

Comparing contemporary understanding with Talu roga clinico-etio-pathological principles (diagnosis of palate diseases)

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ABSTRACT:

Aim of the study : The objective of this paper is to integrate the historical understanding of Talu roga with modern medical diagnostics, focussing on conditions such as Tundikeri, Adhrusa, Kacchapa (adenoma of the palate), Talu Arbuda (carcinoma of the palate/tumour of the palate), Mamsa Sanghata (fibroma of the palate/adenoma of the palate), Talupupputa (cystic swelling/Epulis/fibroma), Talushosa, and Talupaka. This integration aims to increase diagnostic precision and treatment choices for a wide range of palatal problems by merging traditional wisdom with cutting-edge medical discoveries.

Methodology: This comparative analysis examines Ayurvedic scriptures and contemporary medical literature to identify similarities and differences in the understanding and classification of palatal disorders. This involves reviewing descriptions of diseases such as Talu Arbuda, an Ayurvedic term for enormous, deep-rooted, and non-suppurative growths that are frequently likened to neoplastic conditions in modern medicine, such as benign and malignant tumours.

Results: The study demonstrates that ancient Ayurvedic descriptions, particularly of Talu Arbuda, are strikingly similar to modern understandings of palatal neoplasms such as carcinomas and adenomas. Furthermore, disorders such as Talupupputa (cystic swelling/epulis/fibroma) and Mamsa Sanghata (fibroma/adenoma of the palate) correspond to modern classifications of benign palatal masses, implying a profound understanding of tumour biology in ancient Ayurvedic literature. Similarly, the Ayurvedic notion of Talupaka, which refers to palatal ulcers and suppuration, corresponds with modern diagnoses of ulcerative stomatitis and abscess formation

Conclusion: This combination of approaches demonstrates the potential of establishing complete diagnostic and therapeutic regimens that draw on the capabilities of both traditional and modern medicine, thereby enhancing patient care for palatal pathology. This multidisciplinary method could help to establish integrative medicine platforms by allowing for a formalised communication between Ayurvedic practitioners and modern clinicians, resulting in better patient outcomes and informed cross-referrals. This integration is especially important considering the increasing prevalence of diseases like Arbuda (cancer) in the twenty first century, emphasising the necessity for comprehensive methods that combine traditional views with cutting-edge medical advances.

Keywords: Ayurveda, Talu Roga, Palatal Diseases, Oncology, and Integrative Medicine

1. Introduction:

The human palate, which plays a vital role in speaking, mastication, and deglutition, has long been viewed as essential to oral and systemic health in both traditional and modern medicine. Talu Roga refers to a group of palate illnesses that are thoroughly addressed in classical Ayurvedic literature such as Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and Madhava Nidana. These accounts address etiological causes (nidana), pathogenesis (samprapti), clinical manifestations (lakshana), and therapeutic procedures (chikitsa), emphasising the interdependence of doshas, dhatus, and srotas.

Modern medical research, on the other hand, emphasises on the morphological, microbiological, and pathological aspects of palate problems, particularly structural anomalies, infections, neoplasms, and neurological involvement.

Comparing these paradigms gives significant insights into the convergence of traditional diagnostic frameworks and modern clinical skills, which supports an integrative approach to orofacial pathology and patient-centered therapy.

2. Diseases of the palate

Kantha Shundi (Elongated uvula/ Uvulitis)

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□ The diffused and elongated swelling, caused by the vitiated *Rakta* and *Kapha*, which first occurs at the root of the palate and then extending till it looks like an inflated skin bladder is known as *Kantha Shundi* by physicians.

□ It is characterised by thirst, cough and dyspnoea¹. M N 56/33

Kantha Shundi Roga: A Modern Perspective.

Elongated uvula (Uvulitis) may indicate a medical concern.

Elongated Uvula/Extended uvula²:

An extended uvula is a rare hereditary condition in which the uvula is abnormally large, whereas uvulitis is inflammation and swelling of the uvula that is commonly caused by infection, allergies, or trauma. Symptoms of uvulitis, which is not a genetic elongation, include throat pain, difficulty swallowing, and a choking sensation, but a genetically extended uvula requires surgery to correct.

A congenital (genetic) disease in which the uvula is longer than normal.

Causes: It is a hereditary condition, not caused by inflammation.

