

## A COMPREHENSIVE AYURVEDIC TREATMENT FOR CHRONIC SINUSITIS: CASE STUDY ON THE EFFICACY OF APEENASA THERAPIES

<sup>\*1</sup>Dr. Saurabh S. Gobade, <sup>2</sup>Dr. Vinod M. Jadhav and <sup>3</sup>Dr. Santosh Pujari

<sup>\*1</sup>PG Scholar Department of PG Studies In Shalaky Tantra S.V.M. Ayurvedic Medical College, Ilkal, District-Bagalkot-587125, Karnataka.

<sup>2</sup>Professor & HOD Department of PG Studies In Shalaky Tantra S.V.M. Ayurvedic Medical College, Ilkal, District-Bagalkot-587125, Karnataka.

<sup>3</sup>Associate Professor, Department of PG Studies In Shalaky Tantra S.V.M. Ayurvedic Medical College, Ilkal, District-Bagalkot-587125, Karnataka.

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**\*Corresponding Author**

**Dr. Saurabh S. Gobade**

PG Scholar Department of  
PG Studies In Shalaky  
Tantra S.V.M. Ayurvedic  
Medical College, Ilkal,  
District-Bagalkot-587125,  
Karnataka.

### ABSTRACT

**Background:** Sinusitis, or inflammation of the paranasal sinuses, is a common condition affecting a significant portion of the global population. In India, approximately 134 million individuals suffer from chronic sinusitis. Conventional treatments often include antibiotics, which may not be necessary for most cases. Ayurvedic medicine offers alternative therapeutic approaches for managing sinusitis, particularly through the principles of Shalaky Tantra, which addresses diseases of the head and neck. **Objective:** To evaluate the efficacy of a comprehensive Ayurvedic treatment regimen for managing chronic rhinosinusitis, specifically the condition of Apeenasa, characterized by nasal obstruction, loss of olfactory and gustatory sensations, and sinus-related headaches. **Methods:** A 42-year-old female patient diagnosed with Apeenasa, chronic nasal congestion, and frequent sneezing for the past five years was treated using a combination of Ayurvedic therapies including Deepana Pachana (digestive stimulation), Snehana

(oleation), Swedana (fomentation), Nasya Karma (nasal medication), Shodhana (purification), and Dhoomapana (smoke inhalation). The treatment also involved dietary modifications and lifestyle changes. Clinical assessments and diagnostic studies were performed before and after the 12-week treatment period. **Results:** The treatment led to

significant improvements in symptoms. Nasal obstruction severity reduced from 8 to 0, nasal discharge from 7 to 0, headache from 6 to 0, and loss of smell/taste from 8 to 1 over 12 weeks. Follow-up visits confirmed sustained symptom relief and no recurrence of symptoms.

**Discussion:** The Ayurvedic approach demonstrated effectiveness in managing chronic rhinosinusitis through a holistic treatment regimen that addressed both local symptoms and systemic imbalances. The combination of therapies resulted in marked improvements in symptom severity and overall quality of life for the patient. **Conclusion:** This case study supports the potential of Ayurvedic treatments in managing chronic rhinosinusitis. Future research with larger sample sizes and standardized protocols is needed to further validate these findings and explore the integration of Ayurvedic practices into conventional therapeutic frameworks for chronic sinusitis.

**KEYWORDS:** Chronic Rhinosinusitis, Apeenasa, Ayurveda, Nasya, Sinusitis Management, Deepana Pachana, Snehana, Shodhana.

