

TUNDIKERI – AN AYURVEDIC REVIEW WITH MODERN CLINICAL CORRELATION AND MANAGEMENT

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ABSTRACT

Tonsillitis is a common inflammatory disorder of the oropharynx, most frequently observed in the pediatric age group. In contemporary medical practice, treatment is mainly symptomatic, involving antibiotic therapy, while surgical management in the form of tonsillectomy is advised for chronic and recurrent cases. *Ayurveda*, the traditional Indian system of medicine, describes a comparable condition under *Mukha Roga* (diseases of the oral cavity) known as *Tundikeri*. Classical Ayurvedic texts, particularly the *Sushruta Samhita*, detail this condition with etiological factors, pathogenesis, and clinical features that closely resemble those of tonsillitis. The present review aims to examine the classical concept of *Tundikeri*, correlate its *Nidana* (etiology), *Samprapti* (pathogenesis), and *Lakshana* (clinical features) with modern tonsillitis, and explore the comprehensive management approaches described in *Ayurveda*.

KEY WORDS: Tonsillitis, *Tundikeri*, *Mukha Roga*.

INTRODUCTION

In modern medicine, tonsillitis is defined as inflammation of the palatine tonsils, which are collections of lymphoid tissue located on the lateral walls of the oropharynx. The condition is commonly caused by viral infections, although bacterial pathogens – Streptococcus haemolyticus, Haemophilus influenzae, Pneumococcus etc. also play a significant role. Clinical manifestations include sore throat, fever, dysphagia, and cervical lymphadenopathy. Acute tonsillitis is generally managed with analgesics and antibiotics when indicated, whereas chronic or recurrent tonsillitis, which may lead to complications such as peritonsillar abscess (quinsy) or airway obstruction, often requires tonsillectomy. Ayurvedic literature under the branch of *Shalakya Tantra*, which deals with *Urdhvajatrugata Roga* (diseases occurring above the clavicle), describes a condition known as *Tundikeri* that shows close correlation with tonsillitis. *Acharya Sushruta* classified *Tundikeri* under *Talugata Roga*^[1] (diseases of the palate), while *Acharya Vagbhata* included it under *Kanthagata Roga*^[2] (diseases of the throat). This review attempts to interpret this classical Ayurvedic concept in the context of modern clinical understanding.

AIMS AND OBJECTIVES

- To conduct a literary review of the concept of *Tundikeri* from classical Ayurvedic texts.
- To establish a clear correlation between the clinical entity of *Tundikeri* and modern tonsillitis.
- To review the spectrum of management principles for *Tundikeri*, from conservative to surgical

Tundikeri

Etymology

- According to the Laxicons *Sabdasathana Mahanidi*, *Vachaspathyama*, and *Medinikosha*, the etymology and meaning of *Tundikeri* is:

Word *Tundikeri* is derived from the root "*Tunda*" meaning *Mukha*, which, when prefixed by '*Kam*', makes the word '*Tunda Kam*'. The word *Tunda Kam* is again prefixed by eryatic, which gives rise to the word *Tundikeri*.

- *Tundi* - A beak, snout, prominent navel (M. M. Williams)
- *Tundi Kera* - A large boil on the palate (M. M. Williams)
- A cotton plant (M. M. Williams)
- *Tundikeri* means- Ruptured fruit of *Gossypium herbaceum* (*Karpas*)

- *Raktaphala*, *Bimbika*, *Badara*. So, *Tundikeri* disease resembles to above features.

Tundikeri is identified as a disorder affecting the *Talu* (palate) according to *Acharya Sushruta* and the *Kantha* (throat) according to *Ashtanga Hridaya*, categorized under *Mukha Roga* (oral diseases) by *Yogaratanakara*. It is predominantly caused by the vitiation of *Kapha* and *Rakta Doshas*. Clinically, it presents as a swelling resembling the fruit of the *Gossypium* plant, characterized by mild pain, burning sensation, and occasionally suppuration. This swelling typically occurs near the *Hanusandhi* (mandibular joint).

