

AYURVEDIC MANAGEMENT OF ATROPHIC RHINITIS: A SINGLE CASE REPORT

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ABSTRACT

Atrophic rhinitis, a chronic nasal condition, involves progressive degradation of nasal mucosa and underlying bone, accompanied by malodorous discharge termed ozaena. Globally, prevalence estimates range from approximately 0.3% to 7.8% among otolaryngology patients. The ICD code J31.0 designates atrophic rhinitis in medical diagnosis. Atrophic rhinitis is categorized into primary and secondary types, the primary etiology remains elusive, with proposed factors including nutritional deficiencies, genetics, hormonal influences, and bacterial infections such as *Klebsiella ozaena* and *Bacillus fetidus*. Histopathological, primary atrophic rhinitis exhibits squamous metaplasia. In ayurveda atrophic rhinitis correlated with *Apeenasa* under *Nasa Roga*, attributing its pathogenesis to the vitiation of *Vata* and *Kapha doshas*, resulting in tissue degeneration (*dhatu kshaya*), impaired nasal function (*Nasasrotodusti*), *srotorodha* (channel obstruction), and foul-smelling discharge (*durgandha nishwas*). This case report presents the successful Ayurvedic management of a 40-year-old male patient diagnosed with Atrophic Rhinitis, exhibiting classical symptoms of nasal obstruction, crusting, anosmia, and foul-smelling discharge.

KEYWORDS: *Apeenasa*, Atrophic Rhinitis, *Jalneti*, *Nasarogas*, *Nasyakarma*, Ozaena.

INTRODUCTION

Atrophic rhinitis, commonly referred to as ozaena, is distinguished by sclerotic alterations in the mucous membrane and irregular patency of nasal passages. This condition is typified by atrophic modifications in both the mucosa and underlying bones, resulting in the production of thick, viscid secretions. Primary atrophic rhinitis diagnosis hinges on clinical observation, with attention drawn to three main indicators: enlarged nasal passages (roomy passage), nasal crusts, and a foul odor.^[1]

In tropical countries such as India, the condition is commonly observed, predominantly affecting young and middle-aged adults, particularly females (F: M = 5.6: 1).^[2] Suggested atrophic rhinitis as common condition in India, reaching up to 0.3%-1% of population in countries with higher prevalence.^[3] Based on symptoms, in *Ayurveda*, it can be correlated with *Apeenasa*, and here we have tried to analyze the effect of treatment mentioned for it, which includes *Shodhana Nasya*, *Jalneti*, *Dhoomapana* and *Rasayana Chikitsa*.

CASE HISTORY

A 40-year-old male patient visited the *Shalakya* ENT OPD on 13th may 2024. He presented with complaints of

bleeding from nose (on/off), which escalates during summer and winter since past 12 years, along with nasal blockage and difficulty in the perception of smell. He also shares that, people surrounding him complaints of foul odour as they come closer to him, which developed insecurity in him.

Basic information of the patient

Age: 40 years

Gender: male

Religion: Hindu

Occupation: labour

Socioeconomic status: lower class

Past History: No H/O any chronic illness, Surgical intervention and any addiction.

Treatment History

The patient had undergone various treatments for allergies when the complaints began, but experienced little relief. Consequently, he discontinued the medications twelve years ago after that he did not take any treatments.

Personal History

- *Sharira prakriti* - Vata-Pittaja
- *Kostha*(on the basis of bowel habit) - *Madhyam*
- *Bala*(physical strength) - *Madhyam*
- *Satva*(physiological strength) - *Madhyam*
- *Mutra pravritti* (micturition)- *Samanya* (normal)
- *Mala pravritti* (bowel habit)-*Samanya*(normal)
- *Sparsh*(sensory function)- *Samanya* (normal)
- *Agni bala* (appetite)- *Samanya*(normal)
- BP- 124/84 mm of Hg
- Pulse rate- 84/ minute
- Respiratory rate- 16/ minute
- Weight – 59 kg
- Height - 5'8
- Ashtavidh pariksha is as shown in the table 1.

LOCAL EXAMINATION

- **Nasal cavity:** detailed **nasal examination** shows-
- Nasal cavity is full with greenish or grayish black dry crusts, as shown in the figure 1.
- Saddle deformity of nose, as shown in the figure 2.

Dryness of nose

- Nasopharyngeal opening-Normal
- Pale nasal mucosa
- Roomy nasal cavities
- Nasal turbinates are reduced to ridges.
- Nasal endoscopic examination: findings of before Treatment is as shown in table 2 and which is further elaborated in figure 3.

