lead to digestive issues, imbalance of Kapha dosha, and blood disorders. These imbalances may manifest and accumulate specifically in the palate area.

Samprapti-ghataka: This refers to the pathogenesis or the sequence of events leading to the manifestation of a disease.

1. Doshha: Kapha (According to Acharya Vagbhata):
 - Kapha Doshha in Ayurveda represents the principle of stability and structure. It is associated with mucus, lubrication, and structural support in the body.
2. Kapha Rakta (According to Acharya Sushruta):
 - Kapha Rakta refers to a vitiation where Kapha and blood are involved, often resulting in conditions related to the imbalance of these elements in the body.
3. Dushya: Rasa, Rakta, Mamsa:
 - Rasa: Plasma and lymphatic system.
 - Rakta: Blood.
 - Mamsa: Muscles.
 - These are the tissues (dushyas) that can be affected or involved in the disease process.
4. Srotasa: Rasavaha, Raktavaha, Mamsavaha:
 - Rasavaha srotas: Channels responsible for transporting nutrients derived from plasma and lymph.
 - Raktavaha srotas: Channels responsible for transporting blood.
 - Mamsavaha srotas: Channels responsible for transporting nutrients to muscles.
 - These are the channels or systems through which nutrients and other substances flow in the body.
5. Agni: Jatharagni, Dhatvagni:
 - Jatharagni: Digestive fire located in the stomach and responsible for digestion of food.
 - Dhatvagni: Tissue-specific metabolic fires responsible for the transformation and maintenance of each tissue (dhatu) in the body.
6. Mandya Srotodushti: Sanga:
 - Mandya: Impaired or weakened.
 - Srotodushti: Dysfunction or impairment of the channels (srotas).
 - Sanga: Conditions resulting from the obstruction or impairment of normal flow in the channels, leading to disease.
7. Roga Marga: Bahya Udbhava:
 - Roga Marga: Pathway of disease manifestation.

- Bahya Udbhava: Originating externally, often referring to diseases originating from external factors or influences.
8. Sthana: Amashaya:
 - Sthana: Site or location.
 - Amashaya: Stomach, where digestion and initial metabolism take place.
 9. Adhithana: Mukha, Hanusandhi:
 - Adhithana: Location or site of manifestation.
 - Mukha: Oral cavity.
 - Hanusandhi: Junctions related to the nose and throat.
 10. Vyaktisthana: Talu or Kantha:
 - Vyaktisthana: Specific site of manifestation.
 - Talu: Palate.
 - Kantha: Throat or larynx.

These terms from Ayurveda describe various aspects of disease manifestation, pathogenesis, and physiological concepts in terms of doshas (bioenergetic principles), tissues (dushyas), channels (srotas), digestive fire (agni), and sites of manifestation (sthana, adhithana, vyaktisthana). Ayurveda considers these factors in understanding and treating diseases holistically.

Clinical Features Of Tundikeri^{8,9}

- Toda (Pricking Pain): A sharp, needle-like pain sensation.
- Daah (Burning Sensation): A feeling of heat or burning discomfort.
- Paak (Suppuration): The process of forming or discharging pus.
- Shopha (Inflammation): Swelling and redness due to tissue irritation or injury.
- Sore throat: Pain, irritation, or scratchiness in the throat.
- Enlarged delicate lymph node: Swollen and tender lymph gland.

According to Acharya Sushruta, he categorically stated that cancer (Arbuda) of the palate (Talu) is incurable (Asadhya) compared to other diseases of the palate, which are treatable (Sadhya). Similarly, Acharya Vagbhata classified a condition called Tundikeri among those that can be treated successfully (Sadhya). Later Ayurvedic scholars have also not classified Tundikeri as incurable. Therefore, based on these texts, Tundikeri is

considered a treatable (Sadhya) condition rather than an incurable (Asadhya) one.

Ayurvedic Management Ayurveda is a study of life which gives therapeutic as well as preventive standards for sound life. Ayurvedic treatment targets taking out pollutions, lessening side effects, boosting insusceptibility, decreasing pressure and expanding amicability throughout everyday life. Nidana parivarjan Intends to keep away from the causative variables of the disease.¹⁰

It is the principal line of treatment of any illness. Tonsillitis shows because of Kapha prakopa, Agnimandya, Rakta dushti. So all the Kapha Rakta pakopaka and Agnimandya karak aahar vihar ought to be kept away from in Tonsillitis. Ayurveda has distinctive treatment modalities for the administration of infections like: Antah parimarjan chikitsa, Bahi parimarjan chikitsa, Shastra pranidhan chikitsa.¹¹

Consuming foods with predominantly sweet (Madhura), sour (Amla), or salty (Lavana) tastes, along with heavy (Ahara), oily (Snigdha), and mucous-forming (Abhishyandi) foods, as well as improper oral hygiene and sleeping with the head in an inclined position, can lead to:

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These factors collectively contribute to:

- Sthana Sanshraya: Accumulation or localization of these doshas (bioenergetic principles) and vitiated substances in the region of the Talu (palate).