***Nidana & Samprapti* (Etiology and Pathogenesis)**

Nidana refers to the causative factors contributing to disease manifestation and serves as a key diagnostic tool. While specific *Nidana* for *Tundikeri* are not explicitly documented, general causative factors for *Mukha Roga* (oral diseases) are applicable.

***Aharaja* (Dietary Factors)**

- Consumption of fish, pork, and beef
- Intake of unripe radish (*Raphanus sativus*)
- Use of *Kshara* (alkaline substances)
- Consumption of *Masha* (*Phaseolus mungo*)
- Frequent intake of soups prepared from lentils or pulses
- Consumption of curd and milk
- Intake of *Shukta* (fermented sour and astringent liquid)
- Use of sugarcane juice (*Saccharum officinarum*)
- Consumption of *Phanita* (unrefined sugar or concentrated sugarcane juice)
- Overeating
- Consumption of dry food items

***Viharaja* (Lifestyle Factors)**

- Improper sleeping postures.
- Poor oral hygiene due to irregular or inadequate cleaning of teeth and oral cavity.
- Failure to perform regular medicated smoking (*Dhoomapana*).
- Absence of gastric cleansing practices (*Vamana*).
- Avoidance or neglect of therapeutic bloodletting (*Raktamokshana*) when indicated.
- Excessive shouting.
- Sudden emotional outbursts such as agitation or excitement.

These causative factors lead to vitiation of the *Doshas*, with *Kapha* being predominantly affected. The accumulation of vitiated *Kapha* in the body contributes to the pathogenesis of *Mukha Roga* (oral diseases), including *Tundikeri*.^[3]

Purva Roopa (Prodromal Symptoms)

Purva Roopa refers to early, subtle symptoms indicating the initiation of disease, prior to its full manifestation. While specific prodromal signs of *Tundikeri* are not distinctly mentioned in the classical texts, some indicative features include

- Mild throat pain
- Throat irritation
- Presence of mild swelling or a localized mass with congestion

These symptoms arise when the vitiated *Doshas* spread throughout the body and accumulate in a site favourable for disease manifestation, particularly in the oral region (*Mukha*). At this stage, the disease remains in its latent or *Sthana Sanshraya* phase, not yet fully expressed.

Roopa (Clinical Features)

Classical *Ayurvedic* texts provide detailed descriptions of *Tundikeri*'s symptoms:

- *Sthula Shopha* – prominent or large swelling
- *Toda* – pricking type of pain
- *Prapaka* – severe inflammation or congestion in the region of the palate (*Talu*), possibly with suppuration (as described by *Sushruta*)

According to *Vagbhata*, additional features include

- *Picchila* – slimy consistency
- *Manda Vedana* – dull or mild pain
- *Kathina* – induration or hardness
- Swelling resembling the fruit of the cotton plant (*Karpaasa Phala*), located in the throat region near the jaw joint (*Hanusandhi*).

Pathogenesis (Samprapti)

Samprapti refers to the sequence through which a disease develops, including the vitiation, spread, and localization of *Doshas*. It explains how these vitiated *Doshas* circulate through the body, settle in a susceptible area, and give rise to disease manifestations. *Acharya*

Sushruta has elaborated this process through the concept of *Shat Kriyakala*—six stages that represent the progressive pathological states of disease development.

Samanya Samprapti

Udbhava - *Aamashya Samutha* (as it is *Kapha* dominating disease)

Sanchara - *Rasayni*

Adishthana - *Mansa Dhatu*

Dosha - *Kapha*

Dushya - *Rasa, Rakta, Mansa*.

Sroatsa - *Rasvahi, Raktavahi, Mansvahi*.