➤ THROAT: NAD

- **EAR:** Bilateral intact and normal Tympanic membrane, no abnormality detected.

Timeline:- Timeline of the study is as shown in the table number 3.

Result: Improvement in the subjective and objective parameters which are as shown in the table no: 5 and table no: 6, along with graphical presentation in Graph 1.

DISCUSSION

As described earlier atrophic rhinitis can affects the daily life by interfering with concentration and sleep. Also, crusting formation and ozaena recurrence can hamper patients daily routine life.

1. Selection of treatment

Vata Kapha Pradhana Dosh are responsible for the occurrence of *Apeenasa Vyadhi*.^{[4][5]} *Agni Mandhya* and *Rasa- Rakta Dhatudushti* can be understand with the atrophic condition. On the basis of these basic *Siddhanta* 1) *Agni Deepana- Amapachana* 2) *Vatanulomana* 3) *Vata- Kaphahara* treatment has been selected here for oral intake. On other hand atrophy and hypo secretory action of the nasal mucosa can be taken as *Dustha Vata-kapha Doshas* function. Hence, *Jalneti*, *Nasya*, *Nasapichu* and *Dhoompanahas* been selected for the local treatment.

2. Probable mode of action of therapies

1) *Jalneti*

Neti is a technique to cleanse the nasal passages. It is a cleansing process related to the upper part of the respiratory system. It is usually practiced with a *Neti* pot filled with lukewarm saline water. The exact amount of salt is not mentioned in any traditional texts. Practically it is about 2.5 g for 500 L of water. Based on clinical studies use of proper salt concentration (2–3.5%) has been recommended in nasal irrigation.^[6]

Neti removes foreign bodies like allergens, dust and enhances the drainage of sinuses by preventing stasis of mucus. It also increases blood circulation and functional efficiency of the nasal mucosa.^[7] Hence *Neti* with *Saindhav Lavana* is selected for the treatment of the atrophic rhinitis due to it's properties of remove vitiated *doshas*, increase blood circulation in the nose.

2) *Panchvalkal kwatha*

It has properties like *Pitta shamaka*, *Shothahara*, *Raktapittahara Karma*. With all these properties it can reduce atrophic changes of the nasal mucosa. It also has antioxidant property which can help in mucosal repair. *Panchavalkala Kwatha* have *Kashaya Rasa*(astringent) dominant and useful in the management of atrophic changes by cleaning the slough and debris, eliminates the impurities wound which results in formation of healthy granulation tissue and its enhanced healing of nasal mucosa. All these properties of selected drug will reduce inflammation, increase secretion of mucus and give relief in the complaints of nasal bleeding and ozaena.^[8]

3). *Aampachan Vati*

It was selected for *Agnideepana*, *Amapachana* and *Appetizer*. *Ampachan vati* which contains *katu* drugs like *chitrak*, *pipalimula*, *Ajvin*, *shudhjavakhar*, *sunth*, *chavya*, *saijikhhar*, *shudhnavsagar*, *kalimirch*, *pipali*, *saudra namak*, *hing* and *saindhav* in which *bhavna* was given by *nimbu swarasa* which is best drug for *deepana* and *pachana*. In atrophic rhinitis cells get atrophied due to unavailability of nutrients. In Ayurveda *Mandagni* is considered as root cause of all the diseases. *Mandagni* cannot form enough *rasa dhatu* which provides nutrition for further *dhatu*s and person gets easily diseased. Hence *Aampachan vati* helps to restore healthy digestion, assimilation and metabolism of essential food elements.^[9]

4) *Kaishor Guggulu*

Guggulu is one extraordinary drug that possesses *Anabhishtandhi*, *Snigdha*, and *Sroto Shuhdhikaraka* actions. *Kaishore guggulu* is mainly used as antiallergic, antibacterial and blood purifying properties. It acts as aging skin health promoter, natural blood cleanser. *Raktapitta Shaman* properties of *kaishor guggulu* help in the epithelial growth, maintain nutrients flow by *Sroto Shuhdhikaraka* actions.^[10]

5) Shadbindu tail nasya

Nasya karma has been selected here for Shodhanakarma of deep seated doshas, which will regulate physiological nasal secretions and eliminate vitiated doshas from cellular level. Shadbindu tail has properties like Katu, Tikta rasa, Ushna virya, Ruksha, Tikshna laghu guna & Doshaghna is Vata kapha hara, which can act as Strotoshodhana, Shothahara, Balya, Bruhana etc.^[11]

6) Nasaarsha tail nasapichu

Kshara is an excellent Anusastra. Because it has Lekhana, Tridoshaghna, Teekshna and Ushna properties. It can reduce the vitiated dosha and open nasal obstruction. Nasaarsha tail is the snehakalpana made by the kshar so this increase secretion and decrease crusts formation by its alkali nature. Nasapichu increase drugs retention time and absorption of drug. With pressure mechanism inflammation and mucosal hypertrophy will be reduced, and can dilate the constricted nasal passage.

