



ETIOPATHGENSIS, MANIFESTATIONS AND MANAGEMENT OF APEENASA/PEENASA W.S.R. TO PARANASAL SINUSES

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Abstract

Paranasal sinus is also described as sinusitis which is the inflammation of the mucosa in paranasal sinuses. It comprises maxillary, ethmoid, frontal and sphenoid sinuses. In Ayurveda these pathological conditions correspond to *Apeenasa* and *Peenasa*. *Apeenasa* and *Peenasa* are terms used interchangeably for paranasal sinusitis and allergic responses play vital role towards the pathogenesis of this condition. Nasal obstructions, loss of smell and taste sensation, noisy breathing, nasal discharge and congestion, etc. are major symptoms associated with disease. *Vamana*, *Virechana*, *Deepana-Pachana*, *Dhumapana Karma*, *Shirovirechana* and *Nasya*, etc. are major therapeutic approaches can be suggested for the management of paranasal sinuses. This article highlighted etiopathgensis, manifestations and management of *Apeenasa/Peenasa* W.S.R. to paranasal sinuses.

Key-Words: *Ayurveda, Paranasal Sinus, Apeenasa, Peenasa, Allergy, Nasal*

Introduction

Apeenasa is a condition characterized by nasal crusting, obstruction, diminished sense of smell and headache, etc. This pathological condition significantly affects quality of life and current situation of diversified environment also put burden of such types of diseases. Imbalances of *Vata* and *Kapha Dosha* contribute remarkably in the pathogenesis of these diseases. Nasal obstruction, intermittently wet nose, noisy breathing and nasal discharge, etc. are common manifestations of disease [1-4].

Apeenasa falls under the category of *Nasagata Roga* and *Urdhvajatrugata Vyadhis*. *Deepana Pachana*, *Swedana*, *Snehana*, *Virechana*, *Vamana*, *Nasya* and *Dhoomapana*, etc. are therapeutic approaches for *Apeenasa* amongst the other *Nasagata Rogas*. Ayurvedic practices offer localized therapy for managing *Nasagata Rogas*. The therapy which affect clavicle, nasal and respiratory tract can be used here, similarly drugs affecting functioning of endocrine glands and the nervous system can also be recommended for managing such types of conditions [3-5].

There are different types of paranasal sinus (sinusitis) as depicted in **Figure 1**, according to the modern science. Acute sinusitis is a short-term inflammation of the sinus lining often caused by a viral infection, such as the common cold. It can also be triggered by bacterial infections. The symptoms include a sudden onset of cold-like symptoms, such as a runny or stuffy nose, facial pain or pressure, and a decrease in the sense of smell. These symptoms typically persist for 10 to 14 days, but the condition itself lasts for about 4 weeks or less.

Chronic condition is characterized by persistent inflammation of the sinuses, lasting for 8 weeks or longer. The symptoms are similar to those of acute sinusitis but are generally less severe. Common symptoms include nasal congestion, discolored nasal discharge and feeling of fullness in the ears. Chronic sinusitis can be caused by various factors, including infections, nasal polyps, or deviated nasal septum.

Recurrent sinusitis is a condition where an individual experiences several episodes of acute sinusitis within a year. Each episode may follow a pattern of symptoms similar to acute sinusitis, including nasal congestion and discolored nasal discharge. Recurrent

sinusitis can be associated with underlying conditions or factors such as allergies, anatomical abnormalities in the sinuses, or a weakened immune response, etc [4-7].

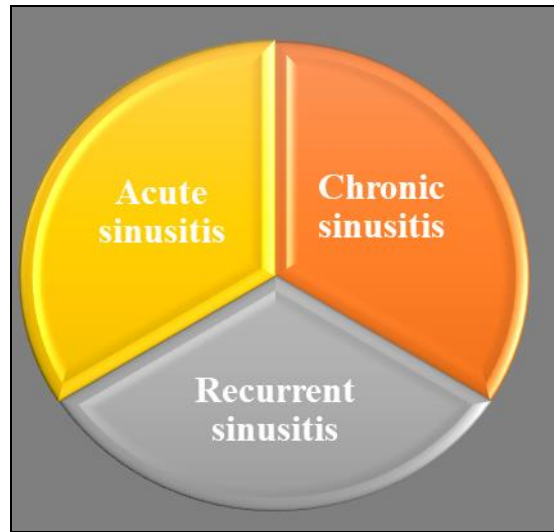


Figure 1: Types of paranasal sinus (sinusitis) as per modern science

Causes:

- ✚ Deviated nasal septum, wall of nostrils displaces unevenly
- ✚ Nasal bone spur, nasal polyps and growths in the nose
- ✚ Hereditary factors, genetic predisposition
- ✚ Tobacco smoking, occupational hazards, exposure to smoky conditions
- ✚ Respiratory infection and allergens responses
- ✚ Cystic fibrosis and dental infection

Symptoms:

Headache characterized by pressure in the sinuses, tenderness of the face upon touching, fever resulting from inflammation and sinus infection, presence of cloudy nasal drainage, congestion, nasal stuffiness, postnasal drip, irritation, sore throat, tooth pain, ear pain, itching/sneezing, itching eyes and sneezing, etc. In *Siddha* concept, sinusitis is categorized under *Mookadaipu* which includes different types such as; *Azhal*, *Vazhi*, *Iyam*, *Kuruthi*, *Seel*, *Neer*, *Sirai* and *Kazhuthu mookadaipu*. *Vazhi mookadaipu* exhibits symptoms such as irritation, sneezing, itching, dryness and runny nose, etc. *Azhal mookadaipu* includes symptoms of thirst, nasal block, fever and irritation. *Iyam mookadaipu* is characterized by symptoms like irritating pain, headache, tears and nasal drainage, etc. Other types like *Kuruthi*, *Neer*, *Seel*, *Moolai*, *Kazhuthu* and *Sirai*

Mookadaipu have distinct symptoms associated with watery discharge, laziness, redness in the nose, discharge of mucus, loss of appetite, sore throat, sneezing and mucus drainage, etc [5-7].