## INTRODUCTION

The nasal cavity is a roughly cylindrical, midline airway passage that extends from the nasal ala anteriorly to the chin posteriorly. It is divided in the midline by the nasal septum. On each side, it is flanked by the maxillary sinuses and roofed by the frontal, ethmoid, and sphenoid sinuses from anterior to posterior. Despite its seemingly simple structure, sin nasal anatomy consists of intricate and subdivided air passages and drainage pathways that connect the sinuses. Humans have four paired sinuses, termed paranasal sinuses: the maxillary sinuses (the largest, located under the eyes in the maxillary bones), frontal sinuses (located superior to the eyes within the frontal bone), ethmoid sinuses (formed from several discrete air cells within the ethmoid bone between the nose and eyes), and the sphenoid sinuses (located within the sphenoid bone). Sinusitis is the inflammation of the mucosa of one or all of the paranasal sinuses. When all sinuses are involved, it is called pan sinusitis.<sup>[1]</sup>

One in eight Indians suffers from sinusitis, caused by the inflammation of the paranasal sinuses. Worldwide, sinusitis incidence is recorded at 31 million cases in the US (146 per 1000 population), while in India, it is estimated that 134 million Indians suffer from chronic sinusitis.<sup>[2]</sup> Sinusitis is one of the most common diagnoses in primary care, causing substantial morbidity and often resulting in time off work. It is also a common reason for antibiotic prescriptions by general practitioners.<sup>[3]</sup> Paranasal sinusitis, also known as rhino sinusitis, is defined by the European Academy of Allergology and Clinical Immunology as

“inflammation of the nose and the paranasal sinuses characterized by two or more of the following symptoms: blockage/congestion; discharge (anterior or postnasal drip); facial pain/pressure; reduction or loss of smell, lasting less than 12 weeks”.<sup>[4]</sup>

Sinusitis is generally triggered by a viral upper respiratory tract infection, with only 2% of cases complicated by bacterial sinusitis.<sup>[5]</sup> About 90% of patients in the United States are estimated to receive antibiotics from their general practitioner, yet most cases resolve without antibiotics, even if bacterial in origin.<sup>[6]</sup> A raised erythrocyte sedimentation rate and C-reactive protein have been found helpful.<sup>[7]</sup> and X-ray examination of the sinuses, ultrasonography, computed tomography, sinus puncture, and culture of aspirate have also been described. Medical treatment for chronic rhino sinusitis should begin with topical nasal steroids along with aggressive treatment of any underlying cause or co-morbid allergy. Oral steroids should be reserved for refractory cases, particularly when underlying allergy is present.<sup>[8]</sup> Once symptoms have resolved, it is essential to maintain improvement with long-term (>3 months) intranasal steroid treatment in the form of an aqueous nasal spray.<sup>[4]</sup>

Shalakya Tantra, one of the Astangas of Ayurveda, is an important branch dealing with diseases of the eye, ear, nose, teeth, throat, head, and mouth.<sup>[9]</sup> Paranasal sinusitis can be correlated to the disease Apeenasa in Ayurveda based on symptoms, as opined by all the Acharyas. According to Acharya Charaka, if Dushta Prathishyaya is not treated properly, it will lead to Apeenasa. In this disease, Vata and Kapha Doshas are aggravated. As there are not many studies on Apeenasa and its management, an effort was made to study the disease in detail.

Apeenasa is characterized by impairment of the sense of smell, crusting inside the nasal cavity, nasal obstruction, and headache due to aggravated Vata and Kapha Doshas. Symptoms include nasal obstruction, sometimes dry and sometimes wet nose, absence of smell and taste sensation, noisy breathing, and thick yellow discharge from the nose.<sup>[10]</sup> Other Nasagata Rogas include Pootinasa, which presents with a foul smell through the nose and mouth, and Dustapratishyaya, which presents with obstructed or open nose, wet or dry nose, and loss of smell sensation.<sup>[11]</sup>

Ancient Ayurvedic therapies like Nasya Karma, Akshitarpana (local therapy for eyes), and Putapaka (local therapy for eyes) are effective in managing Nasagata and Shirogata Rogas (diseases of the head). The nasal route of drug administration is a natural choice for treating

Nasagata Rogas (local nasal disorders) and other supraclavicular diseases. This therapy involves administering medicine through the nose in the form of ghee, oil, powder, liquid, or smoke. It is particularly useful for diseases occurring in organs situated above the clavicle but indirectly benefits the whole body by improving the functioning of the endocrine glands and nervous system.