Symptoms: Like uvulitis, an expanded uvula can cause discomfort, choking during swallowing, and sleep apnoea.

The only treatment option is surgical removal of the extended uvula.

Uvulitis:

- Swelling and inflammation of the uvula, a fleshy tissue protruding from the back of the throat.
- Viruses and bacteria can both cause infections, such as strep throat.
- Allergies are reactions to pollen, dust, or specific foods.

Injury: Physical damage to the back of the throat caused by an endoscopy or surgery.

Irritating behaviours include excessive smoking and inhaling or swallowing chemicals.

Acid reflux occurs when stomach acid flows back into the oesophagus.

- The symptoms include throat soreness and discomfort.
- Swallowing is difficult.
- A sensation of something being trapped in the throat.
- Gagging and suffocating sensations.
- A muted or nasal voice.

Treatment aims to address the underlying cause.

Infections: Antibiotics for bacterial infections, antiviral medicines for viral infections.

Allergies: Use antihistamines and avoid allergens.

Irritants include not smoking, drinking, or eating particular foods.

Gargling with warm salt water, drinking enough of fluids, and using a humidifier to relieve symptoms are all part of general therapy.

3. Tundikeri (Tonsilitis)

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□ A thick swelling resembling the fruit of the Tundikeri (Jujube seed) in shape and occurring at the root of the palate associated with a burning, pricking pain and suppuration is known as *Tundikeri* (tonsillitis)¹. M N 56/34

Tundikeri (Tonsilitis) Roga: A Contemporary Perspective.

Tonsilitis could suggest a medical problem.

Tonsillitis³:

Tonsillitis is an inflammation and swelling of the tonsils, two tissues in the back of the throat that are usually caused by viral or bacterial infections. Symptoms include a sore throat, fever, difficulty swallowing, and swollen neck lymph nodes. Antibiotics are used to treat bacterial tonsillitis, while viral infections, which are more common, are treated with supportive measures such as rest and fluids.

Causes

Tonsillitis is typically caused by viral infections, while *Streptococcus pyogenes* is the most common bacterial cause of strep throat.

Symptoms

Common signs of tonsillitis include:

- A severe soreness throat.
- Red and swollen tonsils
- Tonsil blotches can be white or yellow.
- Swollen and painful lymph nodes in the neck.
- Swallowing can be difficult or painful.
- Symptoms included fever and headache.

4. Adhrusa (Palatitits)

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A red and stiff swelling occurring at root of palate due to the vitiated *Rakta* and is associated with severe fever and pain is called as *Adhrusa*¹. M N 56/34

Adhrusa Roga: A Contemporary Perspective.

Palatitits could suggest a medical problem.

Palatitits⁴:

The palate is the anatomical structure that separates the roof of the mouth and the nasal cavity. Palatitits is a general medical term for inflammation of the palate or roof of the mouth. Symptoms may include pain, swelling, redness, and difficulty eating or swallowing. Infections, allergies, and trauma (such as burns from hot food) are also possible causes, as are dental issues, particularly in teething animals such as horses.

Causes:

Infections: Palatitis can be caused by bacterial or viral infections, such as the common cold or tonsillitis.

Tobacco, alcohol, and spicy foods can irritate the mouth.

Allergies: Both environmental and food allergens can induce inflammation.

Trauma can include injuries from direct blows, burns from hot foods, and other types of mouth trauma.

Autoimmune illnesses can also cause inflammation.

Dental problems: Palatitis in horses is frequently linked to the eruption of permanent incisors.

Symptoms:

A patient with palatitis might notice:

- Pain located on the roof of the oral cavity
- Swelling and redness.
- Sores or ulcers in the palate
- Trouble swallowing food or liquids.
- A scorching or itchy sensation.
- Poor breath (halitosis).

Diagnoses and Treatments:

- A visual examination by a doctor or dentist is usually enough to diagnose palatitis.
- If the symptoms persist, a doctor may obtain cell scrapings for a biopsy.
- The underlying reason will determine treatment, which may include antibiotics for bacterial infections or the removal of irritants.

5. Kacchapa (Adenoma of palate)

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- Pale colored, slightly painful swelling like the shell of tortoise occurring at the region of the soft palate is known as *kacchapa*.
- It grows slowly due to influence of *Kapha*¹ M N 56/35

Kacchapa Roga: A Contemporary Perspective.

