

TUNDIKERI (CHRONIC TONSILLITIS) IN CHILDREN: A COMPREHENSIVE REVIEW OF AYURVEDIC AND CONTEMPORARY PERSPECTIVES

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ABSTRACT

Tundikeri, described among the *Talugata* and *Kantagata* disorders in classical *Ayurvedic* literature, corresponds broadly to chronic tonsillitis in contemporary paediatric practice. Despite its frequent occurrence in childhood, classical texts offer only a fragmented description of the condition, and the disease has been interpreted differently across authorities *Acharya Sushruta* placing its origin in the *Talu* (palate) and *Acharya Vagbhata* situating it within *Kantagata Roga* (throat disorders). This review consolidates the historical, Ayurvedic, and modern biomedical literature on *tundikeri* /chronic tonsillitis to build a coherent clinical and conceptual picture useful for practice and research. Classical sources (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Ashtanga Sangraha*, *Kashyapa Samhita*, *Madhava Nidana*, *Yogaratanakara*, *Gada Nigraha*, *Bhavaprakasha*) and standard otolaryngology and paediatric texts, together with recent epidemiological literature on paediatric sore throat and tonsillitis, were reviewed and synthesised under aetiology (*Nidana*), pathogenesis (*Samprapti*), clinical presentation (*Roopa*), and management (*Chikitsa*), alongside the modern anatomy, immunology, aetiology, classification, and treatment of tonsillitis. The review also examines the classical basis and pharmacological rationale of three formulations relevant to *Tundikeri* *Apamarga Kshara*, *Vachadi Kwatha Kavala*, and *Kaishora Guggulu*. The synthesis indicates that *tundikeri* is best understood as a *Kapha-Pitta* predominant, *Rasa-Rakta-Mamsa* affecting disorder with substantial conceptual overlap with the modern understanding of recurrent/chronic tonsillar inflammation, and that classical local (*Pratisarana*, *Kavala*) and systemic (*Shophahara*) interventions offer a plausible, texts-supported basis for further clinical evaluation. Gaps remain in the classical description of *Purvaroopa* and *Samprapti*, which have had to be extrapolated from the general principles of *Shotha* and *Mukharoga*.

Keywords: *Tundikeri*; chronic tonsillitis; *Mukharoga*; *Kaishora Guggulu*; *Apamarga Kshara*

INTRODUCTION

Chronic tonsillitis is among the commonest conditions encountered in paediatric otolaryngology, contributing significantly to school absenteeism, recurrent morbidity, and downstream complications such as peritonsillar abscess and post-streptococcal sequelae. *Ayurvedic* classical texts describe a corresponding, though sparsely elaborated, condition *Tundikeri* within the broader category of *Mukharoga* (diseases of the oral cavity and throat). Unlike many other *Mukharogas*, the classical description of *Tundikeri* is brief and inconsistently located across authorities, with *Acharya Sushruta* classifying it as a *Talu Roga* and *Acharya Vagbhata*, *Sharangadhara*, and *Chakrapani Datta* placing it instead under *Kantagata Roga*.

A systematic review of the disease across classical periods, alongside the modern anatomical, physiological, and clinical understanding of the tonsils, is therefore necessary before any rational therapeutic protocol can be proposed or evaluated.

This review aims to:

- (a) Trace the historical evolution of *Tundikeri* and of *Kshara Karma* across the *Vedic*, *Samhita*, and modern periods
- (b) Consolidate the classical *Ayurvedic* description of *tundikeri* *Nidana*, *Purvaroop*, *Roopa*, *Samprapti*, *Sadhyasadyata*, and *Chikitsa*
- (c) Summarise the modern anatomical, physiological, and clinical literature on the palatine tonsils and tonsillitis in children
- (d) Review the classical basis and pharmacodynamic rationale of three formulations commonly indicated in this condition *Apamarga Kshara*, *Vachadi Kwatha Kavala*, and *Kaishora Guggulu*.

MATERIALS AND METHODS

This is a narrative literature review. Classical *Ayurvedic* sources consulted included *Charaka Samhita*,^[1] *Sushruta Samhita*^[2] (with *Dalhana's Nibandhasangraha* commentary), *Ashtanga Hridaya*,^[3] *Ashtanga Sangraha*,^[4] *Kashyapa Samhita*,^[5] *Sharangadhara Samhita*,^[6] *Chakradatta*,^[7] *Madhava Nidana*,^[8] *Yogaraj Nidana*,^[9] *Gada Nigraha*, and *Bhavaprakasha*^[10] along with available commentaries (including *Acharya Gangadhara's* annotations on *Charaka Samhita*). These texts were examined for direct or contextual references to *Tundikeri*, *Talugata Roga*, *Kantagata Roga*, and *Mukharoga* in general, and for the classical description, preparation, and indications of *Kaishora Guggulu*, *Apamarga Kshara*, and *Vachadi Kavala* in particular.

