



Literature review of concept of *Kanthashaluka* w. s. r. Adenoid.

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Abstract

The hyperplasia of pharyngeal tonsils is considered pathological when it leads to nasopharyngeal symptoms indicative of mechanical obstruction or ongoing inflammation. Chronic eustachian tube dysfunction can result in various middle ear issues, such as conductive hearing loss and recurrent episodes of acute otitis media. Signs like adenoid facies, characterized by a long face and an open mouth revealing the tongue, necessitate a comprehensive assessment. In cases of severe symptoms or ineffectiveness of conservative treatments, adenoidectomy is frequently performed as an outpatient procedure, with standard curettage. Prior to surgery, evaluations, including an assessment of bleeding risk, are crucial due to the possibility of haemorrhage. Following the operation, an evaluation by an otorhinolaryngologist is

required to check for any secondary bleeding. Adenoid hypertrophy, often causing obstructive problems and prevalent in children, frequently leads to sleep issues, nasal congestion, and complications related to the auditory system. While it usually resolves on its own, surgical intervention may be necessary. Alternative non-surgical approaches, such as ayurvedic treatments, have shown effectiveness in managing this condition. The accurate diagnosis of adenoid hypertrophy mainly relies on clinical evaluations, although these can vary in consistency for young children. Several diagnostic techniques are available; however, there is no agreement on the most effective method. Consequently, a study is in progress to develop a clinical grading system that could aid in diagnosis and identify candidates for adenoidectomy,

linking it with endoscopic and x-ray findings

Keywords: Adenoid, Nasa roga, Ayurveda, Nasya, lymphoid tissue, *Kanthashaluka*

Introduction

Chronic nasal obstruction is the most prevalent of the respiratory conditions that account for the majority of paediatric medical visits.¹ The most frequent cause of this is adenoid hypertrophy, which results in changes to the auditory and orthognathic apparatus as well as sleep disorders such as obstructive apnoea and snoring²⁻⁵ among others, which lead to social and educational issues. The passageway that joins the nasal cavity to the throat is home to the adenoid, a solitary lump of tissue in the back of the nose.

Among children, adenoid hypertrophy is the most prevalent health issue. Antigens come into contact with immune-active cells and inhaled microorganisms at the adenoid, which is situated at the intersection of the nasopharynx's roof and posterior wall.^{6,7} Compared to the bony nasopharynx, adenoid tissue grows more quickly in youngsters, causing obstructive symptoms.⁸ The nasopharyngeal tonsils become apparent between six months and one year of age, exhibit physiological enlargement until the age of six to eight years, and then typically fade throughout puberty. Due to their small nasopharynx and higher risk of upper respiratory tract infections, young children are more likely to experience the symptoms of adenoid hypertrophy.⁹

Aim and objectives:

- 1) To study the concept of *Kanthashaluka* w. s. r. Adenoid.

- 2) To study management of *Kanthashaluka* w. s. r. Adenoid as modern and Ayurvedic

Material and methods:

- 1) For this study we referred various Samhita's for various references of *Kanthashaluka* w. s. r. Adenoid.
- 2) Related modern text books also referred for modern references

Literature Search

Anatomy¹⁰

Adenoids are a single pyramid-shaped structure in the nasal cavity's upper back. There are wrinkles on their surface but no true crypts. Blood supply to the ascending palatine branch of the facial artery, the ascending pharyngeal artery (external carotid), and the pharyngeal branch of the maxillary artery are the sources of adenoids. The pharyngeal plexus of veins, which communicates with the pterygoid plexus and eventually empties into the facial veins and internal jugular veins, is where the venous drainage of the adenoids occurs. The lymphatic outflow into the upper deep cervical and retropharyngeal lymph nodes. The glossopharyngeal and vagus nerves innervate the adenoids

Disease Review

Aetiology.¹¹

During childhood, adenoids may expand physiologically. Some kids tend to make generalizations. Adenoids participate in lymphoid hyperplasia. Chronic tonsillitis, sinusitis, or recurrent episodes of rhinitis can result in hyperplasia and persistent adenoid infection. Adenoid enlargement may also be a result of upper respiratory tract allergies.

Clinical Features:

Symptoms:

- Recurrent upper airway infections,
- Snoring,
- Hearing loss,
- Otolgia
- Sometimes dental malposition.
- Increased susceptibility to infection

Sign¹²:

1. Nasal Sign's

• Nasal Obstruction

Enlarged adenoids obstruct the posterior nasal airway causing persistent nasal blockage. It leads to mouth breathing, especially during sleep.

• Nasal Discharge

Chronic infection of adenoids results in persistent mucopurulent nasal discharge. Post-nasal drip is common and may cause throat irritation.

• Sinusitis

Adenoid hypertrophy blocks sinus drainage pathways leading to recurrent sinus infections. Patients present with facial pain, headache, and nasal congestion.

• Epistaxis

Inflammation and infection of the nasopharynx can cause fragile mucosa. This results in recurrent, usually mild, nosebleeds.