Adenoma of palate could suggest a medical problem.

Palate adenoma⁵:

A palate adenoma is a benign (non-cancerous) tumour of the minor salivary glands, the most common of which is pleomorphic adenoma. It usually appears as a painless, slow-growing, smooth lump on the hard or soft palate. A biopsy and histological examination are used to make the diagnosis, and extensive surgical excision is used as treatment.

Salivary Gland Tumours: The palate has a number of small salivary glands that can develop into tumours.

Pleomorphic Adenoma is the most frequent kind of benign salivary gland tumour, containing both epithelial and mesenchymal elements.

Symptoms:

- **Painless mass:** The tumour develops slowly and is frequently identified by chance.
- **Smooth, Firm Mass:** A physical examination reveals a firm, well-defined, dome-shaped formation.
- **Functional Issues:** In rare cases, a large tumour can impede with breathing, swallowing, or speaking.
- **CT scans and MRIs can help assess** the exact size and extent of the tumour.
- **Biopsy:** A fine-needle aspiration (FNAC) or bigger tissue biopsy is necessary to provide a definitive diagnosis.

Treatment:

- **Surgical excision:** The primary treatment involves extensive surgical resection of the tumour and some surrounding tissue.
- **Early detection and treatment** are crucial for avoiding issues and future recurrences.

6. Talu Arbuda (Carcinoma of palate/tumour of the palate)

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- A swelling similar to the petal of the lotus lily and appearing in the region of the soft palate due to the aggravated condition of the *Rakta* is known as *Arbuda*.
- The clinical features are similar to the *Raktarbuda* described earlier¹. M N 56/35

Talu Arbuda Roga: A Contemporary Perspective.

Carcinoma of palate/tumour of the palate could suggest a medical problem.

Palate tumour/Palate carcinoma⁶:

A palate tumour, also known as a palate carcinoma, is a tumour on the roof of the mouth that typically begins as an unhealed ulcer or a white spot. Symptoms may include chronic pain, difficulty eating, speaking, or swallowing, bad breath, and loose teeth. Excessive tobacco and alcohol use are risk factors, and surgery is commonly used as a treatment, with radiation or chemotherapy utilised in more advanced cases.

Causes and Risk Factors:

- Squamous cell carcinoma is the most frequent kind, originating in flat cells that line the mouth.
- Tobacco and Alcohol: Heavy tobacco use and regular alcohol intake are major risk factors for oral malignancies, including palate cancer.
- Human papillomavirus (HPV): Certain HPV strains can cause mouth cancer.
- Radiation: Exposure to radiation can raise the likelihood of acquiring cancer.

- DNA mutations can lead to the development of some salivary gland tumours on the palate.

7. Mamsa Sanghata (Fibroma of palate/adenoma of palate) :

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A painless growth of abnormal flesh at the extremity of the soft palate due to the action of the aggravated *Kapha* is called *Mamsa Sanghata*¹. M N 56/36

Mamsa Sanghata Roga: A Contemporary Perspective.

Fibroma of palate/adenoma of palate could suggest a medical problem.

Fibroma of the palate⁷:

A fibroma of the palate is a benign, non-cancerous development of connective tissue that is commonly caused by repeated trauma, whereas an adenoma of the palate, such as a pleomorphic adenoma, is a benign tumour of the tiny salivary glands and the most common benign tumour of the palate. Both diagnoses are established on clinical examination, imaging, and histology, with surgical removal of a fibroma and extensive local excision of an adenoma ensuring complete elimination and prevention of recurrence.

Causes:

Fibroma of the Palate is a reactive lesion caused by prolonged irritation or trauma, such as ill-fitting dentures, calculus, or sharp tooth pieces.

Characteristics:

Small, innocuous, and either pedunculated (stalk-like) or sessile (flat-topped). Trauma to the hard palate is less common than in other oral regions, so it is considered a rare event.

Treatment:

To avoid recurrence, the lesion must be surgically excised, and the underlying cause removed or treated.

Outlook: Generally benign, with a low chance of recurrence if the irritant is identified and eliminated.

Palate adenomas (pleomorphic)⁷:

Palate adenomas (pleomorphic) can be caused by:

The exact cause is unknown; however it is a tumour that grows from the palate's numerous tiny salivary glands.