Standard textbooks of otolaryngology^[11] and paediatric medicine were reviewed for the gross anatomy, histology, blood supply, lymphatic drainage, and nerve supply of the palatine tonsils, and for the aetiology, classification, clinical features, grading, complications, and treatment of tonsillitis.^[12] Contemporary epidemiological data on paediatric sore throat and tonsillitis were drawn from recent systematic reviews and Global Burden of Disease-based analyses, supplemented by hospital-based bacteriological and otolaryngological surveillance studies from Indian tertiary centres, accessed through standard biomedical literature databases. No date restriction was applied to classical sources; contemporary sources were prioritised for recency where multiple reports existed. Information was organised thematically under historical review, *Ayurvedic* disease review, modern disease review and drug review, and cross-checked against the corresponding primary text or publication wherever page/chapter references were available in the source material.

RESULTS AND DISCUSSION

Historical Review

Tundikeri is a common but classically under-described disease.

For clarity, its history has been divided into three periods: *Vedika Kala*, *Samhita Kala*, and *Adhunika Kala* (modern period).

Vedika Kala

The *Vedas* contain no specific or direct description of *Tundikeri*.

Samhita Kala

The *Charaka Samhita* does not describe *Tundikeri* directly, though the condition can be contextually related to *Ekadesheeya Shotha* (localised swelling). *Acharya Charaka* described four types of *Mukha Roga* - *Vataja*, *Pittaja*, *Kaphaja*, and *Sannipataja* — and *Acharya Gangadhara*, commenting on this section, drew on *Sushruta Samhita* to elaborate on *Tundikeri* specifically.

Sushruta Samhita offers the most detailed classical account of *Tundikeri* among all the *Samhitas*, discussing it under *Talugata Rogas* with emphasis on surgical management consistent with *Sushruta's* broader role as the founding text of *Shalakya Tantra*. *Acharya Vridhha* and *Laghu Vagbhata*, by contrast, placed *Tundikeri* under *Kantagata Roga*, identifying the throat (*Kantha*) rather than the palate as the primary site of origin.

Kshara Karma through the Samhita period

The *Samhita* period marks the beginning of well-documented knowledge on *Kshara*, with detailed accounts of its preparation, properties, and internal and external therapeutic use. *Acharya Sushruta* ranked *Kshara* above *Shastra* (surgical instruments) and other *Anushastras*, citing its dual capacity for *Chedana* (excision) and *Bhedana* (incision) together with its ability to correct *Tridosha* imbalance. *Acharya Vagbhata* similarly regarded *Kshara* as a dependable alternative to surgery, particularly in anatomically delicate sites or where surgery is contraindicated. The *Kashyapa Samhita*, in its *Dwivraneeya Chikitsadhyaya*, records the use of *Ksharasutra* for a condition termed “*Arakeelika*”, an early recognition of the technique for anorectal disorders, while *Acharya Charaka* emphasised the internal therapeutic applications of *Kshara* more than its external use. The *Bhela Samhita* records both internal and external applications.

Adhunika Kala (Modern Period)

The documented history of tonsillitis management spans nearly two thousand years. The Roman physician Celsus, in the first century AD, described surgical removal of the tonsils using sharp instruments followed by vinegar-based rinses, initiating a long tradition of formal documentation of tonsillar disease. Tonsillitis gained wider medical prominence toward the late nineteenth century, an era marked by two notable episodes: the inclusion of quinsy (peritonsillar abscess, a recognised complication of tonsillitis) in the differential diagnosis proposed for the death of President George Washington, and the discussion of tonsillitis in Kean's widely circulated Domestic Medical Lectures, reflecting the disease's shift from a purely clinical concern to one of broad public awareness.

In contemporary practice, *Kshara* continues to hold a firm place in both clinical use and research, being actively employed for *Arshas* (haemorrhoids), *Bhagandara* (fistula-in-ano), *Vrana* (wounds), *Charmakeela* (corns), and *Kadara* (callosities), among other conditions.

Ayurvedic Disease Review of *Tundikeri*

Relevant Anatomical Structures: *Mukha*, *Talu*, and *Kanta*

Tundikeri is described under *Mukha Roga*, but its precise anatomical seat differs between authorities: *Acharya Sushruta* locates it in the *Talu* (palate), while *Acharya Vagbhata* locates it in the *Kanta* (throat). A brief review of *Mukha*, *Talu*, and *Kanta* therefore precedes the disease discussion.

Mukha is the common opening for the respiratory and digestive tracts and is defined as “*Khanyate, Bhakshyate anena iti mukha*” — the organ through which food is taken; food chewed here is mixed with saliva, initiating chemical digestion.

Talu is anatomically related to *jihwa* (tongue), *danta* (teeth), *dantamula* (gums), and *gala/kanta* (throat). *Udakavaha Srotas*, the channels governing water balance, are described as having a thirst centre located just above the level of *Talu*; injury here carries a risk of excessive thirst and even death.

Kanta is physiologically identified with the throat trachea, larynx, and oesophagus and is regarded as a vital gateway for both food (*Ahara*) and air (*Swasa*).

