

**A CLINICAL STUDY ON ATROPHIC RHINITIS (NASASHOSHA) BY THE
INTERVENTION OF BALYAGHRITA****Dr. Minakshi Dinkarrao Mendhe***

Associate Professor in the Dept. of Shalakyatantra At Vijayashree Ayurvedic Medical College and Hospital, Jabalpur MP.

***Corresponding Author: Dr. Minakshi Dinkarrao Mendhe**

Associate Professor in the Dept. of Shalakyatantra At Vijayashree Ayurvedic Medical College and Hospital, Jabalpur MP.

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INTRODUCTION

Pratishyaya (causative factor of all the remaining nasarogas) is one of the most common ailments we come across in our daily practice. It affects the people right from infancy to old age. Due to its prime importance Acharya Sushruta has devoted a separate chapter on Pratishyaya in Uttarsthana. Though it has been mentioned that Pratishyaya is curable in its initial phases, but if it takes a chronic course it may lead to jeernavastha causing various complications and making the treatment more difficult. Hence if the pratishyaya samprapti lasts for a long duration or it has repeated episodes, the nasal mucosa will undergo chronic inflammatory changes and hypertrophy. The chronic inflammatory changes and the hypertrophy remain even after the main disease is treated.

Atrophic Rhinitis is a chronic nasal disease characterised by progressive atrophy of nasal mucosa and underline bone of the turbinates. The Presence of viscid secretions which rapidly dries and forms crust. These crusts are when get foul odour it is called as ozona. The Atrophy of the nasal mucus membrane may result from variety of causes. Changes may be slight or severe. When they are slight, they are called as sicca. There is an abnormal patency of the nasal passage in the atrophic rhinitis. Atrophic rhinitis is a major problem in our society. As it is widely spread among those people who are malnourished and living in poverty. Poverty is a major problem in our country. And around 40% people are poorly nourished. So, there are many patients of atrophic rhinitis. They are coming across in our day to day practice.

NEED OF STUDY

There are many patients of Atrophic Rhinitis in the society.

1. There is no perfect treatment of Atrophic Rhinitis in allopathic medicine.
2. There should be regeneration of nasal mucosa with the help of drug.
3. There should note further destruction of nasal cavity with any treatment. Because it can cause more roominess.
4. Crusting should be easily delivered from its space to avoid bleeding from the nose.

Considering these limitations, such drugs should be found out which are.

1. Easily available.

2. Easy administration.
3. Without any side effect.
4. Soothing of the nasal mucosa should be done by the drug.
5. Regeneration power of the nasal mucosa should be present.
6. Simultaneous lubricant action of the drug should be present.
7. It should be cost effective

Disease review

Atrophic Rhinitis (Nasa Soshha).

Definition - Chronic inflammation of nose characterised by atrophy of nasal mucosa and turbinate bone.

Clinical presentations

- Roomy nasal cavity
- Foul smelling crusts

Clinical features

- Commonly in females
- Starts at puberty
- Foul smelling
- Merciful anosmia Examination
- Nasal cavity, Septum, turbinates covered by crusts.
- Cavity appears roomy after removal of crusts.
- Nasal mucosa pale.
- False obstruction.
- May show saddle deformity.

Prognosis - persists for years, but tendency to recover.

Treatment

Medical or surgical

1. Medical - Complete cure not yet possible.

Aim - maintain nasal hygiene by removal of crusts and nasal irrigation Irrigation by ns with soda bocarb, nacl and water.

- Painting of nose 25% glucose in glycerine ... paint nose after crusts removal
 - Local antibiotic. - Oestradiol spray increase nasal mucosa vascularity.
 - Streptomycin 1g/day for 10 days.
2. Surgical –
- Young's operation.
 - Modified young's operation.
 - Narrowing nasal cavity. by submucosal injection of Teflon paste or insertion of fat, cartilage

Ayurvedic Chikitsa

When we are going to do chikitsa of Nasa Shosha we will have to consider following points.

- Samprapti Bhanga- Shaman of Prakupita Vata by ruksh guna i.e. to do Kapha vrudhi, according to "Samanya Visheshha Sidhanta" opposite to ruksha guna we are going to use Snigdha Guna elements. These drugs should have properties of vata-shamana.
- We are going to use "medicated Ghruta" for the treatment. This grutha is medicated with the help of.
 1. Shatavari (Asparagus Racemosus)
 2. Ashwagandha (Withania Somnifera),
 3. Yashtimadhu,
 4. Manjishtha. Etc

Gruta Importance

We are going to use this Gritha as Nasya which will be locally application of drug in the nose.