Dushti - *Sanga, Vimarggamana*

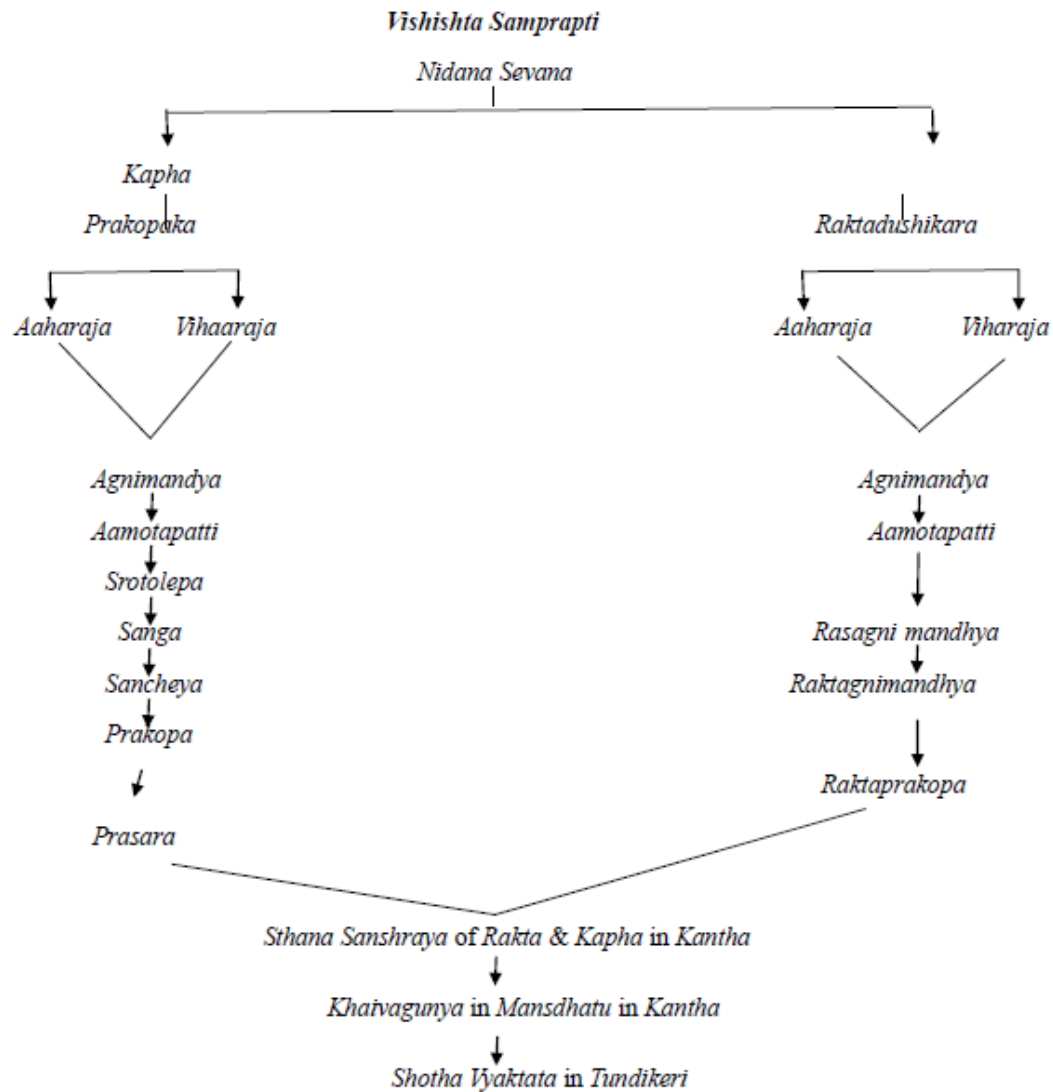
Vyakt Sathana - *Talu (Sush.)*, *Kantha (Vag.)*

