



**ORIGINAL RESEARCH PAPER**

**Ayurveda**

**A CASE REPORT ON CHRONIC RHINOSINUSITIS**

**KEY WORDS:** Chronic Rhinosinusitis, Virechana, Avapeedanasyam.

<b>Dr. Maya Mohan A*</b>	Associate Professor, PNNM Ayurveda Medical College, Cheruthuruthy, Thrissur. *Corresponding Author
<b>Dr. Smitha A V</b>	Associate Professor, PNNM Ayurveda Medical College, Cheruthuruthy, Thrissur.
<b>Dr. Anuja. B</b>	Associate Professor, PNNM Ayurveda Medical College, Cheruthuruthy, Thrissur.

**ABSTRACT**

Chronic Rhinosinusitis is defined as persistent symptomatic inflammation of the nasal and sinus mucosa. Ayurvedic treatments are very effective in the management of chronic sinusitis without any deleterious side effects than the conventional treatment options like corticosteroids therapy and endoscopic sinus surgery .The present case 36 year old cut lady, housewife, diabetic referred to Panchakarma OPD of PNNM Ayurveda Medical College with complaints of recurrent episodes of head ache, occasional sneezing, post nasal dripping, nasal congestion and pain on back of eyes since 1 year was diagnosed as *Kaphaja sirasoola* and managed for 3 months. Medicines with *Virechana* property and *Teekshna guna* were selected to enhance mucociliary clearance and improve sinus drainage . So *Avapeeda nasya* with *Tulsi swarasa* mixed with *Madhu* and *Saindhavam* was administered for 7 consecutive days followed by *Anutaila pratimarsa nasya* till all the symptoms got relieved. After that *Rasayana* drugs were given. Follow up was done for 2 years. Overall effect of therapies after the course of treatment showed complete remission and there was no recurrence.

**INTRODUCTION**

Chronic rhinosinusitis is an inflammation of the sinus or nasal passages occurring for more than 12 weeks at a time. It can be caused by infection, growth in sinuses (nasal polyp), swelling of lining of sinuses (respiratory tract infections or allergies). Mostly it is secondary to an unresolved upper respiratory tract infection, where muco ciliary clearance is affected. People with allergies and asthma are more vulnerable. The prevalence of CRS (chronic rhinosinusitis) measured in epidemiologic studies is 5%-12%. [1] Chronic rhinosinusitis is diagnosed clinically with a physical examination and focused sinonasal history. It is diagnosed when atleast two of the following four symptoms are present and occur for more than 12 weeks. (1) purulent nasal drainage (2) facial or dental pain (3) nasal obstruction (4) hyposmia. [2]

The sinus cavities allow air to be filtered during inhalation. For the antigens to be filtered and expelled, sinuses need to drain. Chronic inflammation can cause obstruction to the nasal passage, hinder drainage and lead to lower oxygen tension. This creates foci for bacteria to build up. Ciliary dysfunction or structural abnormalities can further exacerbate this process. [3]

Chronic sinusitis can be taken as kaphaja sirasoola mentioned by classical texts in Ayurveda. In Kaphaja sirasoola, there is loss of taste, feeling of heaviness of head, rigidity and cold, veins not pulsating, lassitude, pain mild during day and severe at nights, stupor, swelling of the eye sockets, itching in ears and vomiting. [4]

**CASE DESCRIPTION**

A 36 year old, housewife, moderately built came to the OPD of PNNM Ayurveda college with complaints of recurrent headache since 1 year, aggravated since 1 month. Also had complaints of pain and puffiness on the face and pain under the eyes more on left side. She had occasional sneezing since 1 year. Post nasal dripping and Nasal congestion also present causing difficulty in breathing. She also complaints of tiredness. Patient had a history of typhoid fever 1 year back. After that she had recurrent attack of throat pain, body pain, heaviness of head, acidity, head ache and occasional sneezing. At that time she used to take allopathic medication. Before 6 months, she had a viral fever attack. At that time also complaints got aggravated. She used to take bath in pond nearby but now she has stopped bathing in pond due these

complaints, as she felt discomfort during these days. Heaviness of head increases on bending down the head and at night time. Episodes of headache usually occurs after exposure to cold climate or after travelling. Last one month all the complaints are aggravated and so she consulted an allopathic doctor, and they advised for a course of antibiotic and to take CT scan. Seeing the report, he suggested for endoscopic sinus surgery. So she came to our hospital seeking alternative treatment.