Mukhagata Roga an Overview

Acharya Sushruta enumerated 65 *Mukha Rogas* across 7 *Adhithanas* (anatomical sites); *Acharya Vagbhata* expanded this to 75 *Mukha Rogas* across 8 *Adhithanas*; and *Yogaratanakara* described 67 *Mukha Rogas* across 7 *Adhithanas*, broadly aligned with *Sushruta*'s scheme with minor variation. *Acharya Charaka* did not treat *Mukha Roga* as an independent category, instead referring contextually to *Ekadeshiya Shotha* within the *Trishothiya Adhyaya*.

Classification of *Tundikeri* across Classical Texts

In *Sushruta Samhita*, *Tundikeri* is classified under *Talu Roga*, a placement followed by *Madhava Nidana*, *Yogaratanakara*, *Gada Nigraha*, and *Bhavaprakasha* (Table 1). In *Ashtanga Hridaya*, *Ashtanga Sangraha*, and *Sharangadhara Samhita*, it is instead placed under *Kantagata Roga*, which *Sushruta* enumerates as 17 conditions and *Ashtanga Hridayakara* as 19.

Table 1 *Talugata Rogas* according to classical texts

Acharya / Classical Text	Number of <i>Talugata Rogas</i> enumerated
<i>Acharya Sushruta</i>	9
<i>Acharya Vagbhata</i> (<i>Ashtanga Hridaya/Sangraha</i>)	8
<i>Acharya Sharangadhara</i>	8
<i>Madhavakara</i> (<i>Madhava Nidana</i>)	9
<i>Bhavamishra</i> (<i>Bhavaprakasha</i>)	9

The nine *Talu Rogas* commonly enumerated are *Gala Shundika*, *Tundikeri*, *Mamsa Kachapa*, *Arbuda*, *Adhrusha*, *Mamsa Sanghata*, *Talu Pupputa*, *Talu Sosha*, and *Talupaka*.

Nirukti (Etymology)

Tundikeri is defined as “*Tundikeri Karpasyam Vanakarpasiphalam*”, meaning that the swelling resembles *Vanakarpasika Phalam* (the fruit of wild cotton).

Nidana (Aetiology)

No *Nidana* specific to *Tundikeri* is described in the classics; since the disease falls under *Talugata/Mukharoga*, the general aetiological factors of *Mukharoga* are taken as its *Nidana*, divided into *Bahya Nidana* (external further subdivided into *Aharaja* and *Viharaja Hetu*) and *Abhyantara Nidana* (internal).

Among *Aharaja Hetu*, excessive consumption of fish, buffalo meat, black gram, curd, sugarcane juice, and *Phanita* (jaggery derivatives) predominantly *Madhura* (sweet) or *Amla* (sour) in taste aggravates *Kapha* and *Pitta* and vitiates *Rakta*, creating conditions favourable for disease. *Acharya Kashyapa* grouped the causative factors of *Mukharoga*, *Karnaroga*, and *Pratishyaya* together, identifying weak digestion combined with heavy, sweet, cold, or dry food, sleeping immediately after breastfeeding, bathing after a heavy meal, chronic indigestion, exposure to cold water, excessive talking after meals, and habitual suppression of natural urges as additional risk factors.

Recognised *Viharaja Nidana* include sleeping prone (*Avakshayya*), poor dental hygiene (*Dwishato Dantadhavana*), and neglect of timely *Dhoomapana*, *Vamana*, *Gandoosha*, and *Raktamokshana*, each of which aggravates *Kapha* and *Pitta* locally. Irregular sleep combined with incompatible food further weakens *Agni*, allowing aggravated *Vata* to disturb *Kapha* in the upper body and obstruct the channels of the oral cavity.

Purvaroop and Roopa

Prodromal features specific to *Tundikeri* are not described classically; since it is a *Shotha*-predominant disease, the general prodrome of *Shotha* rising local temperature (*Ushma*) preceded by vascular congestion (*Sirayama*) is applied, along with burning, irritation, and discomfort in *Talu* and *Kantha*.

