

COMPARATIVE CLINICAL STUDY OF SHUNTHYAADI SNEHA YOGA NASYA OVER KSHAVATHU ROGA W.S.R. TO ALLERGIC RHINITIS BASED ON SNEHA MEDIAShreeganesh Aithal¹, Laxmi. B. Kurle²¹PG Scholar, T.G.A.M.C & H Ballari, Karnataka, India²Associate Professor, T.G.A.M.C & H Ballari, Karnataka, IndiaCorresponding Author: ganesh.aithal5@gmail.com<https://doi.org/10.46607/iamj0409102021>

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**ABSTRACT**

Shunthyaadi Sneha Yoga which is a *Sneha Kalpana* developed with *Ghrita* and *Taila Paka* method containing ingredients which are *Kshavathu hara* and indicated specifically in *Kshavathu Roga*. In Ayurveda, *Kshavathu* is a symptom of many diseases and at the same time a separate disease entity. The literal meaning of *Kshavathu* is sneezing and is the main symptom of Allergic Rhinitis and both share similar etiological factors. Allergic rhinitis is an atopic disease characterised by symptoms of nasal congestion, clear rhinorrhea, sneezing, postnasal drip, and nasal pruritis. It is an inflammatory disorder of the nasal mucosa induced by allergen exposure triggering IgE-mediated inflammation. Around 20–30 % of the Indian population suffers from allergic rhinitis and that 15 % develop asthma. In the present study, an attempt has been made to compare the efficacy of *Shunthyaadi Taila Nasya* and *Shunthyaadi Ghrita Nasya* designed in two groups comprising fifteen patients each and analysed with parametric and non-parametric tests. Both the groups showed remarkable results in the management of *Kshavathu*.

Keywords: *Kshavathu*, *Shunthyaadi Sneha Yoga*, *Shunthyaadi Taila*, *Shunthyaadi Ghrita*, *Nasya*,

INTRODUCTION

Allergic Rhinitis is a disease pertaining Nose induced by an immunoglobulin E(IgE)-mediated inflammatory reaction after allergic exposure of the membranes lining the nose¹ and is characterized by watery nasal discharge, Nasal congestion and sneezing². In day to day, medical practice Allergic rhinitis is one of the most common diseases that we come across. It adversely affects the quality of life, psychology, lifestyle and impacts work productivity. It is an acute IgE mediated, type-1 hypersensitivity reaction of nasal mucosa in response to an antigenic substance (allergen) associated with episodic attacks of sneezing, watery rhinorrhea and watering of the eyes.⁴ Allergic rhinitis constitutes more than 50% of all allergies in India and its incidence is steadily increasing worldwide. The word meaning of *Kshavathu* is sneezing. Due to our modern lifestyle and increased air pollution invited such diseases and which is also disgusted by *Viruddha Ahara Vihara Sevana*. Regarding allergy, there is no direct reference in Ayurveda but the concept of *Dushi Visha* resulted by *Virudha Ahara Sevana* substantiate the point. Such abnormal changes lead to *Vata-Kapha* and *Pitta-Vata Prakopa*, *Rasa-rakta Dushti* and *Pranavaha Sroto Dushti*. Acharya *Vagbhata* also opined that *Dushi Visha* leads to blood vitiated disorders which can be compared with allergic reactions in the body.⁴ All medical disciplines are

trying to find ways to fight against such challenging tasks due to the high chance of its recurrence. Hence, it creates a need to search for a simple and effective remedy. Among the various treatment modalities, *Nasya* is the chief procedure to drain *doshas* from *Sira*.⁵ *Shunthyaadi Sneha Yoga* by the name *Shunthyaadi Taila* and *Shunthyaadi Ghrita* in the form of *Nasya* has been highlighted as a drug of choice for the management of *Kshavathu*⁶. As *Kshavathu* is the *Pradhana Lakshana* of *Kshavathu Roga*, *Nasya* has been selected for the present study. Hence to assess and compare the efficacy of *Shunthyaadi Taila* and *Shunthyaadi Ghrita* in the form of *Nasya* the present study has been taken.

