

## Successful Ayurvedic Treatment of a Polypoidal Mass in the Maxillary Sinus: A Single-Case Study

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### KEYWORDS

Mucosal retention cyst, Maxillary sinusitis, Inferior turbinate hypertrophy

### ABSTRACT

**Objectives:** To document a case of a mucosal retention cyst with a soft tissue density polypoidal lesion in the right maxillary sinus, successfully managed using Ayurvedic treatment modalities.

**Methods:** A 23-year-old male patient presented with a one-month history of throat itching and severe headaches, accompanied by a two-year history of post-nasal dripping with thick, jelly-like, slightly yellowish nasal discharge. Despite receiving conventional treatment, he experienced only temporary relief. Physical examination revealed tenderness over the bilateral maxillary sinus and left-side ethmoidal sinuses. Anterior rhinoscopy showed a congested nasal mucosa, deviated septum towards the right side with a bony spur, and moderate left inferior turbinate hypertrophy. Computed Tomography of the Paranasal Sinuses (CTPNS-A) revealed pansinusitis with a polypoidal lesion in the right maxillary sinus, suggestive of a polyp or mucous retention cyst. The patient was treated with a combination of Ayurvedic medications, including Chitrakadi Vati, Dashamoola Haritaki Avaleha, Haridrakhanda, Gandharvahasthaadi taila, and Rasnadi churna.

**Results:** After one month of treatment, the nasal mucosa showed no congestion, and tenderness over the maxillary and ethmoidal sinuses was significantly reduced. However, left inferior turbinate hypertrophy and septum deviation remained unchanged. After six months of treatment, tenderness over the sinuses was completely resolved. Contrast-Enhanced Computed Tomography (CECT) of the Paranasal Sinuses (PNS) showed no evidence of a polypoidal or cystic lesion in the maxillary sinus. The deviated nasal septum towards the right side with a bony spur and left inferior nasal turbinate hypertrophy persisted.

**Conclusions:** This case demonstrates the successful resolution of a mucosal retention cyst or polyp in the right maxillary sinus after three months of Ayurvedic management, highlighting the potential efficacy of Ayurvedic treatment modalities in managing such conditions

### 1. Introduction

A 23-year-old male patient has approached the outpatient department of *Shalakyā tantra* on 4 July, 2023 with chief complaints of one month history of itching in throat region, severe headache accompanied by a two-year history of post-nasal dripping with thick, jelly-like, slightly yellowish nasal discharge. The symptoms were aggravated by intake of cold drinks, and sweets, and exposure to cold and dust. The patient has taken several courses of modern conventional management during the past 2 years. The patient used to get relief from the symptoms temporarily after taking medications but relapse was noted.

## 2. Methods

A 23-year-old male patient presented with a one-month history of throat itching and severe headaches, accompanied by a two-year history of post-nasal dripping with thick, jelly-like, slightly yellowish nasal discharge. Despite receiving conventional treatment, he experienced only temporary relief. Physical examination revealed tenderness over the bilateral maxillary sinus and left-side ethmoidal sinuses. Anterior rhinoscopy showed a congested nasal mucosa, deviated septum towards the right side with a bony spur, and moderate left inferior turbinate hypertrophy. Computed Tomography of the Paranasal Sinuses (CTPNS-A) revealed pansinusitis with a polypoidal lesion in the right maxillary sinus, suggestive of a polyp or mucous retention cyst. The patient was treated with a combination of Ayurvedic medications, including *ChitrakadiVati*, *DashamoolaHaritakiAvaleha*, *Haridrakhanda*, *Gandharvahasthaadi taila*, and *Rasnadi churna*.

### Clinical finding

The patient was afebrile. The pulse rate was 76/min.

The blood pressure 126/82 mmHg.

No any abnormality was noted in the functioning of the respiratory, circulatory, and digestive systems.

### Nasal Examination

On examination,

sinus examination- tenderness over bilateral maxillary sinus and left side ethmoidal sinuses was noted. On an anterior rhinoscopy, it was noted that the nasal mucosa was congested, and septum was deviated toward the right side with bony spur. Left inferior turbinate hypertrophy was significant.