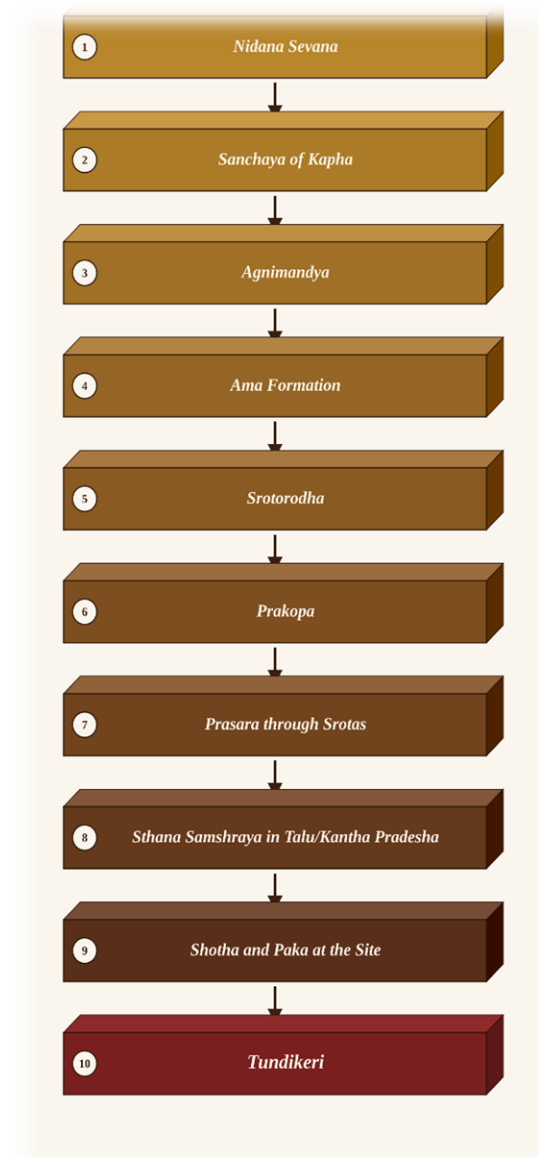
General features of *Mukha Roga* in children, as described by *Acharya Kashyapa* in *Vedanaadhyaya*, include excessive salivation, aversion to breast milk, dullness, pain, and nasal breathing; a child with throat pain (*Kanta Vedana*) may also show constipation on *Sleshma*-predominant intake, mild fever, anorexia, and languor.

According to *Acharya Sushruta*, *Tundikeri* presents with swelling, increase in size, pricking pain, burning sensation, and suppuration an opinion echoed by *Madhava Nidana*, *Gada Nigraha*, and *Bhavaprakasha*. *Yogaratanakara* describes similar features but considers the condition more painful, with *Shula* and *Toda*. *Acharya Vagbhata* describes it as a swelling at the junction of the lower jaw, resembling *Karpasa* fruit, slim, minimally painful, and hard to touch (Table 2).

Table 2: Comparison of the clinical features of *Tundikeri* described by *Acharya Sushruta* and *Acharya Vagbhata*

Feature	Acharya Sushruta	Acharya Vagbhata
Swelling character	<i>Sthula Shopha</i> (large swelling)	<i>Katina Picchila Shopha</i> (hard, firm, slimy)
Pain	<i>Toda</i> (pricking pain)	<i>Mandaruk</i> (mild pain)
Burning sensation	<i>Daha</i> present	Not described
Suppuration	<i>Paka</i> present	Not described

AMPRAPTI (PATHOGENESIS)



A separate *Samprapti* for *Tundikeri* is not classically described and is inferred from its aetiology and *Dosha* involvement. Repeated exposure to causative factors vitiates *Kapha Dosha*, which spreads through the *Srotas* (*Prasara*) and localises in the *Mukha Pradesha* specifically *Talu* and *Kanta* the upper body being the principal seat of *Kapha*. The localised vitiated *Kapha* produces a mildly painful swelling resembling *Karpasa Phala*, culminating, with the involvement of other *Doshas*, in *Tundikeri*.

SAMPRAPTI GHATAKA

Dosha – *Pitta*, *Kapha*;

Dushya – *Rasa*, *Rakta*,

Mamsa; *Srotas* – *Rasavaha*, *Raktavaha*, *Mamsavaha*, *Pranavaha*, *Annavaha*;

Agni – *Jataragni*, *Dhatvagni*;

Srotodushti – Sanga;

Rogamarga – Abhyantara;

Udbhavasthana – Amashaya;

Adhisthana – Mukha;

Vyaktasthana – Kantha.

Sadhyasadhya (Prognosis) and Chikitsa (Management)

According to *Acharya Sushruta*, *Tundikeri* is *Shastra Sadhya* (*Chedana Karma*), an opinion shared by *Yogaratanakara*. *Dalhana* specifies *Bhedana* as the applicable *Shastra Karma*, *Ashtanga Sangraha* indicates *Lekhana Karma*, and *Ashtanga Hridaya* regards it as *Oushadha Sadhya* — overall, *Tundikeri* is considered a *Sadhy Vyadhi* (curable disease).

Because *Kantha* is the pathway of *Prana Vata*, *Acharya Vagbhata* emphasised prompt management of *Kantharoga*, given the risk of respiratory compromise. *Acharya Sushruta*'s protocol comprises *Shastra Karma* (surgical excision) followed by *Pratisarana* (local application of *Maricha*, *Ativisha*, *Patha*, *Vacha*, *Kushta*, and *Kutannata* with honey and *Saindhava Lavana*), *Kavala* (gargling with a *Kashaya* of *Vacha*, *Ativisha*, *Patha*, *Rasna*, *Katurohini*, and *Nimba*), *Dhuma* (fumigation), and a *Yusha* of *Mudga* boiled in alkaline water.