Appetite was decreased. She used to take non vegetarian diet daily. Bowel-sometimes constipated, Sleep-now disturbed due to head ache.

Known diabetic since 5 years, under allopathic medication. No other medical or surgical history.

No history of similar complaints in family members

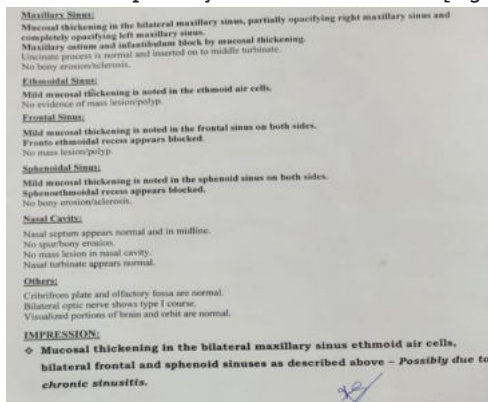
**Systemic Examinations And Investigations**

On inspection-puffiness of face more on left side

On examination-tenderness over maxillary, frontal sinus areas more on left.

Both inferior turbinate was inflamed more on left.

PLAIN CT SCAN OF PNS- impression-mucosal thickening in the bilateral maxillary , ethmoid air cells, bilateral frontal and sphenoid sinuses -possibly due to chronic sinusitis. [Figure 1]



**B. Therapeutic Interventions**

**Phase 1 From 7/6/2019-15/6/2019**

**Internal Medicines (table-1)**

Varanadi kashayam	60 ml twice daily before food
Vettumaran gulika	1-0- 1 with kashayam
Guggulupanchapala choornam	0-0-1 tsp after food
Guloochyadi kashaya panajalam	2 litres

**Procedures Done-**

Local Abhyanga (face and neck) was done with tila tailam with saindhava for 10 minutes, Naadi sweda with dasamoolam kashayam for 10 minutes

followed by virechana nasyam with tulasi swarasam+2 drop honey+1 pinch induppu

Done for 7 days 2ml, 2.5ml, 3ml, 3.5ml, 3 ml, 2.5ml, 2 ml on consecutive days. (starting by 2ml, increasing by .5 ml each day)

Daily fresh Tulsi leaves are taken. It is washed properly, dried and crushed. Swarasa is taken by squeezing. To this 2 drops of honey and a pinch of saindhava is added and is used for nasya procedure.

After nasya -kabala with saindhava jalam and dhoomapana with haridradi varti was given

Lepanam on sinus areas- rasnadi choornam+ jambeera swarasam for 7 days. Patient was advised to spit out the kapha that is coming.

Patient was advised to take rest, not to sit below revolving fan, also not to go outside to avoid direct suns heat. She is advised to take light food. Advised not to sleep during day time also not to get head bath during nasya days. Proper sleep is also ensured.

**On Discharge For Three Weeks (phase 2 From 15/6/2019 - 8/7/2019) (table-2)**

Dasamoolakatutrayam kashayam 60 ml+ 1 tsp vyoshadi vatakam + honey	in morning before food
Vyaghyadi kashayam 60 ml+2 pinch bhavana pippali choornam	was given in evening after food
Bruhat triphala choornam	1 tsp bedtime with hot water
Pratimarsha nasya with anutailam	6 drops each nostril for first week 3 drops each nostril for next two week

**Next One Month (phase 3 From 9/7/2019 - 9/8/2019) (table-3)**

Sidha lehyam (chitraka hareethaki)	1 tsp twice daly
Dasamoolam kashayam	60 ml twice daily before food
Ksheerabala nasyam pratimarsam	3 drops each nostril

Advised to practice pranayama

**Next One Month (phase 4 From 9/8/2019 - 9/9/2019)**

Indukantham ghritam -1 tsp with ½ tsp vyoshadi vatakam bed time.