Rogmarga - *Bahya Rogmarga*

Agni - *Jatharagni, Rasagni, Raktagni, Mansagni*

Vyadi Swabhava - *Ashu (Acute)*, *Chirkari (Chronic)*

Pratyatma Lakshana - *Karpasphala Sannibha Shotha*



Sadhya Asadhyata

Tundikeri is considered under *Shashtra Sadhya Roga*^[4]

Pathya Apathya

Pathya^[5]

Viharaja cum Therapeutic

Procedures to be adopted

Dietary food to be adopted

• <i>Swedna</i> - Sudation	• <i>Yava</i> - <i>Hordeolum vulgare</i>
• <i>Virechna</i> - Purgation	• <i>Moonga</i> - <i>Phaseolus aureus</i>
• <i>Vamana</i> - Emesis	• <i>Kulatha</i> - <i>Dolichos biflorus</i>
• <i>Gandoosha</i> - Gargling	• <i>Jaangala Mansa Rasa</i> - Meat soup from animals living in areas where there are negligible water sources.
• <i>Pratisarana</i> - Local application	• <i>Karvellaka</i> - <i>Momordica charantia</i>
• <i>Kavala</i> - Gargling	• <i>Patola</i> - <i>Trichosanthes dioica</i>

• <i>Raktavisravana</i> - Venesection	• <i>Baala Mooli</i> - <i>Raphanus Sativus</i>
• <i>Nasya</i> - Medication by nasal Route.	• <i>Karpooora Jala</i> - Camphor water
• <i>Dhoompaana</i> - Medicated smoking	• <i>Taamboola</i> - <i>Piper betal</i>
• <i>Agni Karma</i> - Parasurgical measure by means of applying heat	• <i>Ushnajala</i> - Hot water

***Apathya*^[6]**

• <i>Dantdhavana</i> – Toothbrushing	• <i>Amla Rasa</i> - Sour eatables
• <i>Sanaana</i> – Bathing	• <i>Kathina aahara</i> - Hard food
• <i>Adhomukha Shayana</i> - Lying in prone position	• <i>Rookshaanna</i> - Stale food
• <i>Divasvapna</i> - Sleeping during daytime	• <i>Mataasya Aanoop Maansa</i> – Meat of aquatic animals
	• <i>Dahi, Kshira</i> - Curd, milk
	• <i>Guda</i> – Jaggery
	• <i>Maasha</i> - <i>Phaseolus mungo</i>
	• <i>Guru Aabhishyand Kari Dravya</i> -Heavy food

Medicinal and Surgical Treatment of *Mukha Roga* comprising *Tundikeri*, in different texts has been briefly described as

General treatment**I. *Charaka Samhita*^[7]**

Dhoompana (Medicated smoking), *Pradhamana* (Insufflation of fine medicinal powders into the nasal cavity), *Virechana* (Purgation), *Vamana* (Emesis), *Langhana* (light dietary regimen). *Dosha Nashaka Anupana* (Use of specific adjuvants to neutralize aggravated *Doshas*).

Formulations described

- | | |
|-----------------------------|----------------------------|
| 1. <i>Pippalyadi Churna</i> | 2. <i>Kshara Gutika</i> |
| 3. <i>Kalaka Churna</i> | 4. <i>Peetaka Churna</i> |
| 5. <i>Mridvikadi Churna</i> | 6. <i>Pathadi Churna</i> |
| 7. <i>Katukadi Kwatha</i> | 8. <i>Khadiradi Gutika</i> |

II. *Sushruta Samhita*^[8]

Acharya Sushruta has not mentioned the General treatment of *Mukha Roga*. He has mentioned the surgical treatment of *Tundikeri* similar to that of *Galshundika*.

1. After giving incision, excision of the *Tundikeri* is done, followed by *Pratisarana* (local application) of *Maricha* (*Piper nigrum*), *Patha* (*Cissampelos pareira*), *Ativisha* (*Aconitum*

heterophyllum), *Vacha* (*Acorus calamus*), *Kustha* (*Saussurea lappa*), *Aralu* (*Ailanthus excelsa*), and *Saindhava Lavana* (Rock salt).