What is expected: The treatment for Atrophic Rhinitis should be on following basis.

1. There should be regeneration of nasal mucosa with the help of drug
2. There should not be further destruction of nasal cavity with any operative treatment because. If we do any operative it gives less results.
3. Crusting should be easily delivered from its space to avoid bleeding from nose. Considering these limitations our treatment should be local lubricating and consisting drugs which are having power of regeneration of Nasal mucosa

MATERIAL AND METHODS

1. Patients

1) Study includes 50 patients of Atrophic Rhinitis Nasa Shosh.

2) A separate case paper was designed for evaluation of included patient.

2. Inclusion Criteria:

1. Patients having Atrophic Rhinitis (Nasa Shosha).

2. Selection was irrespective of sex, religion & socio economical class.

3. Patients above 15 years & below 60 years of age were selected.

3. Exclusion Criteria:

1. Patients below 15 years & above 60 years of age were excluded.

2. Recently nose operated patients.

3. In Pregnant women.

4. Mentally retarded patient.

5. Patients of leprosy, ciphilis, and pulmonary Tuberculosis.

Materials**Drug**

1) Trial Group: Balya Ghruta Bruhan Nasya.

Each 10 ml Contents.

- Bala 500mg
- Ashvagandha 500mg
- Shatavari 500mg
- Yashthimadhu 500mg
- Mangishtha 500mg
- Go Ghrut 10ml.

30 ml stirrelized bottles were filled with balya ghruta and they were supplied to the patient after giving full instructions of nasya the patient was trained to do nasya karma and asked to keep the bottles intact in one container to avoid contamination of bacteria or fungus. The patient was asked to spit out the drug which is coming in throat and warm water gargling was advised for better results.

Dose & time of administration of drugs

1) 4 drops of ghruta – at morning in each nostril

2) 4 drops of ghruta – at evening in each nostril

Duration – 60 Days.

Follow up – Patient was examined on 0th day and Follow-up was done on 15th, 45th, 60th, days & observation Was recorded in tabular form.

Observations

a) All patients were advised standard proper hygienic care of nose.

b) Observations were noted in tabular form according to the severity of signs & symptoms.

Methods of clinical diagnosis of Atrophic Rhinitis

Patients of Atrophic Rhinitis were clinically examined first in OPD on basis of signs and symptoms like dryness, crusting or nasal irritation, nasal bleeding, blockage and obstruction. On examination with anterior rhino- scopy the nasal mucosa found pale and atrophic. It is covered with greyish and greenish foul-smelling discharge. If turbinates are atrophic such patients are posted for nasal endoscopy and diagnosis was confirmed and these cases allotted for study.

DISCUSSION

(I) Discussion on the Literary review Selection of the disease

Atrophic Rhinitis is one of the most common nasal conditions found in all over India because there are more patients of Atrophic Rhinitis in the society. Upper respiratory tract infection and its complications are the major cause of hospital visits in the last few decades and the prevalence rate of Atrophic Rhinitis is increasing day by day. India, being a developing country, the incidence of chronic inflammatory nasal conditions is higher as compared to the other countries in the world. In India, the most common factor of Atrophic Rhinitis is pollens of the grasses, weeds and trees. About 20%-30% of the population of India suffer from allergic rhinitis. Furthermore, there is a higher prevalence of 57% among the middle class population as they are exposed to stress and environmental pollution more than others.

Justification for single route treatment

1. In Nasa, shosha, both systemic and local treatment is described in Ayurvedic Samhitas. But according to my clinical practice, it is very easy to cure the disease with the help of local management.
2. The drug which we have used (Balya ghruta Nasya) is having action on Atrophied mucosa of the nose as Atrophic Rhinitis is Atrophied nasal mucosa. The oral treatment may be useful, but it was my perception that local treatment on mucosa acts faster than the systemic treatment.
3. If both the treatments were to be used, it was very difficult to distinguish which route of treatment more helpful in the treatment of Nasa Shosha (Atrophic Rhinitis). So, I have used Sthanik Chikitsa. (Local treatment) in Atrophic Rhinitis with single route treatment.

