



Full Length Research Article

COMPARATIVE CLINICAL STUDY OF EFFICACY OF SHIGRUADI TAILA AND SHADBINDU GHRITA NASYA IN THE MANAGEMENT OF APINAS (ATROPHIC RHINITIS)

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ABSTRACT

With the aim to evaluate the efficacy of *shigruaditaila* and *shadbindughrita Nasya* in the management of *Apinas* (Atrophic Rhinitis), a Single blind randomized clinical study was done. For the clinical study of *Apinas* 60 subjects was selected and studied. Subject's fulfilling the criteria of diagnosis was studied irrespective of their religion, caste, sex and socio-economic status from shalakyatantra department of the institute after thorough scrutiny and proper consent in his/her language. The Subject's having age between 20-60 yrs was selected for the clinical study. Detail history of the patient were elicited, pathological investigation including Hb, TLC, DLC, RBS and required radiological investigation were done in a diagnostic Centre. The examination of the Nose is also carried out with the help of modern viewing techniques like Anterior Rhinoscopy, Posterior Rhinoscopy and Spatula Test etc. After observation and analytical study with the help of Wilcoxon sign rank test and Man-whitney test it was concluded that in *Apinas* treatment with *shigruadi Taila Nasya* shows more effective Result in relieving sign and symptoms of *Apinas* than *shadbindughrita Nasya*.

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INTRODUCTION

The human life is full of competition due to which his life style has been completely changed, we has to face excessive exposure to pollution, cold Along with these factor consumption of chilled foods, cold drinks, ice cream etc. produces phlegm diseases which gives rise to respiratory tract diseases. As respiration is soul of physiological activity, *Pranvahastrotas* has its special importance. *Dushti* of *Pranvaha Strotas* may disturb the physiological activity of body. *Nasais* commencement of *pranvahastrotas*. *Nasa* protects *pranvahastrotas* by adhering the harmful factors like pollen, dust to the mucous membrane, also humidifies air entering the nose and regulate the temperature of air entering the nose. Hence *Pranvaha Strotas* will be affected if physiological activity of protection of nose is not performed well. The pollution and the above said factors affect the nose and its mucosal membrane leading to various nasal diseases. *Apinas* is also a disease among them which is described by all Ayurvedacharya<sup>1</sup>. The symptoms of *Apinasre* sembles with the symptoms of Atrophic Rhinitis.

In modern medical science, there is medical and surgical treatment for Atrophic rhinitis. Complete cure of these diseases is not yet possible by medical treatment while in surgical treatment both nostrils are closed completely or partially for a period over 6 months or more which is very inconvenient to the patient. Hence, this surgical treatment is done very rarely. So looking towards the importance of above points, there is a great need to look forward for the Ayurvedic management of *Apinas*. There are number of references in Ayurvedic texts suggest various regimes of treatment for *Apinas*. All these management have one common concept and this is *nasya karma*. Ayurvedacharya have already praised the role of *nasya Karma* in *urdhavjatrugatvikar*.

Aims and Objectives

1. To study efficacy of *shigruaditaila Nasya in Apinas* (Atrophic Rhinitis)
2. To study efficacy of *shadbindughrita Nasya in Apinas* (Atrophic Rhinitis)
3. Comparing the efficacy of *shigruaditaila and shadbindughrita Nasya* in the management of *Apinas* (Atrophic Rhinitis)

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Taking above said point in consideration, we have plan to study and compare *shigruaditaila and shadbindughrita Nasya* in the management of *Apinas* (Atrophic Rhinitis) which includes patients' history, sign, symptoms, diagnosis, clinical examination and management by above said trial drugs.

### Hypothesis

**H<sub>0</sub>**-As the Apinas is a degenerative or atrophic disease, Nasya do not have any effect on Apinas.

## MATERIALS AND METHODS

Patients having signs and symptoms of Apinas was randomly enrolled from the OPD of department of Shalaky-Tantra of the institute after thorough scrutiny, proper consent and permission from ethical committee.