**Assessment Criteria**

Done on the basis of relief observed in the presenting complaints based on SNOT-22 (sinonasal outcome test-22). SNOT is a validated questionnaire that was developed and validated to assess the burden of CRS symptomatology. (Figure.2)

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Date: \_\_\_\_\_

**SINO-NASAL OUTCOME TEST (SNOT-22)**

Please rate your problems as they have been over the past **two weeks**.

	No Problem	Very Mild Problem	Mild or slight Problem	Moderate Problem	Severe Problem	Problem as bad as it can be	5 Most Important Items
1. Considering how severe the problem is when you experience it and how often it happens, please rate each item below on how "bad" it is by circling the number that corresponds with how you feel using this scale: →							
1. Need to blow nose	0	1	2	3	4	5	○
2. Nasal Blockage	0	1	2	3	4	5	○
3. Sneezing	0	1	2	3	4	5	○
4. Runny nose	0	1	2	3	4	5	○
5. Cough	0	1	2	3	4	5	○
6. Post-nasal discharge	0	1	2	3	4	5	○
7. Thick nasal discharge	0	1	2	3	4	5	○
8. Ear fullness	0	1	2	3	4	5	○
9. Dizziness	0	1	2	3	4	5	○
10. Ear pain	0	1	2	3	4	5	○
11. Facial pain/pressure	0	1	2	3	4	5	○
12. Decreased Sense of Smell/Taste	0	1	2	3	4	5	○
13. Difficulty falling asleep	0	1	2	3	4	5	○
14. Wake up at night	0	1	2	3	4	5	○
15. Lack of a good night's sleep	0	1	2	3	4	5	○
16. Wake up tired	0	1	2	3	4	5	○
17. Fatigue	0	1	2	3	4	5	○
18. Reduced productivity	0	1	2	3	4	5	○
19. Reduced concentration	0	1	2	3	4	5	○
20. Frustrated/restless/irritable	0	1	2	3	4	5	○
21. Sad	0	1	2	3	4	5	○
22. Embarrassed	0	1	2	3	4	5	○

Please mark the most important items affecting your health (maximum of 5 items) ↑

**2. Facial pain /pressure is assessed by visual analogue scale (Figure-3)**



**Observations And Result (table-4)**

	SNOT22 SCORE	VISUAL ANALOGUE SCALE
BEFORE TREATMENT	73	4
AFTER I WEEK OF VIRECHANA NASYA	27	2
AFTER 1 MONTHS	15	0
AFTER 2 MONTHS	6	0
AFTER 3 MONTHS	0	0

By seven days of treatment main complaints like headache, facial pain, fatigue, congestion of nose got reduced much and SNOT score got considerably reduced from 73 to 27. Facial pain got reduced from 4 to 2 in visual analogue scale. In the second phase, during review it is found that allergic symptoms like sneezing, post nasal dripping got reduced, sense of smell got normal, began to get good sleep. SNOT score also reduced from 27 to 15. Facial pain which is assessed by visual analogue scale, value got reduced to zero ie. no pain condition.

In the third phase on review, SNOT22 score got down to six. ie. all the complaints got reduced.

**DISCUSSION**

Etiological factors for kaphaja sirasoola are sedentary life style, intake of heavy and unctuous food, excessive sleeping, day sleeping, excessive play in water etc. While considering the pathology of chronic rhinosinusitis, it can be explained in different conditions like kaphaja sirasoola, kaphaja pratisyaya and dushta pratisyaya. As it is pratisyayajanya vikara, the doshas involved mainly are kapha and vata. As the disease is chronic and there is stagnation of mucous secretion and loss of muco ciliary clearance, we have to consider that there is obstruction in movement of the vata by kapha avarana.[5]

In the first phase varanadi kashayam with vettumaran gulika given as kaphamedo hara and it relieves mandagni and is anti-inflammatory in action. Guggulupanchapalam given to relieve infection if any. Goolochyadi panajalam is given to relieve gastric complaints. In the initial phase, there wont be much effect in giving only internal medication, as kapha is in praboota dustaavastha and may be deep seated with srothorodha. It should be removed through the nearest route. So teekshna virechana nasya with tulasi swarasa was administered for its elemination.