2. *Kavala* (Gargling) with decoctions of: *Vacha* (*Acorus calamus*), *Ativisha* (*Aconitum heterophyllum*), *Patha* (*Cissampelos pareira*), *Rasna* (*Pluchea lanceolata*), *Kutki* (*Picrorhiza kurroa*), and *Nimba* (*Azadirachta indica*).
3. *Dhoomapana* (Medicated Fumigation) using a *Varti* (fumigatory stick) made from: *Hingu* (*Balanites roxburghii*), *Kinnihi* (*Albizia procera*), *Danti* (*Baliospermum montanum*), *Nishotha* (*Operculina turpethum*), *Devadaru* (*Cedrus deodara*).
4. *Yavakshara* (alkali derived from *Hordeum vulgare*) mixed with *Moong* (*Phaseolus aureus*) *Yoosha* in meal.

III. *Ashtanga Hridya*^[9]

In afebrile conditions of *Kantha Roga*, the following therapies are advised:

- *Raktamokshana* – Bloodletting, especially in cases with localized congestion or inflammation.
- *Tikshna Nasya* – Strong medicated nasal drops to clear accumulated *Doshas* in the head and neck region.
- *Gandusha* – Oil pulling or holding medicated liquids in the mouth.
- *Pratisarana* – Rubbing of herbal powders or pastes over affected areas.

Decoctions (*Kwathas*)

- *Darvi Twaka* (*Berberis aristata*), *Nimba Twaka* (*Azadirachta indica*), *Rasvata* (Extract of *Berberis aristata*), *Indrayava* (*Holarrhena antidysenterica* seeds)
- *Haritaki* (*Terminalia chebula*) decoction mixed with *Madhu* (honey).
- *Triphala* (*Terminalia chebula*, *Terminalia bellirica*, *Emblica officinalis*), *Trikatu* (*Piper longum*, *Piper nigrum*, *Zingiber officinale*), *Yavakshara* (alkali prepared from *Hordeum vulgare*), *Darvi Twaka* (*Berberis aristata*), *Chitraka Moola* (*Plumbago zeylanica*), *Rasvata* (extract of *Berberis aristata*), *Patha* (*Cissampelos pareira*), *Tejbala* Seeds (*Zanthoxylum armatum*), *Nimba Patra* or *Chhaala* (*Azadirachta indica*) heated in *Shukta* (fermented vinegar) and *Gomutra* (cow's urine). These are used individually or in combination as gargles (*Kawala*), pills (*Vati*), or local applications (*Pratisarana*) to reduce swelling and infection.
- For Local Application in *Shotha* (Inflammation) and *Vedana* (Pain): A paste prepared with water using the following ingredients is applied: *Jalavetasa* (*Salix tetrasperma*), *Shveta*

Aparajita (Clitoria ternatea), Mustaka (Cyperus rotundus), Devadaru (Cedrus deodara), Shunthi (Zingiber officinale), Vacha (Acorus calamus), Danti (Baliospermum montanum), Moorva (Bauhinia vahlii).

Formulations

- | | |
|-------------------------|----------------------|
| 1. Kshudradi Kawala | 2. Khadiradi Taila |
| 3. Patoladi Kwatha | 4. Darvighana Kwatha |
| 5. Khadiradi Gandusha | 6. Khadiradi Gutika |
| 7. Kalaka Churna | 8. Peetaka Churna |
| 9. Dviksharadi Raskriya | 10. Haritaki |

Specific Treatment of *Tundikeri* (Ashtanga Hridya, Uttara Tantra 22/ 62)

Surgical treatment of *Tundikeri* is similar to that of *Rohini*.