Acharya Vagbhata's protocol for *Kantharoga*, also applicable to *Tundikeri*, includes *Raktamokshana* (bloodletting), *Teekshna Nasya* (errhine therapy), internal *Kashaya* of *Darvi*, *Twak*, *Nimba*, *Tarkshya*, and *Kalinga* (or *Hareetaki* with honey), *Pratisarana* or *Kavala* with a *Kashaya* of *Vyosha*, *Yavakshara*, *Darvi*, *Rasanjana*, *Patha*, *Tejovathi*, *Nimba*, *Saktu*, and *Gomutra*, and local *Lepana* with a lukewarm paste of *Nichula*, *Katabhi*, *Musta*, *Devadaru*, *Mahoushadha*, *Vacha*, *Danti*, and *Murva*. Specific treatment of *Tundikerika* parallels that of *Kaphaja Rohini*: *Pratisarana* with *Katu Varga Dravyas*, and *Nasya/Gandusha* with *Taila* medicated with *Apamarga*, *Madanaphala*, *Shveta*, *Danti*, *Jantughna*, and *Saindhava*.

Pathyapathya

As per *Yogaratanakara*, the *Pathya* (favourable) and *Apathya* (unfavourable) regimen in *Tundikeri* is as summarised in Table 3.

Table 3 *Pathya-Apathya* (favourable and unfavourable regimen) in *Tundikeri*, as per *Yogaratanakara*

Category	Pathya (favourable)	Apathya (unfavourable)
Ahara (diet)	<i>Trunadhanya</i> , <i>Yava</i> , <i>Mudga</i> , <i>Kulattha</i> , <i>Jaangala mamsa rasa</i> , <i>Karavellaka</i> , <i>Patola</i> , <i>Karpura</i> <i>jala</i> , <i>Ushnajala</i> , <i>Tambula</i> , <i>Khadira</i> , <i>Ghrita</i> , <i>Katutikta dravya</i>	<i>Amlarasa dravyas</i> , <i>Abhishyandi</i> <i>ahara</i> , <i>Matsya</i> , <i>Dadhi</i> , <i>Kshira</i> , <i>Guda</i> , <i>Masha</i> , <i>Ruksha-kathina</i> <i>padartha</i>
Vihara (regimen)	<i>Swedana</i> , <i>Virechana</i> , <i>Vamana</i> , <i>Gandusha</i> , <i>Pratisarana</i> , <i>Kavala</i> , <i>Raktamokshana</i> , <i>Nasya</i> , <i>Dhumapana</i> , <i>Shastra</i> , <i>Agnikarma</i>	<i>Diwaswapna</i> , <i>Shitala jala use</i> , <i>Adhomukha shayana</i> , <i>Snana</i>

Modern Disease Review

Anatomical Basis: Waldeyer's Ring and the Palatine Tonsil

The tonsils form a ring of lymphoepithelial tissue guarding the entrance to the upper aerodigestive tract, classically termed Waldeyer's ring after the German anatomist who first described it. The ring comprises the paired palatine tonsils, the single pharyngeal tonsil (adenoid), the lingual tonsil, and the paired tubal tonsils, together with scattered mucosa-associated lymphoid tissue along the posterior pharyngeal wall. Among these, the palatine tonsils are of greatest clinical relevance in paediatric otolaryngology and, correspondingly, in the Ayurvedic understanding of Tundikeri, being the commonest site of infective and hypertrophic pathology in childhood.

The four components of the inner ring differ in location, epithelial lining, crypt architecture, and capsular development (Table 4).

Table 4 Comparative anatomical features of the four components of Waldeyer's ring

Component	Location	Epithelial lining	Crypts	Capsule
Palatine tonsils	Tonsillar fossa, between palatoglossal and palatopharyngeal arches	Stratified non-keratinised squamous	Present (15–20)	Well-defined fibrous hemicapsule
Pharyngeal tonsil (adenoid)	Roof and posterior wall of nasopharynx	Pseudostratified ciliated columnar (respiratory)	Absent (surface folds instead)	Incomplete/absent
Lingual tonsil	Submucosa of posterior one-third of tongue	Stratified non-keratinised squamous	Present, fewer and shallower	Thin/incomplete
Tubal tonsils	Around pharyngeal opening of auditory tube	Ciliated pseudostratified columnar	Absent	Absent

The palatine tonsil, an ovoid lymphoid mass in the tonsillar fossa on the lateral oropharyngeal wall, measures approximately 20–25 mm vertically and 10–15 mm transversely in the adult, though it is proportionately larger in children, reflecting the physiological lymphoid hyperplasia of childhood. Its medial surface, pitted by 15–20 crypts (the largest being the intratonsillar cleft), is directly visible on oral examination and serves as a major site of antigen sampling as well as of debris accumulation and exudate formation in acute tonsillitis. The lateral (deep) surface is invested by a fibrous capsule separated from the underlying superior constrictor muscle by loose areolar tissue, the principal surgical cleavage plane during tonsillectomy and the typical site of peritonsillar (quinsy) abscess formation. The tonsil's upper pole abuts the soft palate beneath the plica semilunaris, while its lower pole, continuous with the tongue base via the suspensory ligament, is the point of entry of the tonsillar branch of the facial artery, the vessel most often ligated during tonsillectomy.