Discussion on the clinical findings

As per the subjective and objective findings noted during the study and the flow ups, following points can be noted.

- **Rhinosinusitis disability index (RSDI)** - RSDI is a very useful parameter to assess the effect of the trial drug on the quality of life of the patient. Chronic Rhinitis, Inferior turbinate hypertrophy, deviated nasal septum (mild deviation and septal thickening), Nasal polyposis and polypoid nasal mucosa are the common obstructive conditions of the nose and para nasal sinuses which cause a chronic nasal obstruction. This nasal obstruction badly affects the quality of life of the affected individual. As the nasal obstruction reduces the quality of life of the patient improves. RSDI shows how the quality of life of the patient is hampered as per the physical, functional and emotional parameters. There is a significant improvement in the quality of life of the patient after the clinical trial is started and remained constant even after the drug application is discontinued.
- **Nasal obstruction** – VAS scale (subjective evaluation) The effect of the drug application

studied to evaluate the degree of nasal obstruction which is measured subjectively on the VAS scale. This also shows a significant effect as the treatment proceeds and the nasal obstruction is totally relieved at the end of the study. The subjective evaluation reads the perception of the patient as to how much the nasal obstruction was relieved. It was observed that the actual effect was seen after the second application of the drug on the nasal mucosa and maximum results were seen after the four applications of the drug.

- **Nasal obstruction** – Spatula test (objective evaluation) An objective evaluation of the nasal obstruction was done by the spatula test also. This also showed similar results as seen by the VAS scale in the previous findings. This ruled out the biased findings given by the patients in the subjective evaluation. Better results were seen in the patients suffering from Inferior turbinate hypertrophy and mild deviated nasal septum as compared to chronic rhinitis and nasal polyposis. In my study 56% of patients got full relief from nasal obstruction.
- **Irritation and crusting**- This is very common problem in Atrophic Rhinitis. The irritation is formed due to itching in the nose when thick nasal discharge gets crusting. Sometimes this irritation is so disturbing that patient touches his/her nose on and off. Sometimes crusting gives obstruction of respiration. Many times, patient gets disturbed sleep. Patients feel discomfort when crusting is more, and he tries to remove the crust with fingers. In my study all the patients of atrophic rhinitis were having these symptoms in majority. In my study 78% patients got relief from irritation and crusting.
- **Foul smell**- When this crust gets secondary infection, there is foul smell from the nose. Greenish crust with secondary infection of *Cocci bacillus* of *perez*, *klebsiella* *fotedis* *ozanae* Can cause secondary infection and gives foul smell to expiration. In my study 56% patients got relief from Foul smell.
- **Bleeding**- when crust dislodges from its site, there is damage to mucosal flora and it can cause mild bleeding. This bleeding is along with the crusting, and it stops immediately. Sometimes at the time of sneezing when there is expelation of mucus, bleeding is along with it, when there is re generation of mucosa with the help of balya ghruta nasya, this bleeding stops. In my study 58% patients got relief from Bleeding.
- **Blockage** - Blockage is related to oedimatus changes of nasal mucosa. Nasal obstruction is related to respiration and nasal blockage is related to nasal congestion due to nasal mucosal oedema. All these symptoms get relived with the help of balya ghruta nasya application. In present study 58% patients got relief from Blockage.
- **ANOSMIA**- At the starting of the treatment, the patients were having much more anosmia due to Atrophic changes in olfactory mucosa. The patients

were telling that they were not having sense of smell but after receiving the treatment of Balya Ghruta Nasya it was observed that the patients were having improvement in sense of smell. That means this treatment was also helpful to reverse anosmia to hyposmia in many cases.

PROBABLE MODE OF ACTION OF THE DRUG

1. Balya ghruta nsaya acts on hypotrophied nasal mucosa in two ways: It regenerates the nasal mucosa, there is new tissue formation with Bruhan Karma foul smell disapperes with Rakta shodhan guna dharma of manjishtha and it gives normal texture to nasal mucosal floora.
2. There is smooth dislodgement of the irritable crust which are collected in the nose in atrophic rhinitis are delivered without any obstruction, so patients feel very comfortable and there is no obstructions. This happens due to guna of balya ghruta. There is no bleeding as crust becomes soft and thus patients gets relief from all the signs and symptoms of atrophic rhinitis.

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