Characteristics: A benign tumour of the salivary glands and palate that grows slowly and painlessly.

Diagnosis:

Diagnosis needs a patient history, physical examination, FNAC, CT, or MRI to determine extent, and histology to confirm diagnosis.

Treatment:

Treatment involves a wide local excision with removal of any affected periosteum or bone, as simple removal may lead to high recurrence rates.

8. Talupupputa (Cystic swelling/ Epulis/fibroma)

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A painless swelling similar to the Kola (Jujuba) fruit caused by the vitiated *Meda* and *Kapha* at the soft palate region is called *Talupupputa*¹. M N 56/36

Talupupputa Roga: A Contemporary Perspective.

Cystic swelling/ Epulis/fibroma could suggest a medical problem.

Cystic swellings, epulis, and fibromas⁸:

Cystic swellings, epulis, and fibromas may appear to be same, yet they are all distinct types of oral masses with different compositions, locations, and causes. A biopsy and histological investigation are necessary to provide a definitive diagnosis.

Cystic swellings:

A cystic swelling is a fluid-filled sac that commonly resembles a blister and can form in the mouth or jawbone. Cysts are closed cavities with a lining that store fluid, pus, or other substances. Oral cysts may develop in the gums, jawbone (odontogenic cysts), or mouth floor (ranulas).

Appearance:

The swelling might be firm or mushy, and is usually painless until infected. It may grow gradually over time.

Causes:

Oral cysts can be caused by clogged salivary gland ducts or developmental problems.

Epulis:

The term "epulis" refers to any lump on the gumline, rather than a specific diagnosis. It is a reactive growth, which means it is not a tumour but rather an enlargement of tissue induced by repeated stimulation.

Composition:

Epulides are fibrous connective tissue growths that are typically ulcerated and can contain a wide range of cell types depending on their subtype.

Location:

An epulis can only grow on the gingiva (gums) or alveolar mucosa (the tissue that protects the jawbone).

Appearance:

It appears as a nodular, hard, or rubbery mass that varies in colour from pale pink (fibrous) to deep red or purple-blue (vascular forms).

Causes:

Epulis can be caused by local irritants such as tooth plaque, tartar, ill-fitting dentures, or hormonal changes, particularly during pregnancy.

Subtypes:

Subtypes of epulis include fibrous epulis (also called irritant fibroma), pyogenic granuloma (a vascular form), and peripheral giant cell granuloma.

Fibroma

A fibroma is a benign, non-cancerous tumour of fibrous or connective tissue. Oral fibroma is a type of fibroma that appears in the mouth, typically as a result of local trauma.

Composition:

A fibroma is a dense mass of fibrous connective tissue that can be thick or loose.

Location:

Oral fibromas can appear on the inner cheek, "bite line," tongue, lips, or gums.

Appearance:

The lump is smooth, spherical, dome-shaped, firm to touch, and matches the colour of the surrounding oral mucosa.

Causes: Oral fibromas are sometimes known as "irritation fibromas" because they develop in response to repeated local trauma or irritation, such as accidentally biting the inside of your cheek.

Distinguishing between fibroma and epulis: While both can be caused by irritation and are firm, "fibroma" refers to the tissue composition, and "epulis" relates to the gum location. A biopsy is often required to differentiate between fibrous epulis and simple irritating fibroma.

Summary of the Differences

Feature	Cystic Swelling	Epulis	Fibroma (Oral)
Composition	Fluid-filled sac with a lining	Exuberant overgrowth of soft tissue	Solid mass of fibrous connective tissue
Location	Gums, jawbone, or salivary glands	Exclusively on the gingiva (gums)	Any soft tissue in the mouth, like cheeks or tongue
Texture	May be firm or soft	Firm to rubbery	Firm to hard
Causes	Blocked ducts, developmental issues	Chronic irritation, hormonal changes	Local trauma or chronic irritation

9. Talushosa (Atrophy of palate)

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- The disease in which the patient feels dryness of palate with dyspnoea and a severe piercing pain in the affected part is called *Talushosa*.
- It manifest due to aggravation & vitiation of Vayu & Pitta¹

M N 56/37

Talushosa Roga: A Contemporary Perspective.

Atrophy of palate could suggest a medical problem.