• Hoarseness of voice

Obstruction of the nasopharynx produces a characteristic hyponasal voice. Speech sounds muffled due to reduced nasal resonance.

2. Aural Sign's

• Tubal Obstruction

Enlarged adenoids block the Eustachian tube opening. This leads to impaired middle ear ventilation and negative pressure.

• Recurrent Attacks of Acute Otitis Media

Eustachian tube dysfunction predisposes to repeated middle ear infections. Children experience recurrent ear pain and fever.

• Chronic Suppurative Otitis Media

Persistent tubal obstruction and infection may lead to chronic ear discharge. Hearing impairment is a common associated feature.

• Otitis Media with Effusion

Impaired aeration causes accumulation of sterile fluid in the middle ear. It commonly results in conductive hearing loss in children.

3. General Sign's

• Adenoid Facies

Chronic mouth breathing causes long face, open mouth, and narrow upper jaw. It is commonly associated with dental malocclusion.

• Pulmonary Hypertension

Long-standing upper airway obstruction may cause chronic hypoxia. This can lead to pulmonary hypertension and cor-pulmonale in severe cases.

• Aprosexia

Chronic hypoxia and sleep disturbance result in poor concentration. Children show decreased attention span and poor scholastic performance.

Evaluation:

For diagnostic evaluation of adenoid done by following investigation

- **X-ray lateral Skull**

It shows the size of adenoids and degree of nasopharyngeal airway obstruction.

Enlargement is assessed by reduced nasopharyngeal air column

- **Diagnostic nasal endoscopy**

It provides direct visualization of adenoid tissue and its extent. This is the most accurate method for assessing size, infection, and tubal involvement.

Gradation of adenoid¹³

Based on Anatomical Landmarks (Parikh System)

- **Grade I:** Adenoid tissue not touching surrounding structures.
- **Grade II:** Adenoid touches the torus tubaris (around the Eustachian tube opening).
- **Grade III:** Adenoid touches the vomer (septum dividing nasal passages).
- **Grade IV:** Adenoid touches the soft palate

Differential diagnosis of adenoid:¹⁴

- Palatine tonsil hyperplasia
- Incomplete choanal atresia
- Endonasal foreign bodies,
- Nasal concha hyperplasia
- Infectious or allergic rhinitis.
- Benign and especially malignant neoplasms

- Nasopharyngeal angiofibroma
- Thornwaldt cyst

Treatment:¹⁵

- Breathing exercises, decongestant nasal sprays, and antihistaminic for any co-existing nasal allergies can treat the illness without causing symptoms turn to surgery.
- Adenoidectomy is performed when symptoms become noticeable. The section on operational surgery discusses the procedure's indications and specifics.

Ayurvedic aspect

Kanthashaluka

Kanthashaluka is a disease of the throat, caused due to vitiated *Kapha vata* in association with *Rakta* producing nodular swelling. Associated with dryness, inflammation, infection, excessive speaking, intake of hot-spicy food, and improper dietary habits. Clinically, it can be correlated with Adenoid in modern medicine.

Classical literature:

1. As per *Acharya Sushruta*, vitiated *Kapha dosha* generate *Sthira* (immobile) and *Khara* (rough) *Granthi* (hard cyst) resembling the seed of *Kola* or *Badara phala* (plum or jujube fruit) in the throat.¹⁶.
2. As per *Acharya Vaghbata*, *Kapha pradhana tridosha dushti* produces *Grathita unnata shotha* (elevated knotty swelling) like a seed of *Kola* in throat region. It induces irritation similar to that caused by *Shukakanthaka* (thorny spikes) and

produces *Margavarodha* (obstruction) in the throat¹⁷.

Treatment :

- *Acharya Sushruta* – as per Galashundika for *Kanthashaluka*.
Rakta visravana i.e., *Jaloukavacharana*
- As per *Acharya Dalhana* -Total excision without leaving any residue¹⁸

Discussion

When pharyngeal tonsil hyperplasia results in nasopharyngeal symptoms, such as irritation or mechanical blockage, it is considered pathological. Recurrent acute otitis media and conductive hearing loss are two middle ear problems that can result from chronic eustachian tube dysfunction. Signs like adenoid facies necessitate careful study; in severe cases or when conservative treatments are futile, adenoidectomy is frequently carried out, including pre-operative assessments to determine bleeding risk. Common in youngsters, adenoid hypertrophy can lead to obstructive sleep, nasal congestion, and auditory problems; it normally goes away on its own but may require surgery. Ayurvedic therapies and other non-surgical techniques have proven successful.

Conclusion

Adenoid hypertrophy is the primary cause of chronic nasal blockage, one of the most common respiratory conditions in paediatric medical visits. This illness may cause auditory abnormalities, sleep disturbances such as snoring and obstructive apnoea, and ensuing social and academic difficulties. Between six months and a year of age, the nasopharyngeal

tonsils emerge, expand until the age of six or eight, and then shrink during puberty. Due to their smaller nasopharynx and increased vulnerability to upper respiratory infections, young children are most impacted. There are very scope for research in adenoid in point of view of Ayurveda.

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