In simpler terms, the consumption of certain tastes and types of food, combined with poor oral hygiene and sleeping habits, can lead to digestive issues, imbalance of Kapha dosha, and blood disorders. These imbalances may manifest and accumulate specifically in the palate area.

expalin in refine language Acharya Sushruta has said just Talu Arbuda is Asadhya among Talu Rogas, all others are Sadhya Rogas. Acharya Vagbhata has

likewise said Tundikeri to be among the Sadhya Rogas. None of the later Acharyas have said Tundikeri as Asadhya. Consequently Tundikeri is a Sadhya Roga

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One of the fundamental principles in Ayurvedic treatment is Nidana Parivarjan, which means avoiding the causative factors of a disease. This approach is considered the primary line of treatment for any illness. For instance, in the case of tonsillitis, which is believed to occur due to an imbalance of Kapha (body fluid principle), impaired digestive fire (Agnimandya), and vitiation of blood (Rakta dushti), Ayurveda recommends avoiding foods and activities that aggravate these factors.

Ayurveda employs different treatment modalities to manage diseases:

- Antah Parimarjan Chikitsa: Internal cleansing therapies aimed at detoxifying the body and restoring balance.
- Bahi Parimarjan Chikitsa: External therapies such as herbal applications, oils, and massages to alleviate symptoms and promote healing.
- Shastra Pranidhan Chikitsa: Surgical interventions or procedures that may be necessary in certain conditions.⁸

These approaches are tailored to address the root causes of diseases and restore health through a holistic understanding of the body and its interactions with the environment.

A. Medication /Therapies

- Dhumpana: Herbal smoking or inhalation therapy used to treat respiratory and other disorders by administering medicinal smoke.
- Pradhamana Nasya: Nasal administration of medicated powders to treat nasal and sinus conditions.
- Virechana: Therapeutic purgation or controlled bowel cleansing to eliminate toxins and balance doshas.
- Vamana: Therapeutic emesis or induced vomiting to expel toxins and balance doshas.
- Langhana: Therapeutic fasting or controlled diet restriction to aid in digestion, metabolism, and toxin elimination.

Sushruta:

- Gandusha: Oil pulling therapy involving swishing oil in the mouth to improve oral and systemic health.
- Kawala: Gargling with medicated liquids to treat throat and oral conditions.
- Pratisarana: Application of medicinal pastes or ointments externally to treat skin and other localized conditions.

Vagbhata:

- Nasya: Nasal administration of medicated oils or powders, similar to Charaka, used for various therapeutic purposes.

Yogaratanakara:

- Raktamokshan: Specifically focuses on bloodletting therapy, similar to Vagbhata's practice, aimed at removing vitiated blood from the body to restore health and balance.

Internal Medications

1. Churna- *Pippalyadi churna, Tejovatyadi churna, Kalak churna, Peetaka churna, Mridwikadi churna.*
2. Vati -*Yavagrajadi vatika, Kshar gudika, Shiva gutika, Kshar gutika, Panchkola gutika, Kanchnar Guggul, Yavaksharadi Vati.*
3. Kwatha- *Darvyadi Kashaya, Katukadi Kashaya, Dashmoola Kwath, Patoladi Kwath, Panchavalkala Kashaya, Daruharidra, Nimba, Rasanjana, Indrayava with Madhu.*
4. Bhasma- *Tankana Bhasma, Sphatika Bhasma.*
5. Rasa -*Kumar Bharana Rasa, Amalapittantak Rasa, Mahalakshmvilasa Rasa, Praval Panchamrita Rasa.*
6. Ekal Dravya- *Daruharidra, Haritaki, Nimba, Mustaka, Ativisha, Patha, Kutaki, Vacha, Kanchanara, Shunth.*

Properties would be ideal for treating tonsillitis:

- Lekhan: Agents that help in scraping off or reducing excess mucus or phlegm from the tonsils.
- Shothahar: Substances that reduce inflammation and swelling (edema), which are common in tonsillitis.
- Sandhaniya: Compounds that promote healing and regeneration of tissues, aiding in the recovery of the inflamed tonsils.
- Ropan: Medications that have wound healing properties, helping to repair any damaged tissues in the throat.
- Rakta stambhan: Drugs that help in controlling bleeding, which may be necessary if there is any bleeding associated with tonsillitis.
- Vedna sthapan: Pain-relieving agents that alleviate the discomfort and soreness typically experienced with tonsillitis.
- Pitta Kapha shamak: Substances that balance and reduce the aggravation of Pitta (heat) and Kapha (mucus) doshas, which are often implicated in the pathogenesis of tonsillitis.