- *Svedana* (Fomentation) externally and *Upanaha* (Medicated paste) internally around the throat.
- *Lekhana* (Scraping) of the lesion with a nail embedded with *Lavana* or using *Angulishastra* (finger-shaped surgical instrument)
- *Pratisarana* (Local application) with *Trikatu* and other pungent (*Katu*) *Dravyas*. *Nasya* and *Gandusha* using medicated oil prepared from: *Aparajita (Clitoria ternatea)*, *Apamarga Beej (Achyranthes aspera)*, *Vidanga (Embelia ribes)*, *Saindhava Lavana* (Rock salt).

IV. Yog Ratnakara^[10]

Treatment of *Tundikeri* is the same as *Galshundika*.

- *Katukadi Kwatha*- *Katuki*, *Ateesa*, *Daruharidra*, *Patha*, *Mustaka*, *Indrjau* with an equal amount of *Gomutra*.
- *Darvyadi Kwatha*- *Darvi*, *Twaka*, *Neem*, *Takshrya*, and *Indrajau* in equal amounts, and *Haritaki Kwatha* with *Madhu*.
- *Vataja Gala Roga*: Mixture of *Munnaka (Vitis vinifera)*, *Kutki (Picrorhiza kurroa)*, *Shunthi (Zingiber officinale)*, *Maricha (Piper nigrum)*, *Pippali (Piper longum)*

Administration: Powdered in equal parts and administered with *Madhu* (honey).

- *Pittaja Gala Roga*: Mixture of *Daruharidra (Berberis aristata)*, *Dalchini (Cinnamomum verum)*, *Haritaki (Terminalia chebula)*, *Bibhitaki (Terminalia bellirica)*, *Amalaki (Embellica officinalis)*, *Mustaka (Cyperus rotundus)*

Administration: Powdered in equal proportions and taken with *Madhu* (honey).

- *Kaphaja Gala Roga*: Mixture of *Patha* (*Cissampelos pareira*), *Rasanjana* (Extract of *Berberis aristata*), *Durva* (*Cynodon dactylon*), *Tejbala* (*Zanthoxylum armatum*)

Administration: Given in powdered form with *Madhu* (honey).

- *Raktamokshana* – Bloodletting
- *Tikshana Nasya*

V. Bhav Prakasha^[11]

Surgical treatment of *Tundikeri* is given similar to that of *Galshundi*, with somewhat different surgical steps.

VI. Sharangdhara Samhita^[12]

No treatment specifically described. Certain formulations are having indication for *Mukha Roga* are

1. *Drakshaarishta*
2. *Mradvikaarishta*
3. *Mayoora Ghrita*
4. *Triphla Moudaka*
5. *Irimejadi Taila*

VII. Chakradutta^[13]

1. *Rakta mokshana*
2. *Nasya* with *Tikshana Dravya*.
3. *Kashaya* - *Kutki*, *Atees*, *Devdaaru*, *Patha*, *Mustaka*, *Indrayava* with cow urine.
- *Daruhaldi*, *Neem Chaal*, *Rasount*, *Indrayava Kashaya* with *Madhu*.
- *Harara Kashaya* with *Madhu*.
4. *Kaalaka Churna*
5. *Pippalyadi Churna*
6. *Peetaka Churna*
7. *Yavagrajadi Kwatha*
8. *Dashmoola Kwatha*
9. *Gandoosha* with milk, *Ikshurasa*, cow urine, *Mastu*, *Amla Rasa*, *Kanji*, *Taila*, ghee.
10. *Kshara Gutika*
11. *Harara* powder made in cow urine, *Saunph*, *Kootha*, *Sugandhbala* powder (*Pavonia odorata*).
12. *Kulathi yoosha*, Dry radish.
13. Isolated use of *Harara*