### Diagnostic assessment

**CECT PNS(04-07-23)**– A soft tissue density polypoidal lesion is noted in right maxillary sinus attached to its medial wall s/o polyp/mucous retention cyst.

Deviated nasal septum toward right side by 4.8 mm with bony spur formation and left inferior turbinate hypertrophy.

### Dasha vidhpariksha

*Prakriti*(~somatic constitution) - *Vatakaphaja*

*Vikriti*(~morbidity) – *kaphavata pradhana with Rasa, rakta dusti*

*Sara*(~excellence of tissue elements) -

*Samhanana*(~compactness of organs) - *madhyam*

*Pramana*(~measurement of body constituents) -

*Satwa*(~psychic condition)-

*Satmya*(~haemoglobin) -

*Ahara shakti*(~power of intake and digestion of food) - *Madhyam*

*Vyayam shakti*(~power of performing exercise) - *Madhyam*

*Vayu* – *madhyam*

### Follow up and outcome

**After 1 month** of treatment sinus examination and nasal rhinoscopy was done.

**Sinus examination** - mild tenderness over maxillary and ethmoidal sinuses was noted.

**Nasal Rhinoscopy** – congestion was absent in nasal mucosa, and septum was deviated toward the right side with bony spur. Left inferior turbinate hypertrophy was significant.

**After 6 month** of treatment sinus examination and nasal rhinoscopy was done.

**Sinus examination** - no tenderness over sinuses.

### CECT PNS( 16-01-24)

Bilateral frontal, left ethmoid and right maxillary sinusitis.

Deviated nasal septum towards right side with bony spur formation and left inferior nasal turbinate hypertrophy.

## 3. Results

After one month of treatment, the nasal mucosa showed no congestion, and tenderness over the maxillary and ethmoidal sinuses was significantly reduced.

Resolution of a mucosal retention cyst or polyp in the right maxillary sinus after three months of Ayurvedic management.

Headache, postnasal dripping, and nasal obstruction were reduced with the adopted therapeutic approaches. Mouth breathing and sleep apnea were also resolved. There was no recurrence of symptoms after 6 months of follow-up.

#### 4. Discussion

In *Dushta pratishyaya*, *tridosha* is involvement with predominance of *Vata*<sup>1</sup> and *Kapha* so *agnivardhana* and *vyadhishamana* is needed.

According to Acharyas, *Chitrakadi Vati* is endowed with *Laghu*, *Tikshna*, and *RukshaGunas*, along with *Katu* and *Tikta Rasas*, which collectively alleviate aggravated *Kapha*, while its *Ushna Virya*, coupled with *Tikshna* and *Snigdha Gunas*, effectively counteracts *VataDosha*. Due to *Madhurarasa*, *SnigdhaGuna*, *anushnasitavirya*, *Maduravipaka* it balances the *Pitta dosha*, it help in increasing *Agni* in *Agnimandya* disease. *ChitrakadiVati* exhibits *Deepan* (appetizer), *Pachana* (digestive), and *Grahi* (absorbent) properties, which aid in digestion and absorption. Furthermore, its *Ruksha* (dry) *Guna* helps reduce *SrotogataAma* (toxins in the channels) and *Ati Pravritti* (excessive flow) of the *Doshas*. *Gandharvahastadi Taila* induces a mild laxative effect, facilitating the elimination of toxins and waste products from the body. This process cleanses the *srotas*, or bodily channels, and enhances nutrient delivery to tissues, promoting overall health. The *taila's* therapeutic properties help restore the normal physiological direction (*Anuloma Gati*) of *Vatadosha*, which is essential for maintaining homeostasis. Pharmacologically, *Gandharvahastadi Taila's* efficacy can be attributed to the presence of *Eranda beej*, which exhibits opposing properties to *Vata dosha*. It has anti-inflammatory and analgesic properties. *Erandabija* (*Ricinus communis*) exhibits *vibhedana* (purgative) and *srotoshodhana* (channel cleansing) activities, facilitating the elimination of toxins and waste products from the body. Additionally, it possesses *anulomana* properties, which help restore the normal physiological direction of *Vata dosha*.