Palate atrophy⁹:

Palate atrophy is the wasting or shrinking of soft or hard palate tissue caused by muscle degeneration from neuromuscular disorders, nutritional deficiencies (such as iron or vitamin B12), chronic infections such as oral candidiasis (especially in denture wearers), or other less common causes such as trauma. This syndrome can cause issues with speech, swallowing, and the velopharyngeal valve.

Causes

Neuromuscular Disorders: Progressive spinal cord degenerative diseases, such as some kinds of amyotrophic lateral sclerosis (ALS), can cause soft palate muscle atrophy.

Nutritional Deficiencies:

Nutritional deficiencies in iron, vitamin B12, riboflavin, niacin, and zinc can lead to palatal atrophy.

Infections:

Candida infections, particularly in denture users, can cause chronic atrophic candidiasis.

Cleft Palate:

Individuals with cleft palate may have severely atrophied soft palate muscles due to decreased function.

Trauma:

Direct trauma from an accident might result in tissue damage and atrophy.

Symptoms:

Difficulty with Speech: Symptoms of soft palate atrophy include speaking difficulties and velopharyngeal dysfunction (VPD). VPD occurs when the palate fails to close properly, leading to hypernasal speech (excessive nasal resonance).

Dysphagia (Swallowing Issues): Inadequate soft palate function can result in swallowing problems, such as food and liquids refluxing into the nasal cavity.

Smooth Appearance: In some cases, particularly with chronic atrophic candidiasis, the affected palate might appear smooth, red, and atrophied.

Treatment

The best treatment for palate atrophy depends on the underlying cause.

Treating the Cause: Antifungal medications can be used to treat both nutrient deficiencies and chronic fungal infections.

Supportive equipment: When neuromuscular problems cause considerable soft palate weakness, devices such as palatal lift prosthesis can help shut the velopharyngeal valve, improving speech and swallowing skills.

10. Talupaka (Palatal ulcers /suppuration of palate)

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The disease in which the aggravated *Pitta* causes very severe suppuration in the soft palate is called *Talupaka*.¹

M N 56/37

Talupaka Roga: A Contemporary Perspective.

Palatal ulcers /suppuration of palate could suggest a medical problem.

Palatal ulcers /suppuration of palate¹⁰:

Palatal ulcers can be caused by trauma, infections (viral, fungal, or bacterial), inflammation, autoimmune disorders, or developmental difficulties. Diagnosis is the process of determining the underlying cause, which can range from minor irritations like ill-fitting dentures or burns to more serious disorders like fungal infections or Lupus. Treatment is tailored to the particular cause and may involve topical therapies, antibiotics, antifungal medications, or lifestyle modifications. However, persistent or severe cases require a professional evaluation, which may include a biopsy.

Trauma:

Trauma is a common cause of palatal ulceration and suppuration. Accidental burns from hot foods or drinks, injuries from sharp objects or hard foods, and ill-fitting dentures can all cause isolated, self-healing ulcers.

Infections:

Candidiasis (oral thrush) and other fungal illnesses like histoplasmosis can result in ulcers.

Ulcers can be caused by some types of bacteria infections.

Varicella-zoster virus (shingles) causes tiny, quickly rupturing vesicles on the palate.

Inflammatory Conditions:

Recurrent Aphthous Stomatitis (RAS): Common, recurring, benign ulcers with no known cause, most likely linked to stress or genetics.

Lupus: Lupus erythematosus is an autoimmune disease that can develop palatal ulcers.

Systemic Diseases:

Systemic diseases may cause persistent mouth ulcers.

Chemical/thermal burns: Hot substances can cause injury and ulceration of the palatal tissue.

Developmental causes: A cleft palate is a palate-related developmental defect.

Corrosion: Lesions can be caused by allergic responses or toxic compounds in dental alloys used in removable prostheses.

11. CONCLUSION

A comparison of Talu Roga concepts to current medical knowledge demonstrates an analogous goal: accurate detection and treatment of palate disorders. While modern medicine focusses on structural, microbiological, and physiological pathology, Ayurveda offers a more comprehensive explanation based on dosha-dushya imbalance and prakriti vulnerability. These viewpoints, which combine old etiopathological concepts with evidence-based diagnostic processes, can help improve clinical

reasoning. This multidisciplinary knowledge not only enhances academic discourse, but it also opens up new possibilities for the comprehensive diagnosis, prevention, and treatment of palate-related disorders.

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