VIII. Bhaishajya Ratnavali^[14]

1. *Raktamokshna* and *Tikshna Dravya Nasya*.
2. *Daruharidra*, *Twaka*, *Nimbatwaka*, *Draksha*, and *Indrayava* equal amount- *Kwatha* and *Haritaki Kwatha* with *Madhu*.
3. *Dashmoola Kwatha*, *Kulathi Yoosha*, *Kshudradi Kavala*, *Yavkshardi Vati*.
4. *Goumutrasidha Haritakiyadi Vati*.
5. *Katukadi Kwatha-Kutki*, *Ateesa*, *Devdaru*, *Paatha*, *Indrayava Kwatha* with Cow urine.
6. *Triphala kwatha* -*Triphala*, *Patha*, *Munaaka*, *Chameli Patra* (*Jasminum officinale*) *Kwatha* with *Madhu*.

Formulations

Peetaka churna, *Khasharadi gutika*, *Yavakhasharadi gutika*.

IX. Ras Rattana Samuchya^[15]

- *Tapyadi vati*
- *Paradadi prelepa*
- *Mandoora lepa*

X. Raskamdheni Urdvajatru Roga^[16]

- *Lepa*
- *Shastrakarma*

CORRELATION OF TUNDIKERI WITH TONSILLITIS**Causative factors responsible for *Tundikeri* disease**

As excessive consumption of meat (especially fish, pig, and buffalo), *Urad dal*, curd, milk, *Shukta*, *Ikshurasa*, and *Phanita*. Contributing lifestyle factors include sleeping in a prone position, poor oral hygiene, and inappropriate practices like *Dhoompana*, *Vamana*, and *Siravyadha*. These collectively lead to the manifestation of *Tundikeri*. There is no specific *Nidana* mentioned for the disease *Tundikeri* in either of the *Samhitas*. However, there are references to the factors responsible for the causation of disease in *Mukha* as a whole.

Modern medicine identifies causes of tonsillitis such as upper respiratory tract infections, sinusitis, low immunity, exposure to infections, poor oral hygiene, and environmental triggers like cold weather or foreign bodies in the throat. These etiologies align closely with those of *Tundikeri*.

Signs and Symptoms

According to *Acharya Sushruta*, symptoms like swelling (*Shopha*), pain (*Shula*), pricking sensation (*Toda*), burning (*Daha*), and suppuration (*Prapaka*) are seen in *Tundikeri*, which are similar to acute tonsillitis signs such as enlarged tonsils, pain, and pus formation. *Sushruta* also describes *Hanusandhi* as the anatomical location of the tonsils, and *Acharya Vagbhata* identifies it as *Hanusandhyasira*, suggesting there are two tonsils present.

Modern texts describe the palatine tonsils as paired lymphoid masses located on either side of the oropharynx. Ayurvedic references like *Karpasiphala* (tonsillar swelling), *Picchhil Srava* (discharge) from crypts, *Mandaruka* (sore throat), and *Kathinashopha* (hard swelling) parallel modern symptoms of tonsillitis.

Treatment: According to *Ayurveda*, *Tundikeri* cannot be completely managed with only *Shamana Chikitsa* (palliative therapy). *Acharya Sushruta* recommends *Shastra Chikitsa* (surgical approach) like *Galashundi* in *Tundikeri*.

Modern management advises tonsillectomy when medical treatment fails. Post-surgical complications of *Tundikeri* (like after tonsillectomy) may include bleeding or, in rare cases, death.

CONCLUSION

Tundikeri is a well-established disease entity in *Ayurveda* that closely corresponds to tonsillitis described in modern medicine. The Ayurvedic explanation of its *Kapha–Rakta*–dominant pathogenesis provides a rational foundation for its management. Whereas modern treatment mainly involves antibiotics and surgical removal of tonsils, *Ayurveda* offers a comprehensive therapeutic approach that includes *Shamana* therapy, para-surgical procedures such as *Ksharakarma*, and *Shodhana* therapies. This holistic management may prove effective in treating acute episodes of tonsillitis and, more importantly, in preventing recurrence, thereby potentially reducing the need for frequent tonsillectomies.

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