*Sunthi* (*Zingiber officinale*), another key ingredient in *Gandharvahastadi Taila*, is characterized by its *ushna* (thermogenic), *snigdha* (unctuous), and *pachaka* (digestive) properties. These attributes enable *Sunthi* to pacify *Vata* and *Kapha doshas*. Furthermore, *Sunthi* possesses analgesic and anti-inflammatory properties, which contribute to its therapeutic efficacy.

*Dashmoola Haritaki leha* are primarily *Ushna veerya*, alongside a few *sheeta veerya* drugs. The majority of the *Dravyas* in *Dashmoola Haritaki leha* are *Tridosha Samaka*, *Pittakapha samaka*, and *Sothanasaka*<sup>2</sup>. Numerous studies have demonstrated the efficacy of *DashmoolaHaritaki Leh*, a polyherbal formulation comprising *Dashamoola*, *Haritaki*, *Yavakshara*, and other ingredients, in managing Chronic Sinusitis through its anti-inflammatory, analgesic, and antimicrobial actions, ultimately reducing inflammation and alleviating signs and symptoms of the condition. This formulation exhibits a combination of *Tikta*, *Katu*, *Madhura*, and *Kashaya rasas*, with *Kashaya* being the dominant *rasa*, and possesses *Laghu*, *Ruksha*, and *Tikshna gunas* as its primary properties, along with a few herbs exhibiting *Guru*, *Picchila*, and *Snigdha* properties, and the *Laghu guna* performs *Lekhana* (scraping/cleansing) and *Ropana* (healing) *karmas*<sup>3</sup>. *TikshnaGuna* does *Sodhana* and *KaphavataharaKarma* as antagonist<sup>4</sup>. *RukshaGuna* act as *Soshana* and *Kaphahara*<sup>5</sup>. *KashayaRasa* relieves *Pitta* and *Kapha* dosha along with the effects of *Sodhana*<sup>6</sup> while *KatuRasa* combats the *Kapha*, clears the obstruction in the *Srotas* and accomplishes *Sodhana*<sup>7</sup>. *TiktaRasa* owns the *Kantha-Sodhana* and *Lekhana* property<sup>8</sup>.

*Haridra khanda*<sup>9</sup> is indicated in inflammatory disorders. It is effective in *udarda*, *shitapitta*, *kotha*. Various ingredients of *Haridra Khanda* are having *Vata-KaphaShamaka*<sup>10</sup>, *Tridoshashamaka* properties, which pacifies affected doshas in there normal level. The main ingredient of *HaridraKhanda* is turmeric which is processed with ghee and sugar candy. It is one of the best blood purifier so it can be employed in all disease which originate from *Raktadusti* (vitiation of blood). *Haridra* possesses *Tikta Rasa*, *Katu Vipaka*, *Ushna Veerya*, *Laghu* and *Ruksha gunas*, with the *Ruksha guna* acting as a *Lekhana* (scraping agent) on *Apachit Meda*, facilitating the digestion of *Aama*,

*Kapha*, and *Meda*, and exhibiting anti-inflammatory and anti-allergic activities<sup>11</sup>. *Haridra* exhibits a multifaceted therapeutic profile, encompassing *Kledaghna*, *Kapha-Medo lekhana*, *Rakta shodhana*, and *Vrana Lekhana* properties. Additionally, its combination with other ingredients possessing *Deepana* and *Pachana* properties helps alleviate *Agnimandhya*, thereby disrupting the disease pathway. Notably, *Haridra* has been proven to exhibit antihistamine activity, scavenging free radicals and bolstering the body's immune defences against allergies and diseases.

*Rasanadichurna*: *Katurasa* (pungent taste), *Usnavirya* (hot potency), *Laghuguna* (light in property) and *KatuVipaka* (pungent) predominant. Hence it can be used as a topical application over scalp in all the *Kapha* vitiated conditions like sinusitis, rhinitis.