Apeenasa, a Nasagata Roga and an Urdhvajatrughata Vyadhi, requires treatment that includes Deepana pachana, Snehana, Swedana, Vamana, Virechana, Dhoomapana, and Nasya. Dietary instructions include Tikshna, Laghupaki Ahara, and Ushnajalapana.<sup>[10]</sup>

**OBJECTIVE:** To evaluate the efficacy of a comprehensive Ayurvedic treatment regimen for managing chronic rhinosinusitis, specifically the condition of Apeenasa, characterized by nasal obstruction, loss of olfactory and gustatory sensations, and sinus-related headaches.

### Patient Information

**De-identified Patient Initials:** Mrs. K.S.

**Demographics:** 42-year-old female, resident of a semi-urban area in South India.

**Primary Concern:** Chronic nasal congestion and frequent sneezing, especially in the morning, for the past 5 years.

**Medical History:** Diagnosed with Apeenas by an Ayurvedic practitioner. History of sinusitis and seasonal allergies. No significant family history of similar complaints.

**Current Medications:** Occasional use of antihistamines and nasal decongestants with temporary relief.

**Lifestyle:** Sedentary lifestyle with minimal physical activity. Predominantly kapha-aggravating diet including dairy products and sweets.

### Clinical Findings

#### Chief Complaints

- Nasal obstruction
- Loss of olfactory and gustatory sensation
- Thick yellow nasal discharge
- Noisy breathing
- Headache

### History and Examination

- **History of Present Illness:** Six-month history of chronic nasal obstruction, thick yellow discharge, impaired smell and taste, and headaches.
- **Past Medical History:** Diagnosed with allergic rhinitis two years ago; frequent upper respiratory infections.
- **Physical Examination:** Swollen nasal mucosa with crusting and yellow discharge, tenderness over maxillary and frontal sinuses, mild erythema in oropharynx.

### Diagnostic Studies

- **Nasal Endoscopy:** Significant inflammation and obstruction in nasal passages.
- **CT Scan of Sinuses:** Opacification of maxillary and ethmoid sinuses, indicative of chronic sinusitis.
- **Blood Tests:** Elevated C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR).
- **Vital Signs**
  - Blood Pressure: 120/80 mm Hg
  - Pulse Rate: 78 bpm
  - Respiratory Rate: 16 breaths per minute
  - Temperature: 98.6°F