6) Haridra khanda

Haridra Khanda is extensively used by Ayurvedic physician for upper respiratory tract infection. Immunomodulation is necessary in atrophic rhinitis so haridrakhanda best of medicine in atrophic rhinitis.

Haridra Khanda has antiallergic, Raktashodhak, Rasayana, Jeevaniya, Brihaniya, Balya, Ojavardhaka

and Dhatuposhaka properties which indirectly increase the immunity.^[12] Haridra khanda contain turmeric that has anti allergic, anti-inflammatory, immunomodulator and Raktashodhana effect other ingredient like Trivit, Haritaki, Daruharidra, Nagarmotha, Ajamoda, Chitrakmool Vata Kapha Pitta Samaka.

7) Rasayan churna

Rasayan churna is formed the combination of three herbs Amalaki (*Embllica officinalis*), Guduchi (*Tinospora cordifolia*), and Gokshura (*Tribulus terrestris*).^[13] Rasayanchurna is immunomodulator, antioxidant, rejuvenating in properties.

8) Prayogika Dhoompana

The dhumapana, when ignited releases the volatile substances in the nostrils, which are absorbed resulting in vasodilatation and stimulation of surrounding nerves of nasopharynx and the olfactory nerve. This stimulates the endocrine system and nervous system also. Same way when these volatile substances are inhaled and reach lungs, it leads to a soothing effect and eases the difficulty of breathing because of their bronchodilator effect.^[14] This is useful in anosmia, nasal obstruction, breathing difficulty.

Table 1: Ashtavidh Pariksha.

1.	Nadi	Vatapradhanyakaphaj	5.	Shabd	Samnya
2.	Mala	Samanya	6.	Sparsh	Alpa Ushna
3.	Mutra	Samanya	7.	Druk	Samnya
4.	Jihva	Samnya	8.	Akriti	Madhyam

Table 2: Nasal endoscopic examination: Before Treatment.

S.No.	Finding	Right Nostril	Left Nostril
1.	Nasal cavity	Roomy	Roomy
2.	Nasal mucosa	Pale	Pale
3.	Crusting	Severe	Severe
4.	Choana	Not Clear	Not Clear
5.	Bleeding	Mild spotting present	Mild spotting present
6.	DNS	Absent	Absent
7.	Inferior turbinate	Atrophied	Atrophied
8.	Middle turbinate	Absent	Absent
9.	Sphenoid ostium	Not seen	Not seen
10.	Ethmoidal ostium	Not seen	Not seen

Table 3: Timeline.

Date	Drug	Dose	Route of administration	Anupana	Dura-tion
13/05/24	1. Jal-Neti with Saindhawa lawana	Q.S. (Morning) 3 sitting daily (10 min. in each nostril)	Nasal	-	7 Days
	2. Nasapraksalan with panchvalkal kwath	Q.S. Nasal instillation after Nasal irrigation	Nasal	-	

	3. <i>Rasayan Churna</i>	5gm BD/AF	oral	Honey and <i>Ghee</i> (unequal quantity)	
	4. <i>Kaisor guggulu</i>	2 tab BD/AF	oral	Luke warm water	
	5. <i>Panchvalkal Kwatha</i>	BD/AF	<i>Gandusha</i>	-	
20/05/24	Crust removed by the Hartmann crocodile forceps. No complications found during procedure.				8 th Day
21/05/24	1. <i>Jal-Neti</i> with <i>Saindhawa lawana</i>	Q.S. (Morning) 3 sitting daily (10 min. in each nostril)	Nasal	-	7 Days
	2. <i>Nasapraksalan</i> with <i>panchvalkal kwath</i>	Q.S.Nasal instillation after Nasal irrigation	Nasal	-	
	3. <i>Rasayan Churna</i>	5gm BD/AF	oral	honey and ghee in unequal quantity	
	4. <i>Kaisor guggulu</i>	2 tab BD/AF	oral	luke warm water	
	5. <i>Aampachan vati</i>	2 tab BD/BF	oral	luke warm water	
	6. <i>Shadbindu Tail</i>	8-8 drops (Morning) 5 sitting with 3 days interval	Nasal (<i>Marsha Nasyaarth</i>)	-	
	7. <i>Nasaarsh tail nasapichu</i>	Q.S. (Morning) 5 sitting 3 days interval (15 min. in each nostril)	Nasal (<i>Nasapichuarthe</i>)	-	
	8. <i>Prayogika Dhoompana</i>	3-3 Puff from both nostril for 3 times	Nasal (<i>Dhoompana</i>)	-	
	9. <i>Haridrakhand granules</i>	5gm BD/AF	oral	lukewarm milk	
29/05/24	Crust removed by the Hartmann crocodile forceps. No complications found during procedure.				15 th Day
30/05/24	Repeat 3,4,5,6,7,8,9				45 days