Pathogenesis:

Vata predominance in nasal or sinus infection leads to thin discharge, nose stuffiness, hoarseness of voice and dryness in the mouth. *Kapha* vitiation results thick, whitish discharge itching. When *Pitta* gets vitiated along with *Kapha* then symptoms of burning sensation and itching arises sometimes.

The pathogenesis of nasal blockage or sinusitis is triggered by factors such as exposure to cold weather, intake of cold items, climatic changes, inhalation of smoke and gases, lack of seasonal consideration, exposure to dust, pollutants and suppression of natural urges, etc. These *Kapha Vata Prakopak Ahara Vihara* leads to the *Dushya* in *Rasa* and *Rakta*, affecting *Pranavaha* and *Rasavaha Srotas* along with *Kapha Vata* vitiation. These all events together exposed as symptoms of sinusitis.

According to modern science chronic inflammation of the nasal cavity leads to the loss of cilia, causing the ciliated columnar epithelium to transform into stratified squamous cells. This alteration results in the stagnation of mucus discharge. Alteration in turbinates causes a roomy nose, when seromucinous glands get affected then this reduces secretion, causing dryness and crusting in the nasal cavity. Venous blood sinusoids lead impaired blood drainage; atrophy of nerve elements causes a loss of smell sensation, atrophy of arteries in the mucosa and periosteum leads to reduced blood supply and enhances susceptibility for secondary infections [2-5].

Treatment

The treatment for these conditions includes *Swedana*, *Snehana*, *Virechana*, *Vamana*, *Dhoomapana* and *Nasya*, etc. The *Deepana-Pachana* aims transition the *Sama Dosha* to *Nirama* state. Therefore, *Deepana-Pachana* should be administered at the onset of *Snehana* therapy to enhance *Agni* and facilitate the digestion of *Ama* (toxin). Thereafter this *Ama* get eliminated from the body and further detoxification process executed.

Snehana/Mukhabhyanga induces softening of *Doshas* for their easy elimination and this therapy also increases blood circulation in the affected area. Similarly, *Swedana* induces *Vilayana* of accumulated *Doshas*, particularly mucous so it gets eliminated easily.

Vamana Karma helps to expel out morbid *Doshas* through the upper channels, *Vamana* forcibly eliminates *Apakva Pitta* and *Kapha* through upper channels. Thus, alleviates symptoms of congestion. Similarly, *Virechana Karma* expelled out toxins through the anal route and increases mucous membrane secretion, preventing nutrient absorption and enhancing gastrointestinal motility to eliminate *Ama* from the anal evacuation.

Dhumapana Karma employed for managing diseases of head, nose and respiratory tract. *Dhumapana Karma* affect *Vata* and *Kapha Dosha*, since drugs used for *Dhumapana* penetrates into the smallest channels relieves symptoms of vitiated *Vata* and *Kapha Dosha*. The *Ushna* and *Tikshna* qualities of drugs liquefy and expel *Doshas* from the affected region. The gaseous form of medicine absorbed quickly due to the high bioavailability and imparts quick therapeutic responses.

Nasya Karma is one of the common approaches for managing sinusitis and other diseases of nose and respiratory tract, etc. The *Taila* instilled in the nasal cavity travels to the olfactory epithelium and medial or lateral areas of the cerebral cortex. The chemical impulse generated by *Nasya* transforms into a neuronal impulse, producing a stimulatory effect that result in the evacuation of morbid *Doshas* and rejuvenates the olfactory nerve [6-10].

Conclusion:

Paranasal sinus stands out as a prevalent condition among *Nasagata Rogas* and its incidence rises due to climatic variations exacerbated by pollution. This condition referred to as *Apeenasa/Peenasa* in Ayurveda science. Deviated nasal septum, nasal bone spur, nasal polyps, hereditary factors, tobacco smoking, occupational hazards, respiratory infection and allergens, etc. are major causative factors of disease. Nasal blockages, diminished sense of smell and taste, audible breathing, nasal discharge and congestion are prominent symptoms linked to this illness. *Vamana*, *Virechana*, *Deepana*-

Pachana, Dhumapana Karma, Shirovirechana and Nasya, etc. are major therapeutic approaches suggested for paranasal sinuses. Medical science also advises some preventive measures which includes maintenance of nasal hygiene, nasal irrigation with alkaline saline, avoidance of exposure to extreme cold conditions, smoking, avoidance of intake of cold stuff over hot items and *vice-versa*, oily and heavy foods are prohibited and avoidance of contact with specific allergens, etc.

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