

Adenoids – a review of *kantha shalook*

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Abstract:

Nasal obstruction & mouth breathing frequently caused by multiple factors, one of them being hypertrophied adenoid and tonsils. It is perhaps one of the usually discussed reasons for partial airway obstruction & related respiratory abnormalities.

The aim of this article is to provide a lucid illustration of issues pertaining to obstructive breathing and its implication on craniofacial growth.

Inefficient medical management and reluctance to surgery necessitates an alternative and novel non-surgical approach to deal this condition. With the very aim of fulfilling the same this case study was taken which involved intake of *Ayurvedic* medicines and an adoption of *Ayurvedic* procedure.

INTRODUCTION:



Adenoid Mass after Removal with curette. Note ridges of Lymphoid tissue separated by deep cells.

(Image Courtesy: - Diseases of Ear, Nose and Throat & Head and Neck Surgery, 7th Ed., P. Dhingra, Shruti Dhingra, Assisted by Deeksha Dhingra.)

While habit formation is one of the causes of mouth breathing in young children, bone anatomy of nasal track and obstructive growth like enlarged tonsils & adenoid can also play a major role in the development of mouth breathing and its subsequent effects. Mouth breathing is one of the many factors which have a significant impact on the overall dentofacial development.^{4,5}

शलूक मुत्पलकन्दः ॥ न्या. च. / डल्हण

According to *Sushrutacharya*, due to the vitiation of *Kapha dosha* and according to *Vagbhatacharya* due to dushti of *Kapha-pradhan Tridosha*, the naso-pharynx develops a seed-like structure projecting from the surface, usually at the junction of roof and posterior wall of nasopharynx.^{6,7}

कोलास्थिमात्रः कफसंभावो यो ग्रन्थिर्गले कण्ठकशूकभूतः ।

खरः स्थिरः शस्त्रनिपातसाध्यस्तं कंठशलूकमिति ब्रुवन्ति ॥ सु. नि. १६-५१

It is usually shape of the lotus's stem, mostly showing gradual growth thus obstructing the path. The adenoid is a single mass of tissue located way in the back of the nose in the passage that connects the nasal cavity to the throat. This tissue like the tonsils in the throat helps filter out.

Tomes coined this term based on his belief that enlarged adenoids were the principle cause of airway obstruction and resulted in noticeable dentofacial changes. Tomes reported that children, with mouth breathing, often exhibited narrow V-shaped maxillary arches. This narrow jaw is a result of mouth breathers keeping their lips apart and their tongue position low.

Aetiology⁷

Adenoids are a subject to physiological enlargement in childhood. Certain population of childhood have a tendency to generalized lymphoid hyperplasia in which adenoids also take part. Recurrent attacks of rhinitis, sinusitis or chronic tonsillitis may cause chronic adenoid infection and hyperplasia. Allergy of the upper respiratory tract may use also contribute to the enlargement of Adenoids

The tongue displaced downward can lead to a retrognathic mandible and an interposed tongue can lead to anterior occlusal anomalies. Additionally, there is often presence of a narrow and retrusive maxilla concomitant with palatal inclination in relation to cranial base and an increase in lower anterior facial height.

Further occlusal changes like crossbite (posterior &/or anterior), open bite, increased over jet and retro-clination of maxillary and mandibular incisors may ensue.

Clinical features⁷

Enlarged and infected adenoids may cause nasal, aural or general symptoms.

1. Nasal symptoms
 - a. Nasal obstruction
 - b. Nasal discharge
 - c. Sinusitis
 - d. Epistaxis
 - e. Voice change
2. Aural symptoms
 - a. Tubal obstruction
 - b. Recurrent attacks of acute otitis media
 - c. Chronic suppurative otitis media
 - d. Otitis media with effusion
3. General symptoms
 - a. Adenoid facies
 - b. Pulmonary hypertension
 - c. *Aprosexia*

It also reviews the skills and tools that assist in identifying upper airway obstruction and improves the diagnosis of adenoid hypertrophy with the treatment of associated malocclusion.