The palatine tonsil receives an unusually rich arterial supply from five branches of the external carotid artery (Table 5), which accounts both for its tendency to bleed briskly when inflamed or manipulated and for the need for meticulous haemostasis during tonsillectomy. Venous drainage is via the paratonsillar vein into the pharyngeal venous plexus and thence the internal jugular vein; lymphatic drainage passes chiefly to the jugulodigastric (tonsillar) node, which characteristically enlarges and becomes tender in tonsillitis. Sensory innervation is via the glossopharyngeal nerve (accounting for referred otalgia in acute tonsillitis) and the lesser palatine nerve.

Table 5 Arterial supply of the palatine tonsil

Artery	Parent vessel	Point of entry / note
Tonsillar branch of facial artery	Facial artery (external carotid)	Principal artery; enters lower pole; most often ligated in tonsillectomy
Ascending palatine artery	Facial artery	Reaches upper pole along superior constrictor
Ascending pharyngeal artery	External carotid artery	Supplies posterior aspect of tonsillar bed
Dorsal lingual branches	Lingual artery	Supply lower pole near tonsillolingual sulcus
Greater (descending) palatine branch	Maxillary artery	Descends through soft palate to upper pole

Physiology and Age-related Immunological Behaviour

The tonsils constitute the first organised mucosal immune barrier at the oropharyngeal gateway, acting through local immunity and immune surveillance. Specialised epithelium containing microfold (M) cells and antigen-presenting cells transports antigen to underlying lymphoid follicles, where B lymphocytes proliferate into plasma cells producing secretory IgA (with smaller amounts of IgG and IgM), while macrophages phagocytose invading organisms. On exposure to a large antigenic load, follicular B-cell proliferation drives lymphoid hyperplasia, and activated lymphocytes enter the circulation, with coordinated participation of dendritic cells, macrophages, memory cells, and CD4⁺ helper and regulatory T cells contributing to systemic immunity.

Tonsillar immunological activity peaks between approximately 4 and 10 years of age, coinciding with the period of greatest environmental antigen exposure, and undergoes physiological involution after puberty with declining B-cell activity and a relative increase in T lymphocytes. Clinically and epidemiologically, tonsillectomy or adenoidectomy performed for appropriate indications has not been shown to produce clinically significant impairment of systemic immunity, as the remaining components of Waldeyer's ring and other mucosa-associated lymphoid tissue compensate.

Tonsillitis: Aetiology, Classification, and Epidemiology

Tonsillitis may be classified broadly into inflammatory disease (acute including acute tonsillitis, peritonsillar/intratonsillar/lingual tonsillar abscess and chronic/recurrent or chronic specific tonsillitis such as diphtheritic, syphilitic, or tubercular forms) and tumours (benign or malignant). Bacterial causes account for the majority of cases, with *Streptococcus pneumoniae* responsible for roughly 90% of bacterial tonsillitis, alongside *Staphylococcus*, *Pneumococcus*, and diphtheroid species; viral causes include influenza,

parainfluenza, and Epstein-Barr virus. Transmission occurs via respiratory droplets and contact with infected secretions, with immunocompromise increasing both susceptibility and severity. Three clinical types are recognised acute (bacterial or viral), recurrent (four to seven episodes per year), and chronic (persisting if untreated, usually bacterial).

Chronic tonsillitis, often a sequel of recurrent acute episodes (typically four to six or more per year), arises from a combination of physiological lymphoid hypertrophy in early childhood, recurrent β -lactamase-producing bacterial infection, allergic upper-respiratory disease, and environmental factors such as passive tobacco smoke exposure. Three morphological types are described: chronic follicular tonsillitis (cheesy debris visible as pale yellow spots within the crypts), chronic parenchymatous tonsillitis (marked lymphoid overgrowth that may disrupt speech, swallowing, or breathing occasionally meeting in the midline as “kissing tonsils”), and chronic fibroid tonsillitis (small, fibrosed, scarred tonsils with recurring sore throat). Clinical features include recurrent sore throat, dysphagia, throat irritation with cough, low-grade fever, malaise, halitosis, and hawking; examination may reveal expressible caseous material from the crypts, anterior pillar congestion, and persistently enlarged, tender jugulodigastric lymph nodes.

Tonsillar size is conventionally graded using the Brodsky system: Grade 0 (fully within the fossa) through Grade 4 (occupying more than 75% of oropharyngeal width, with potential airway obstruction).

A 2022 systematic review and meta-analysis pooling 26 international studies estimated the incidence of sore throat in children at approximately 82 episodes per 100 child-years, with group A streptococcal sore throat occurring at roughly 22 episodes per 100 child-years, and calculated that around 288.6 million episodes of Strep A sore throat occur annually among children aged 5–14 years, with roughly one in three children affected at least once yearly; no significant difference was found between low/middle- and high-income settings, though under-reporting in resource-limited regions may mask true burden. Global Burden of Disease analyses classify tonsillitis under upper respiratory tract infections (ICD-10 J00–J06) and confirm a rising trend in paediatric upper respiratory infection from 1990 to 2021, concentrated in South Asia and other low- and lower-middle-income regions. Indian tertiary-centre surveillance shows tonsillitis in children to be polymicrobial, with *Streptococcus viridans*, group A β -haemolytic streptococci, *Streptococcus pneumoniae*, and *Staphylococcus aureus* as common aerobic isolates and *Peptococcus* and *Bacteroides* species recovered anaerobically from deep tonsillar tissue; chronic tonsillitis accounts for an estimated 15–16% of outpatient ENT diagnoses, with figures varying by population and diagnostic criteria. Indian paediatric and ENT literature consistently notes downstream implications of recurrent tonsillitis — school absenteeism, risk of rheumatic fever and post-streptococcal sequelae, and, where adenoidal hypertrophy coexists, obstructive symptoms including mouth breathing and sleep-disordered breathing.