**Dosha Imbalance:** Predominantly Kapha dosha with involvement of Vata dosha.

### Treatment Plan

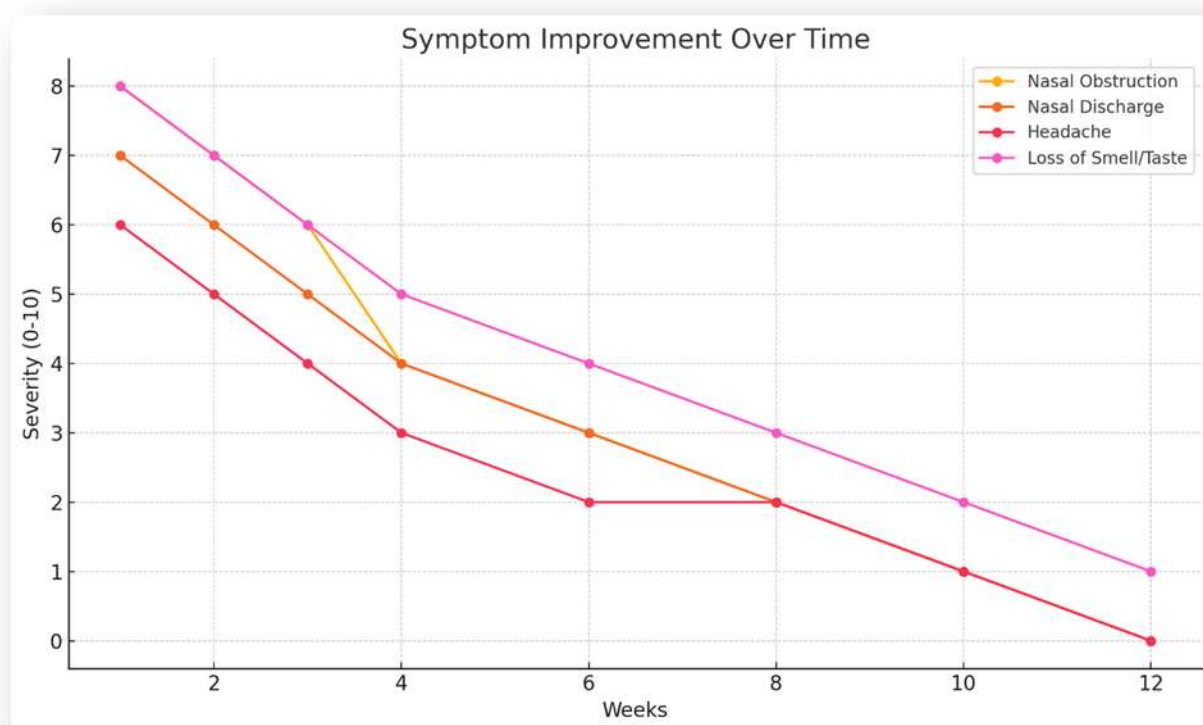
- **Ayurvedic Management**
  - **Deepana Pachana (Digestive and Metabolic Stimulation):** Trikatu Churna (Pippali, Shunthi, Maricha) 1 gram twice daily before meals; Chitrakadi Vati, 2 tablets twice daily before meals.
  - **Snehana (Oleation Therapy)**
    - **Internal:** Tila Taila (Sesame Oil) 10 ml orally every morning on an empty stomach for 7 days.
    - **External:** Warm sesame oil massaged on forehead and nasal area daily.
  - **Swedana (Fomentation Therapy):** Nadi Sweda (medicated steam inhalation) to nasal and sinus area for 10 minutes daily.
  - **Nasya Karma (Nasal Medication):** Anu Taila, 2 drops in each nostril twice daily after Swedana.

- **Shodhana (Purification Therapy):** Vamana (Emesis Therapy) followed by Virechana (Purgation Therapy) with Trivrit Leha.
- **Dhoomapana (Medicated Smoke Inhalation):** Inhalation of smoke from herbs like Haridra (turmeric) and Vacha (*Acorus calamus*) for 5 minutes daily.
- **Dietary and Lifestyle Modifications:** Tikshna (sharp), Laghupaki (light) foods, and Ushna Jala (warm water); avoidance of Guru (heavy) and Abhishyandi (mucus-forming) foods.

### Follow-Up and Monitoring

- Weekly follow-ups for the first month, bi-weekly thereafter.
- Regular assessment of symptom severity, nasal patency, olfactory function, and overall quality of life.

### OBSERVATIONS



### Interpretation

- **Nasal Obstruction:** Gradually reduced from a severity of 8 to 0 over 12 weeks.
- **Nasal Discharge:** Decreased from a severity of 7 to 0 over 12 weeks.
- **Headache:** Reduced from a severity of 6 to 0 over 12 weeks.

- **Loss of Smell/Taste:** Improved from a severity of 8 to 1 over 12 weeks.

This chart shows the positive impact of Ayurvedic treatments on chronic rhinosinusitis symptoms, indicating significant improvements within 12 weeks.

## RESULTS

After four weeks of treatment, the patient reported significant improvement in nasal obstruction, reduction in nasal discharge, and restoration of smell and taste. Headaches reduced in frequency and severity. Continued treatment over three months led to sustained improvement, and follow-ups indicated no recurrence of symptoms.

## DISCUSSION

The Ayurvedic management of Apeenasa through a combination of Deepana Pachana, Snehana, Swedana, Nasya Karma, Shodhana, and Dhoomapana showed efficacy in reducing chronic rhinosinusitis symptoms. The holistic approach addressed both local symptoms and systemic imbalances, supporting the patient's overall health.

## CONCLUSION

This case study demonstrates the potential of Ayurvedic treatments in managing chronic rhinosinusitis. Further clinical research and standardized protocols are necessary to validate these findings and integrate Ayurvedic practices into broader therapeutic frameworks for Apeenasa.

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