The tonsils (palatine or faucial tonsils) and the adenoids (pharyngeal tonsils) are part of *Waldeyer's tonsillar ring* (or nasal-associated lymphoid tissue (NALT), named after a nineteenth century German anatomist Heinrich Wilhelm Gottfried Waldeyer.(Image 1)

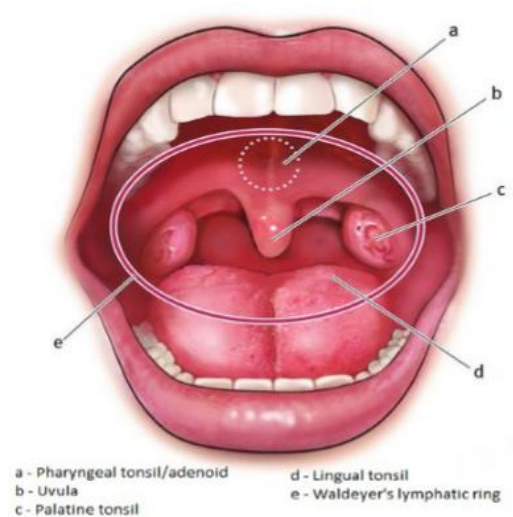


Image 1 Courtesy: Hellings P, Jorissen M, Ceuppens JL. The Waldeyer's ring. *Acta Otorhinolaryngol Belg.*, 237-41.

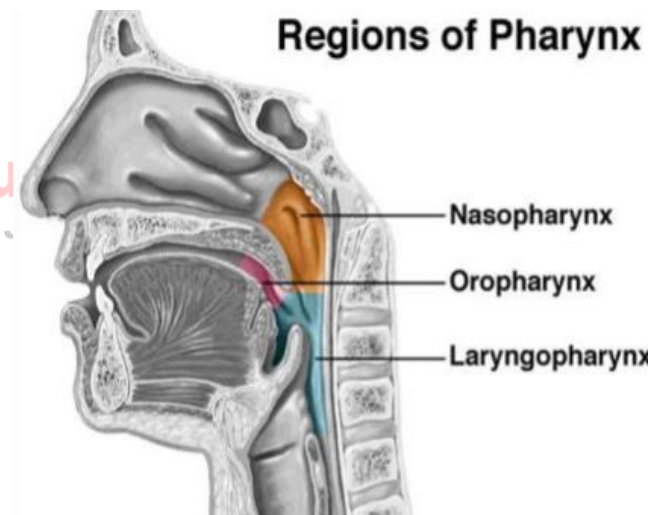


Image 2 Courtesy: Diamond O. Tonsils and adenoids: why the dilemma? *Am J Orthod.* 1980 Nov; 78 (5):495-503.

The ring also includes the tubal tonsil, where the Eustachian tube opens in the nasopharynx and the lingual tonsils. As the tonsils and adenoids are located at the gate of the upper respiratory and alimentary tracts, where they are constantly exposed to antigens, they are mostly composed of immunologically reactive lymphoid tissue containing antibody-producing lymphocytes.

Enlargement of the adenoid, usually in children, causes atypical appearance of the face, often referring to adenoid faces. Mouth breathing, an elongated face, prominent incisors, hypoplastic maxilla, short upper lip, elevated nostrils, and a high arched palate are included in features of Adenoids.

George Catlin, in his humorous and instructive book *Breath of Life*, published in 1861, illustrates adenoid faces in many engravings and advocates nose-breathing. Infections of the adenoids can cause a variety of complications including middle ear infections, glue ear, sinusitis, chest infections etc.¹³

Management of Adenoids (*Kantha Shalook*)

In Ayurveda, adenoid enlargement can be well correlated with *Kantha Shalook* owing to the marked similarities of the clinical presentations of these two disease entities. *Kantha Shalook* is actually one of the 17 *Kantha Roga* affecting the quality of life of the population.

Sushrutacharya described *Kantha Shalook* as surgically operate-able disease. Surgical removal of the adenoid is a procedure called adenoidectomy. Adenoid infection may cause symptoms such as excessive mucus production, which can be treated by its removal. Studies have shown that adenoid regrowth occurs in as many as 20% of the cases after removal. Carried out through the mouth under a general anaesthetic (or less commonly a topical), adenoidectomy involves the adenoid being curetted, cauterized, lasered, or otherwise ablated. Post-operative complications may include

vomiting, difficulties with swallowing, pain and bleeding.

CONCLUSION:

Adenoid hypertrophy is one of the commonest cause for nasal obstruction, which causes alterations to the orthognathic and auditory apparatus, and sleep disorders such as snoring and obstructive apnoea resulting in educational and social problems. It is adenoid hypertrophy that is the most common cause of this, causing alterations to the auditory and orthognathic apparatus, and sleep disorders such as snoring and obstructive apnoea.

Ayurvedic medicines have great potential to overcome Adenoid enlargement without any surgical intervention. If such a patient of Adenoid enlargement go for Ayurvedic treatment in the initial stage of the problem, better results in short duration are anticipated.

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