Table 4: *Pathya-Apathya*.

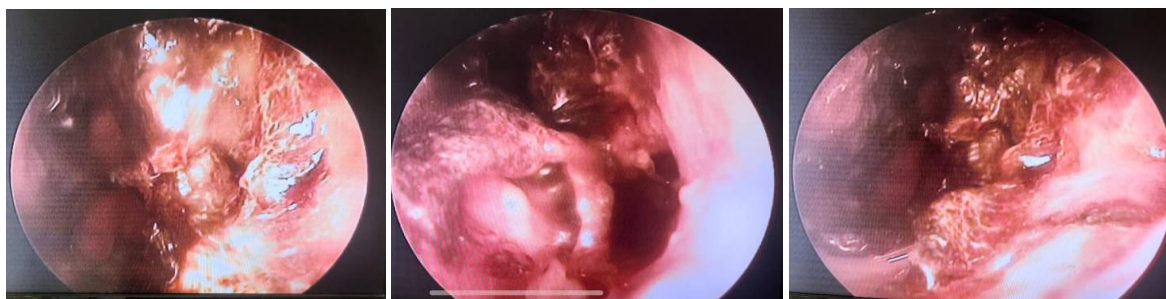
<i>Pathya</i>		<i>Apathya</i>	
<i>Ahara</i>	<i>Vihara</i>	<i>Ahara</i>	<i>Vihara</i>
<ul style="list-style-type: none"> Freshly prepared food Drink Luke warm water Spices (ginger, black pepper, turmeric) 	<ul style="list-style-type: none"> To wear Mask Steam inhalation Local application of ghee in B/L nostrils Gentle nasal care (<i>Jalneti</i>) Rest and relaxation 	<ul style="list-style-type: none"> Cold items Fermented food Colour and chemical containing food Excessively spicy foods Alcohol and smoking 	<ul style="list-style-type: none"> Exposure to cold wind, dust, fumes and other allergens

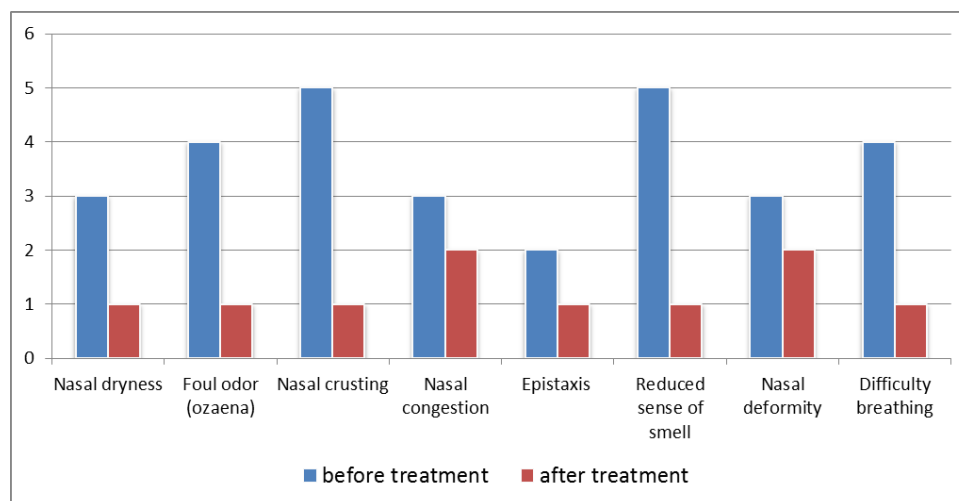
Table 5: Comparison Before Treatment and After Treatment.