Complications and Management

Recognised complications of chronic tonsillitis include peritonsillar, parapharyngeal, or retropharyngeal abscess; cervical (jugulodigastric) abscess; post-streptococcal glomerulonephritis; acute and chronic suppurative otitis media; dysphagia; septic shock; and contiguous spread of infection, notably via the Eustachian tube. Medical management includes breathing exercises, decongestant/saline or steroid nasal drops, antihistamines, and antibiotics for associated infection, with attention to coexisting dental, nasal, or sinus disease. Tonsillectomy the second most frequently performed paediatric surgical procedure is indicated when tonsils interfere with speech, swallowing, or respiration, or cause recurrent infection.

Absolute indications for tonsillectomy include recurrent throat infection (seven or more episodes in one year, five per year for two years, three per year for three years, or two or more weeks of lost school/work in a year), peritonsillar abscess (surgery deferred 4–6 weeks after treatment), febrile seizures attributable to tonsillitis, obstructive tonsillar hypertrophy, and suspected malignancy. Relative indications include diphtheria or

streptococcal carrier states unresponsive to antibiotics, halitosis unresponsive to medical treatment, and recurrent streptococcal tonsillitis in a patient with valvular heart disease; tonsillectomy may also be performed as part of palatopharyngoplasty, glossopharyngeal neurectomy, or styloid process excision. Contraindications include haemoglobin below 10 g%, active upper respiratory infection, age under three years, cleft palate, bleeding disorders, poliomyelitis epidemics, uncontrolled systemic disease, and menstruation.

Complications of tonsillectomy are classified as immediate (primary and reactionary haemorrhage, injury to adjacent structures, dental injury, aspiration, facial oedema, surgical emphysema) and delayed (secondary haemorrhage, typically between the fifth and tenth postoperative day; infection; pulmonary complications; scarring; residual tonsillar tags with recurrent infection; and compensatory hypertrophy of the lingual tonsil, minimised by complete excision of the plica triangularis).

Drug Review

Since *Kapha* and *Rakta* predominance is central to *Tundikeri*, *Kapharaktahara* and *Shophahara* therapy is indicated for *Samprapti Vighatana*. Three formulations with direct or contextual classical relevance were reviewed: *Apamarga Kshara* (local application), *Vachadi Kwatha Kavala* (gargle), and *Kaishora Guggulu* (oral).

Kaishora Guggulu

Kaishora Guggulu is classically referenced in the *Vati Kalpanadhyaya* of *Sharangadhara Samhita* and the *Vatarakta Adhyaya* of *Chakradatta*, in both of which it is indicated for *Shopha* (oedema), underscoring its anti-inflammatory potential and forming the rationale for its selection here for its *Shophahara* action in *Tundikeri*. Its principal ingredients (*Shuddha Guggulu*, *Amalaki*, *Haritaki*, *Bibhitaki*, and *Guduchi*, together with *Trikatu*, *Trivrit*, *Vidanga*, and *Danti churna*) are predominantly *Tridosahara*, with individual *Vata*-, *Kapha*-, and *Pitta*-pacifying actions (Table 6).

Table 6 Principal ingredients of *Kaishora Guggulu*

Ingredient	Botanical name	Rasa	Karma
<i>Shuddha Guggulu</i>	<i>Commiphora mukul</i>	<i>Tikta, Katu</i>	<i>Vata Shamaka</i>
<i>Amalaki</i>	<i>Terminalia (Emblica) chebula/officinalis*</i>	<i>Pancharasa</i>	<i>Tridosahara</i>
<i>Haritaki</i>	<i>Terminalia chebula</i>	<i>Pancharasa</i>	<i>Tridosahara</i>
<i>Bibhitaki</i>	<i>Terminalia bellirica</i>	<i>Kashaya</i>	<i>Tridosahara</i>
<i>Guduchi</i>	<i>Tinospora cordifolia</i>	<i>Tikta, Kashaya</i>	<i>Tridosahara, Vata Shamaka</i>
<i>Trikatu, Trivrit, Vidanga, Danti (churna)</i>	<i>Piper nigrum, P. longum, Zingiber officinale, Operculina turpethum, Embelia ribes, Baliospermum montanum</i>	<i>Katu (mostly)</i>	<i>Kapha-Vata Shamaka, mild Rechana</i>

Preparation follows the classical *Guggulu Paka* method: a *Triphala-Guduchi Kashaya* is reduced to one-quarter volume, *Shuddha Guggulu* is cooked into it to *Gudapaka Avastha*, the remaining fine powders (*Triphala*, *Guduchi*, *Trikatu*, *Vidanga*, *Danti*, *Trivrit*) are incorporated, and the mass is rolled into *Vati* while warm. The general dose used is 3–4 tablets (9–12 g) daily with *Ushnodaka*.