These properties collectively address the symptoms and underlying causes of tonsillitis, aiming to reduce

inflammation, promote healing, relieve pain, and restore normal function of the tonsils and throat.

Chikitsa Karma Aushadh Yoga

1. Kawala- Tankana bhasma, Haridra Kashaya, Vacha, Atis, Patha, Rasna, Kutki, Neem Kashaya.

2. Gandusha- Triphala, Trikatu, Yavakshara, Daruharidra, Chitraka, Rasanjana, Nimba, Saptachadadi Gandusha kashya.

3. Pratisarana- Marich, Atis, Patha, Vacha, Kushtha, Arlu, Saindhav lavan and Madhu, Tankana and Madhu, Sphatika and Madhu, *Apamarg kshar* and *Tankana kshar*, Peetaka choorna and Pravala Bhasma .

In Shastra Pranidhan Chikitsa, Acharya Sushruta has outlined the treatment of Tundikeri following the treatment principles for Galashundika. The therapies recommended by Acharya Sushruta include both surgical procedures such as Bhedana (Incision) and Chhedana (Excision).¹²

As per Yogaratnakara Pathya-Apathya in Mukha rogas are as follows¹³

Dos

- Barley (Yava),
- green gram (Mudga),
- horse gram (Kulattha),
- lean meat (Jangala Mamsa Rasa),
- bitter gourd (Karvellaka),
- pointed gourd (Patola),
- camphor water (Karpurajala),
- warm water,
- acacia catechu (Khadira),
- clarified butter (Ghee),
- bitter and pungent herbs
- sudation therapy (Swedana),
- Purgation therapy (Virecana),
- Emesis (Vamana),
- Gandusha (medicated gargaling),
- Pratisarana,
- Blood letting (Raktamokshana),
- Errhine therapy (Nasya),
- Dhumapana,
- Surgary (Shashtra)
- Agnikarama

Avoid :

- Sour foods (Amla Rasa Dravyas),

- mucous-producing diet (Abhishyandi Ahara),
- fish (Matsya),
- yogurt (Dadhi),
- milk (Kshira),
- jaggery (Guda),
- black gram (Masha),
- dry and hard substances (Ruksha Kathina Padartha), and heavy foods (Guru Ahara).

Avoid Lifestyle: Daytime sleep (Diwaswapna), use of cool water (Shitala Jala), sleeping with the head lower than the body (Adhomukha Shayana), and bathing practices (Snana)."

DISCUSSION

Recurrent bouts of infections such as tonsillitis impact the normal growth and development of a child and may lead to various health complications. Tonsillectomy poses direct challenges to the respiratory and gastrointestinal tracts. Tonsils serve as crucial guardians of the oral cavity. Antibiotics fail to effectively prevent the recurrence and chronicity of the disease. Ayurveda, an ancient science of longevity and daily living, has transformed the lives of countless individuals for millennia. Ayurvedic management focuses on alleviating the classical symptoms of Tundikeri roga through Sanshodhan (purification therapies), Sanshaman (pacification therapies), and Shastra Chikitsa (surgical interventions).

CONCLUSION

Tundikeri, which correlates with acute tonsillitis in modern science, can be effectively managed through appropriate treatment protocols, a balanced diet regimen, and meticulous oral hygiene practices, thereby reducing the necessity for tonsillectomies. Tonsillitis adversely affects the growth and development of children. Ayurvedic treatment principles, when translated into contemporary standards, offer diverse therapeutic modalities for the effective management of tonsillitis. This article highlights various treatment approaches from Ayurvedic texts that can be adapted to address tonsillitis comprehensively. Emphasizing a holistic approach in Ayurveda is crucial to mitigate future health risks and promote a healthy lifestyle. *Kalaka Churna*, *Marichyadi Churna Pratisarana*, and *Samshamani Vati* are three effective Ayurvedic formulations renowned for their significant results in managing Tundikeri (acute tonsillitis), offering a natural approach devoid of adverse effects. As

Ayurvedic treatments are known for their holistic benefits, they provide side benefits rather than side effects.

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