### Shigruadi Taila

Sr. No.	Name of Dravya	Family	Latin Name	Proportion
1.	Shigru	<i>Moringaceae</i>	<i>Moringaoleifera</i>	1
2.	Haritaki	<i>Combreteceae</i>	<i>Terminaliachebula</i>	1
3.	Nikumbha	<i>Euphorbiaceae</i>	<i>Baliospermummontanum</i>	1
4.	Sunthi	<i>Zingiberaceae</i>	<i>Zingiberofficinale</i>	1
5.	Marich	<i>Piperaceae</i>	<i>Piper nigrum</i>	1
6.	Pippali	<i>Piperaceae</i>	<i>Piper longum</i>	1
7.	Ela	<i>Zingiberaceae</i>	<i>Elettariacardamomum</i>	1
8.	Tulasi	<i>Labiata</i>	<i>Ocimum sanctum</i>	1
9.	Saindhav	-	-	1
10.	TilTaila	<i>Pedaliaceae</i>	<i>Sesamumindicum</i>	4

### Shadbindu Ghrita

Sr. No.	Name of Dravya	Family	Latin Name	Proportion
1.	Bhrunga raja	<i>Compositae</i>	<i>Eclipta alba</i>	1
2.	Yashtimadhu	<i>Leguminasae</i>	<i>Glycyrrhizaglabra</i>	1
3.	Sunthi	<i>zingiberaceae</i>	<i>ZinziberOfficinale</i>	1
4.	Kushta	<i>Compositae</i>	<i>Saussurealappa</i>	1
5.	Lavan	-	-	1
6.	Gow-ghrita	-	-	4

### Drug Analysis-Shigruadi Taila

Sr. No.	Test	Result
1.	Description	-
2.	Brown colour oil pH(2gm in 100ml water) Method :by pH Meter	4.86
3.	Refractive Index at 40 <sup>0</sup> c Method: as per IS-548	1.465
4.	Viscosity at 40 <sup>0</sup> c Method : by Ostwald viscometer	cps 77.44
5.	Iodine value Method : as per IS-548	gl/100gm 116
6.	Acid value Method : as per IS-548	mgkoh/gm 5.53
7.	Saponification value Method : as per IS-548	mgkoh/gm 182

### Shadbindu Ghrita

Sr. No.	Test	Result
1.	Description	-
2.	Brown colour pH(2gm in 100ml water) Method :by pH Meter	4.45
3.	Butyro- Refractometer reading Method of sampling and test for oils and fats(part1)IS- 548	42.5
4.	Viscosity at 40 <sup>0</sup> c Method : by Ostwald viscometer	cps 69.69
5.	Iodine value Method : as per IS-548	gl/100gm 56.19
6.	Acid value Method : as per IS-548	mgkoh/gm 0.59
7.	Saponification value Method : as per IS-548	mgkoh/gm 204

### Study Design

Grouping	Group A	Group B
Sample size	30	30
Intervention	<i>shigruaditaila</i> Nasya	<i>shadbindughrita</i> Nasya
Duration	21 days	21 days
Follow up	7 days	7 days
Dosage	6 drops in each nostrils	6 drops in each nostrils
Timing	Once daily in a morning	Once daily in a morning
Interval	3 days after every 7 days	3 days after every 7 days

### Composition of trial drug

#### Grouping: 2 groups

##### Group A

The Subjects of this group was treated with *shigruaditaila* Nasya

##### Group B

The Subjects of this group was treated with *shadbindughrita* Nasya

### Examination of the patient

Nasal examination of the patient includes.

1. Examination of external nose.
2. Examination of Vestibule.
3. Anterior Rhinoscopy
4. Posterior Rhinoscopy
5. Functional examination of nose.

### Criteria of diagnosis

- Foul Smell
- 2. Anosmia
- Dryness of Nose
- Crusting
- Nasal discharge
- Blocking of Nose

Grading (0-Absent, 1-occasional, 2-frequent, 3-continuous)

### Investigation

Pathological- CBC, BSL, HIV  
Radiological-x-ray PNS

### Criteria for assessment

#### 1) Criteria for selection

- a) Diagnosis of Apinas was based on clinical examination which will be supported with Radiological and pathological investigation.
- b) Age group between 20 to 50 years.
- c) Both male and female subjects, having sign and symptoms of Apinas, irrespective of their socio-economic status, educational status, caste and religion.

#### 2) Criteria for rejection

- a) Subjects having previous history of nasal surgery.

The data collected from all the 60 Subjects of both groups was summarized and statistically represented in terms of Vital Statistics, Observations during study, Results of the study and Statistical comparison of both the groups