Apamarga Kshara

Apamarga (*Achyranthes aspera* Linn. family *Amaranthaceae*) is classified by *Charaka* under *Shirovirechanopaga*, *Krimighna*, and *Vamanopaga Gana*, and by *Sushruta* and *Vagbhata* under *Arkadi Gana*.

Pharmacodynamically it is *Katu-Tikta* in *Rasa*, *Laghu*, *Ruksha*, *Teekshna* in *Guna*, *Ushna* in *Veerya*, *Katu* in *Vipaka*, and *Kaphavata Shamaka*, with broad indications including *Shotha* and *Vrana*.

Preparation follows classical *Kshara Kalpana*: the whole plant (*Panchanga*), collected in season and sun-dried, is incinerated; the ash is soaked overnight in water and/or cow's urine, filtered repeatedly, and the filtrate boiled until it becomes brown, slimy, and pungent, yielding *Ksharodaka*, further processed as required into *Mridu*, *Madhyama*, or *Tikshna Kshara*. Modified standardisation protocols have replaced the traditional 21-fold cloth filtration with cotton-wick followed by Whatman filter-paper filtration to improve reproducibility. *Kshara* in general possesses *Tikshna Guna* and *Ushna Veerya*, is used in cauterisation (*Dahana Karma*), and, taken internally in judicious doses, is indicated in *Gulma*, *Arsha*, *Grahani*, and urinary disorders, besides possessing germicidal, appetising, digestive, and wound-cleansing (*Vrana Shodhana-Ropana*) properties. The general dose of *Kshara* ranges from 2 *Ratti* (250 mg) to 8 *Ratti* (1 g), individualised to the patient's tolerance.

Vachadi Kwatha Kavala

Vachadi Kavala is referenced in the *Chakradatta Chikitsa Sangraha*, specifically within the *Taluroga Chikitsadhyaya* of the *Mukharoga Chikitsa* chapter a placement directly relevant to the *Talu*-adjacent pathology of *Tundikeri*. It comprises *Vacha*, *Ativisha*, *Patha*, *Rasna*, *Katuka*, and *Nimba* in equal parts (Table 7), predominantly *Tikta-Katu* in *Rasa* and *Laghu-Ruksha* in *Guna*, broadly *Kapha-Pitta Shamaka*.

Table 7 Ingredients of *Vachadi Kavala*

Ingredient	Botanical name	<i>Rasa</i>	<i>Guna</i>	<i>Veerya</i>	<i>Vipaka</i>
<i>Vacha</i>	<i>Acorus calamus</i> Linn.	<i>Katu, Tikta</i>	<i>Laghu, Tikshna, Sara</i>	<i>Ushna</i>	<i>Katu</i>
<i>Ativisha</i>	<i>Aconitum heterophyllum</i> Wall.	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>
<i>Patha</i>	<i>Cissampelos pareira</i> Linn.	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>
<i>Rasna</i>	<i>Pluchea lanceolata</i>	<i>Madhura, Tikta</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>
<i>Katuka</i>	<i>Picrorhiza kurroa</i>	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>
<i>Nimba</i>	<i>Azadirachta indica</i>	<i>Tikta, Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>

The *Kwatha* is prepared in the standard 1:16:1/8 ratio (drug:water, reduced to one-eighth) over *Manda Agni*, filtered, and used lukewarm for *Kavala* retained in the mouth (*Kavala Dharana*) and gargled for 5–10 minutes before expectoration.

CONCLUSION

Classical *Ayurvedic* literature offers only a fragmented, cross-textually inconsistent description of *Tundikeri*, with *Sushruta* and *Vagbhata* differing even on its primary site of origin. Nonetheless, a coherent clinical picture emerges when the disease is read through the lens of *Mukharoga* in general: a *Kapha-Pitta* predominant, *Rasa-Rakta-Mamsa* affecting, *Sadhya* condition, presenting as a mildly painful, cotton-fruit-shaped swelling of the *Talu/Kantha* region that corresponds closely to the modern description of chronic/recurrent tonsillitis in children. The anatomical, immunological, and clinical literature on the palatine tonsil substantiates why this region is particularly vulnerable to recurrent inflammatory disease in childhood, and provides a physiological basis for interpreting the *Kapha-Meda* component of hypertrophic presentations. *Apamarga Kshara*, *Vachadi Kwatha Kavala*, and *Kaishora Guggulu* each carry direct or strongly contextual classical indications for *Shopha* and *Mukha/Taluroga*, offering a texts-supported rationale for their combined use, though controlled clinical evidence in *Tundikeri* specifically remains limited and is needed to establish efficacy beyond the classical and pharmacodynamic rationale reviewed here.

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