**Acknowledgment** –Iwhole heartedly acknowledge the financial support provided by the IoE, Banaras Hindu University for the Seed Grand project (under Dev. Scheme No.6031).

#### References:

<sup>1</sup> Vaidyajadavji Trikamjiacharya, Sushrutha Samhitha of Sushrutha, Dalhana's Nibandhasangraha, Uttaratantra 24/1, Chaukhambha Orientalia, Varanasi, Edition reprint 2019: 651.

<sup>2</sup> Murthy K.R. Srikantha, English translation on Astanghridaya of Vagbhata. Reprinted edition. Chikitsasthana; Vol2. Swayathuchikitsa: Chapter17, Verse 14. Varanasi: Chaukhambha Krishnadas academy, 2010: p. 459-60.

<sup>3</sup> Susruta Samhita. Nibandhasamgraha Commentary of Sri Dalhanacharya & the Nyachandriaka Panjika of Sri Gayadasacharya (Edited by Vaidya Jadavji Trikamji Acharya & Narayan Ramacharya Kavyatirtha). Sutra sthana, 46<sup>th</sup> Chapter Annapanavidhi Adhyaya. (519) Reprint Edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2010. p 252.

<sup>4</sup> Bhavamishra. Bhavaprakash. Edited by Vidyoniti Hindi Commentary, Notes & Appendix by Sri Brahmasankara Mishra & Rupalalaji Vaisya. First Part. 6th Chapter, Mishraka Prakarana. (204) Reprint Edition. Varanasi: Chaukhambha Sanskrit Bhavan; 2013. p- 189.

<sup>5</sup> Vagbhata. Astanga Hridaya. with the commentaries Sarvangasundara of Arundatta & Ayurvedarasayan of Hemadri. Annoted by Dr Anna Moreswara Kunte, edited by Pt. Sadasiva Sastri Paradakara. Uttarsthana, 39th Chapter Rasayanavidhi Adhyaya (18), Reprint Edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2012. p-923

<sup>6</sup> Susruta Samhita. Nibandhasamgraha Commentary of Sri Dalhanacharya & the Nyachandriaka Panjika of Sri Gayadas acharya (Edited by Vaidya Jadavji Trikamji Acharya & Narayan Ramacharya Kavyatirtha). Sutra sthana, 42th Chapter Rasavishesha vijyaniya Adhyaya (10) Reprint Edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2010. p 186. .

<sup>7</sup> Susruta Samhita. Nibandhasamgraha Commentary of Sri Dalhanacharya & the Nyachandriaka Panjika of Sri Gayadas acharya (Edited by Vaidya Jadavji Trikamji Acharya & Narayan Ramacharya Kavyatirtha). Sutra sthana, 42th Chapter Rasavishesha vijyaniya Adhyaya. (9/4). Reprint Edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2010. p 185-6.

<sup>8</sup> Agnivesha. Charaka Samhita. Revised by Charaka & Dridhbalawith the Ayurveda- Deepika commentary of Chakrapanidutta. Edited by Vaidya Jadavji Trikamji Acharya. Sutrasthana, 26th Chapter, Atreyabhadrakapya Adhayaya (42). Reprint Edition. Varanasi: Chaukhambha Prakashana; 2013. p.144-5

<sup>9</sup> Bhaishajya ratnavali of Sri Govind Dasji Volume-III, Eited and enlarged by- Bhisagratna Shri Brhm Shankar Mishra, Commented upon by- Shri Kaviraj Ambikadatta Shastri, English translation by- Dr. Kaviraj Lochan, Chaukhambha Sanskrita Sansthana Varanasi Edition reprint – 2017, Chapter- 11, Page no-703.

<sup>10</sup> Dravyaguna Vigyanam, Vol.II.; Acharya P.V. Sharma; 2005.

<sup>11</sup> Database on Medicinal Plants used in Ayurveda & Siddha, Vol: 1-VIII, P.c. Sharma, M.B. Yelne, T.J. Dennis, S.Selvarajan, M.M. Padhi, A.K. Mangal, Reprint 2008.