Tulsi has qualities like katutiktika rasa, ushna veerya, katu vipaka, laghu, rooksha, teekshna guna and krimigna. [6] It is mixed with honey and saindhavam. Saindhavam increases its sookshma quality there by increasing its penetrating power. Madhu and saindhavam has power of kapha vilayana (liquefaction) chedana (separation of adhesion). So they are added to increase the potency. [7,8] As there is no anatomical abnormalities, proper removal of dusta kapha is possible by virechana nasya. Thus better relief is obtained in a short period.

In the 2 nd phase that is for shesha dosha samana, internal medications for allergic symptoms are incorporated on discharge medicine. Dasamoolakatutraya and vyaghyadi kashaya given as they are vatakapha hara in nature. Pratimarsha nasyam with anutailam given for sesha kapha sodhana. After avapeeda nasya there is a chance of getting vata kopa. Taila is vatahara and it never increases kapha due to its ushna property. Taila due to the adherent property of removing malasanga detaches remaining kapha, so anutaila is used here.

Rasayana medications for increasing immunity are given in next phase. Chitraka hareetaki rasayana told in Chakradattam nasadhikaram, dasamoolam kashayam which is tridoshasamana and ksheerabala pratimarsha nasyam (brimhana nasya) is given to strengthen the indriyas and to prevent the recurrence.

In last phase, indukantham ghrita was given to improve overall immunity thereby preventing recurrence and allergic reactions.

3 months treatment was given. Patient was advised healthy food habits. Patient didn't get complaints by 2 year.

## CONCLUSION

As far as ayurveda is concerned, suddha chikitsa i.e. the pure form of treatment which corrects the pathology and at the same time not creating any sort of side effects is highly important. This study is highly significant in research point of view as much reduction in clinical symptoms was appreciated after the 7 days of nasya treatment itself. After the course of treatment complete remission occurred and there is no recurrence by 2 years. Ayurveda owns a highly Individualized and experience based approach. The medications and panchakarma procedures done in this patient are of immense importance to eliminate vitiated dosha, to remove ama, to correct agni and to regain the patency of srotas. Immunological benefits from these formulations are time tested and hence for its wider usage, much more evidence based reports are to be published. Being a single case study there are many limitations and it can be modified by conducting it in large sample size.

## REFERENCES

1. Dirk Dietz de Loos, Evelijn S. Lourijse, Prevalence of chronic rhinosinusitis in the general population based on sinus radiology and symptomatology march 2019 (pubmed)
2. Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical practice guideline (update): adult sinusitis. *Otolaryngol Head Neck Surg*. 2015;152(2 suppl):S1-S39.
3. Heath J, Hartzell L, Putt C, Kennedy JL. Chronic Rhinosinusitis in Children: Pathophysiology, Evaluation, and Medical Management. *Curr Allergy Asthma Rep*. 2018 May 29;18(7):37. [PubMed]
4. Vagbhata (Arunadatta and Hemadri commentary) Astanga Hridaya .Reprint-10, Hari Sadasiva Sastri Paradakara bhisagacharya H, editor. Varanasi: Caukambha orintalia; 2019. Uttarasthanam chapter 23/10 P 859.
5. Vagbhata (Arunadatta and Hemadri commentary) Astanga Hridaya .Reprint-10, Hari Sadasiva Sastri Paradakara bhisagacharya H, editor. Varanasi: Caukambha orintalia; 2019. Uttarasthanam chapter 23/1-3 P 858.
6. Dr. JLN Sastri, Illustrated dravya guna vijnana study of the essential medicinal plants in Ayurveda Varanasi choukhambha orientalia vol2 P-433

7. Vaidya yadavji trikamji acarya, Charaka Samhita( chakrapani commentary) charaka samhita kalpasthanam chapter 1/ 15th sloka. chaukhambha surbharati prakashan, Varanasi. 2011, p-654
8. Vagbhata (Arunadatta and Hemadri commentary) Astanga Hridaya .Reprint-10, Hari Sadasiva Sastri Paradakara bhisagacharya H, editor. Varanasi: Caukambha orintalia; 2019. sootasthanam chapter 6/143 P 115.