### RESULTS AND DISCUSSION

In the Group A the Mean Foul Smell of Nose was observe to be 2.133 before treatment that reduced to 0.9333 after treatment (p value <0.05), the Mean Anosmia of Nose was observe to be 1.633 before treatment that reduced to 1.567 after treatment (p value >0.05), the Mean Dryness of Nose was observe to be 2.5 before treatment that reduced to 0.6667 after treatment (p value <0.05), the Mean Crusting of Nose was observe to be 2.467 before treatment that reduced to 0.7000 after treatment (p value <0.05), the Mean Nasal Discharge of Nose was observe to be 1.333 before treatment that reduced to 0.5667 after treatment (p value <0.05), the Mean Blocking of Nose was observe to be 2.133 before treatment that reduced to 0.9000 after treatment (p value <0.05). In the Group B the Mean foul smell of Nose was observe to be 2.233 before treatment that reduced to 1.067 after treatment (p value <0.05), the Mean Anosmia of Nose was observe to be 1.500 before treatment that reduced to 1.400 after treatment (p value >0.05), the Mean Dryness of Nose was observe to be 2.333 before treatment that reduced to 1.367 after treatment (p value <0.05), the Mean Crusting of Nose was observe to be 2.300 before treatment that reduced to 1.067 after treatment (p value <0.05), the Mean Nasal Discharge of Nose was observe to be 1.467 before treatment that reduced to 0.8333 after treatment (p value <0.05), the Mean Blocking of Nose was observe to be 2.033 before treatment that reduced to 1.167 after treatment (p value <0.05).

To examine either the groups differs from each other significantly or not, further data are treated by Mann whitney U score test. For Foul Smell of Nose the mean difference in value in group A was 1.200 while that in Group B was 1.167(p value >0.05). For Anosmia of Nose the mean difference in value in group A was 0.06667 while that in Group B was 0.1000(p value >0.05). For Dryness of Nose the mean difference in value in group A was 1.833 while that in Group B was 0.9667(p value <0.05). For Crusting of Nose the mean difference in value in group A was 1.767 while that in Group B was 1.233(p value <0.05). For Nasal Discharge of Nose the mean difference in value in group A was 0.7667 while that in Group B was 0.6333(p value >0.05). For Blocking of Nose the mean difference in value in group A was 1.233 while that in Group B was 0.8667(p value <0.05).

### Conclusion

In this series, 60 patients of *Apinas* were studied out of which 36.66% patients found in Aged group between 20-30 yrs and

40-50yrs respectively, No any difference in sex ratio is found i.e. both male to female ratio is equal, 73.33% patients belonging to Hindu religion, maximum number of patient are educated up to mid school and high school i.e. 26.66% each. 80% of patients are from lower socio-economic level, 50% patient were suffering from *Apinassince* more than 5 yrs, 71.66% patient were having *kaphavatajprakriti*, 38.33% patient were having *mandagni*, 78.33% patients were taking sheet *gunatmaka Ahar* while 71.66% patient were taking *rukshagunatmak Ahar*, 48.33% patient were taking dominant *katurasatmaka Ahar* and 83.33% patients were taking mixed type of diet. In this study 100% patients of both groups were having *vata dosh dushti* while 75% patient were having *kapha dosh dushti*, 100% patients of both groups were having *Rasa dushyadushti* while *Mansa and Raktadushyadushti* were 80% and 71.66% respectively. 85% patients were living in Unhygienic residential area, 58.33% patients were doing labor work and 35% patients were having history of addictions. After doing inference confidently by Wilcoxon Sign Rank Test, it is found that in group A except for Anosmia difference between before treatment and after treatment are statistically highly significant for foul smell, dryness, crusting, nasal discharge and blocking of nose.

Also in group B treatment with *Shadbindu GhritaNasya* are effective relieving symptoms of *Apinas* except for symptom anosmia. After doing Mann-Whitney U Test to examine difference between effect of treatment in both groups it is found that for dryness, crusting and blocking of nose the inference is highly significant. I.e. for above symptoms Group A shows better result than Group B. But for foul smell, anosmia and nasal discharge the inference are in-significant. The properties of *shigrudaitaila* i.e. acidic nature, excess of hydrogen ions are useful for capillary circulation. Increased  $H^+$  ions concentration dilate the capillary. As *shigrudaitaila* is having excess of  $H^+$  ions concentration it causes dilatation of capillary. Irritation of the skin produces vasodilatation in the locality. In neurology this reflex is known as Axon reflex. As *shigrudaitaila* is being acidic in nature, it acts as irritant to nasal mucosal membrane, which produces vasodilatation. The acidic nature of *shigrudaitaila* also inhibits the photolytic organism and also helps in removing crust. Thus *shigrudaitaila* acts as vasodilator and Germicidal. Which are helpful in minimizing the symptoms of *Apinas*. From the above discussion, it is clear that Subjects having clinical features of *Apinas* are more significantly reduced in Group A than Group B which itself prove that treatment with *Shigrudaitaila Nasyais* better than treatment with *Shadbindu Ghrita Nasya in APINAS*.

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