S.No.	Finding	Before Treatment	After Treatment
1.	Nasal dryness	+++	+
2.	Foul odor (ozaena)	++++	+
3.	Nasal crusting	+++++	+
4.	Nasal congestion	+++	++
5.	Epistaxis (nosebleeds)	++	+
6.	Reduced sense of smell	+++++	+
7.	Difficulty breathing	++++	+

Table 6: Nasal endoscopic examination: After Treatment.

S.No.	Finding	Right Nostril	Left Nostril
1.	Nasal cavity	Roomy	Roomy
2.	Nasal mucosa	Pale	Pale
3.	Crusting	Mild	Mild
4.	Choana	Clear	Clear
5.	Bleeding	Absent	Absent
6.	DNS	Absent	Absent
7.	Inferior turbinate	Atrophied	Atrophied
8.	Middle turbinate	Absent	Absent
9.	Sphenoid ostium	Open	Open
10.	Ethmoidal ostium	Clear	Clear

**Figure 1: Saddle nose deformity.****Figure 2: Crust removal.****Figure 3. Before treatment ; nasal endoscopy.****Figure 4: After treatment; nasal endoscopy.**



Graph 1: Before and after treatment.

CONCLUSION

Symptomatic treatments for atrophic rhinitis is available in contemporary research, however the disease often returns despite treatment. Ayurveda has very potential treatment modalities in such conditions as per its different *Siddhant* related to *Dosha*, *Dhatu*, *Agni* etc. On the basis of this case study results, the Ayurvedic treatment protocol is very effective in the Atrophic rhinitis condition with less recurrence rate and can provide better regular life to the patients. On the basis of the result obtained in present case study, An Ayurvedic treatment protocol can be very effective in the management of the atrophic rhinitis.

Conflict of Interest: No Conflict of Interest is declared by author.

REFERENCES

1. Dhingra PL, Diseases of ear nose and throat, elsvier publication, 2007, 4th edition.
2. Bunnag C, Jareoncharsri P, Tansuriyawong P, Bhothisuwan W, Chantarakul N. Characteristics of atrophic rhinitis in Thai patients at the Siriraj Hospital. *Rhinology*, 1999; 37(3): 125–130.
3. Dutt SN, Kameswaran M. The aetiology and management of atrophic rhinitis. *Journal of Laryngology and Otology*, 2005; 119(11): 843–852. doi: 10.1258/002221505774783377
4. Samhita: with ayurveda tatva sandipika, hindi commentary by Kaviraj ambikadutta shastri, part 2published by chaukhambha Sanskrit samsthan, varanaasi, edition 17th 2003.susrutha Samhita Uttara tantra 22nd chapter 3rd-5th sloka, 648.
5. Agnivesha -charakasamhita with ayurveda dipika commentary of chakrapanidatta. Chaukhambha surabharathi prakashana, Varanasi, reprint 2000, Charaka Samhita chikitsa sthana 26th chapter, 605.
6. Muktibodhananda S. 4th ed. Yoga Publications Trust; Bihar: 2014. Shatkarma and pranayama. Hatha yoga pradipika, 206.
7. Achilles N., Mösges R. Nasal saline irrigations for the symptoms of acute and chronic rhinosinusitis. *Curr Allergy Asthma Rep.*, 2013; 13: 229–235.
8. Dr. Suraj Rathod, Dr. Kiran Khandare, Dr. Pooja Shrivastava. Efficacy of Panchavalkal Kwatha Dhawana followed by Panchavalkal Ghruta application in case of Dushta Vrana. *J Ayurveda Integr Med Sci.*, 2019; 4: 345-349.
9. <https://www.wjpmr.com/download/article/110062023/1688452205.pdf>
10. https://www.researchgate.net/publication/285511210_An_ayurvedic_polyherbal_formulation_Kaishore_Guggulu
11. Akhilanath Parida, Satyasmita Jena, Varun Sawant. Clinical Study to Compare the Efficacy of Nasya Karma with Shadbindu Taila and Anu Taila in MigraineVis-O-Vis Ardhavabhedaka. *AYUSHDHARA*, 2019; 6(6): 2415-2422.
12. Charwardol seema and Jain sapanclinical evaluation of haridra khanda and anu taila nasya in the management of allergic rhinitis, international journal of ayurveda and alternative medicine, 2013; 1(1).
13. Vagbhata, Astanga Hridaya, Uttara Sthana. Rasayana Adhyaya 39/160. Hindi Commentary by Kashinath Shastriand. In: Tripathi I, Tripathi S, editors. 1st ed. Varanasi: Krishnadas Academy, 1994; 637.
14. <https://www.healingearth.co.in/Treatments/Dhumapana/41>