MATERIALS AND METHOD:

- Patients: The diagnosed patients of *Kshavathu Roga* were selected from OPD and IPD of the Department of Shalakyatantra. Randomly patient has been enrolled in two groups.
- Study design: a comparative study with two equal groups. Group-A was treated with *Shunthyaadi Taila Nasya* and Group-B was treated with *Shunthyaadi Ghrita Nasya*.
- Sample size: thirty patients (15 patients in each Group).
- Posology (Table No.1)
- Selection of drugs

Table 1: Showing the Posology

	GROUP-A	GROUP-B
Name of the Medicine	<i>Shunthyaadi Taila Nasya</i>	<i>Shunthyaadi Ghrita Nasya</i>
Duration	Total duration-7 days	Total duration-7 days
Dose	Eight drops in each nostril	Eight drops in each nostril

Shunthyaadi Taila: 1/6th parts of *Shunthi*, *Kushta*, *Kana*, *Bilwa Majja*, *Draksha* each were made into *Kalka* form, to this 1 part of *Murchita Tila Taila* and

4 parts of *Shunthyaadi Kashaya* was added and boiled till the product attains *Sneha Siddhi Lakshana* (*Mrudu Paka*)^{7,8,9}.

Table 2: Showing the Ingredients of *Shunthyaadi Taila*

Name of the ingredient	Quantity
<i>Shunthi</i>	1/sixth part
<i>Kushta</i>	1/sixth part
<i>Kana</i>	1/sixth part
<i>Bilva</i>	1/sixth part
<i>Draksha</i>	1/sixth part
<i>Murchita Tila Taila</i>	One part
<i>Kashaya of Shunthi, Kushta, Kana, Bilva, Draksha</i>	Four parts

Shunthyaadi Ghrita: 1/6th parts of *Shunthi, Kushta, Kana, Bilva Majja, Draksha* each were made into *Kalka* form, to this 1 parts of *Murchita Ghrita* and 4

parts of *Shunthyaadi Kashaya* was added and boiled till the product attains *Sneha Siddhi Lakshana (Mru-du Paka)*^{7,8,9}.

Table 3: Showing the Ingredients of *Shunthyaadi Ghrita*

Name of the ingredient	Quantity
<i>Shunthi</i>	1/sixth part
<i>Kushta</i>	1/sixth part
<i>Kana</i>	1/sixth part
<i>Bilva</i>	1/sixth part
<i>Draaksha</i>	1/sixth part
<i>Murchita Ghrita</i>	One part
<i>Kashaya of Shunthi, Kushta, Kana, Bilva, Draksha</i>	Four parts

Intervention: *Nasyakarma* was done in the morning time, eight drops of each *Taila* and *Ghrita* in each nostril was administered.

Methodology:

Inclusion Criteria:

- Patients between the age group of 16-60 years are selected.
- Patient with the following diagnostic symptoms of *Kshavathu Roga* they are *Kshavathu, Naasasraava, Naasashosha* and *Naasaanah*
- Chronicity less than 5 years.

Exclusion Criteria:

- Patient age below 16yrs & above 60yrs.
- Patients contraindicated for *Nasyakarma*.
- Lactating & Pregnant women.
- Patients suffering from polyps, DNS requiring surgical intervention.

- Patients suffering from another systemic infectious disease.

Diagnostic Criteria:

The diagnosis was established based on-

1. Clinical features: *Kshavathu, Naasasraava, Naasashosha* and *Naasaanaha*.
2. Nasal smear: shows a large number of Eosinophils.

Laboratory investigations:

Hb%, TC, DC, ESR, AEC and Nasal Smear Test.

Clinical Assessment - Clinical assessment was done before, during & after the treatment. The sign and symptoms were assessed by adopting a suitable scoring method.

Subjective Criteria:

Grading for Parameters:

Table 4: Showing the Grading's for parameters for the assessment of *Kshavathu*

Sl No	Symptoms	Gradings
1.	<i>Kshavathu</i> (Sneezing)	0-No Sneezing
		1- 1-10 Sneezing
		2- 10-15 Sneezing
		3- 15-20 Sneezing
2.	<i>Naasa Sraava</i> (Nasal discharge)	0- No discharge
		1- Occasional Rhinorrhea with a feeling of running nose without visible fluid
		2-Rhinorrhea with the occasional running nose with visible fluid
		3-Rhinorrhea with a running nose that needs moping but is controllable
3	<i>Naasa Shosha</i> (Nasal Dryness)	0- No symptom
		1- Only <i>Shushkata</i> in <i>Nasa</i> without <i>Daha</i>
		2- <i>Shushkata</i> is associated with mild <i>Daha</i>
		3- <i>Shushkata</i> in <i>Nasa</i> associated with Notable <i>Daha</i>
4	<i>Naasa Anaaha</i> (Nasal Obstruction)	0- No obstruction
		1- Inhalation & exhalation with effort with a feeling of mild obstruction
		2- Inhalation & exhalation with effort with a feeling of moderate obstruction
		Inhalation & exhalation to be supplemented with mouth breathing
		3- Complete blockage with total mouth breathing

Objective Criteria:

- Nasal Smear Test

Statistical Analysis: (Table No.5,6 & Graph1)

All the data generated and collected during the study were subjected to statistical analysis. Wilcoxon Signed Rank Test and Paired t-test was applied to evaluate the data within the group. Comparative analysis of the overall effect of the treatments in between the groups was done statistically with Mann-Whitney Rank Sum Test and student t-test (Independent t-test). Conclusions were drawn based on the effect of therapy. Conclusions were drawn based on the results obtained.

Assessment of the effect of therapy:

- On ***Kshavathu*** factor: In this present study, *Kshavathu* was relieved by 89.73% in group A, 100% in group B. The results were Significant with 'p' value <0.05 statistically, stating that there is a significant difference in efficacy between the groups which can be claimed with 100% reduction in the symptom of group-B patients and that may be due to the action of *Ghrita*. But after following up the percentage of improvement reduced in both the groups (66.65% in group-A, 78.57% in group-B) as some of the patients relapsed with 2-3

sneezing coming under grade 1 which is negligible.

- On ***Naasa Sraava*** factor: In this present study, *Naasa Sraava* was relieved by 83.32% in group A, 97.39% in group B. Even though there is no significant change in between the groups statistically with 'p' value >0.05 stating both the groups having equal efficacy. But the percentage of reduction is more in Group B because of the additional effect of *Ghrita*.
- On ***Naasa Shosha*** factor: In this present study the percentage of relief in *Naasa Shosha* observed in group-A was 85.71%, and in group-B was 95.04%. Even though there is no significant change in between the groups statistically with 'p' value >0.05 stating both the groups have equal efficacy. But the percentage of reduction is slightly more in Group B.
- On ***Naasa Anaaha*** factor: In this present study, *Naasa Anaaha* was relieved by 72.47% in group-A and 84.65% in group B. Even though there is no significant change in between the groups statistically with 'p' value >0.05 stating both the groups having equal efficacy. But the percentage of reduction is slightly more in Group B.

➤ **On Nasal Smear Test:** In the present study, the test showed a marked reduction of eosinophil count in both groups with a percentage in group A is 92.92% and, in group B is 96.43% which is a slightly higher reduction in group B. But statistically, it showed no significant difference in between the groups with 'p' value >0.05 stating both the groups having equal efficacy. Both the groups have managed to reduce the eosinophil count in the nasal mucosa tremendously.

DISCUSSION

In this study on *Kshavathu Roga* 30 patients were registered, all thirty patients completed their full course of treatment. Most of the patients were from the age group of 16-35 years. Female patients were more affected with the percentage of 60% when compared to males with 40% prevalence. Maximum no. of patients (43.33%) was of *Vata-Pitta prakruti* and 33.33% were of *Vata-Kapha prakruti*. This disease has no bar for religion and geographical distribution. *Kshavathu* can manifest as a separate disease entity and as a symptom of other diseases. By observing classical references, we can say that *Kshavathu* is *Vata-Kapha* predominated but in *Prakrutavastha*. *Pitta* is the main *Dosha* to deplete the *Vyadhikshamatva*. *Ushna Guna* of *Pitta* increases *Dhatupaka* and simultaneously reduces immunity. So, *Pitta-Vata* also accounts for the manifestation of the disease. *Nasya* is the chief *Shodhana* procedure selected because this is a procedure that performs *Uttamanga Shuddhi* which can expel the vitiated *Dosha* easily. *Shunthyaadi Taila Nasya* was administered in Group A and *Shunthyaadi Ghrita Nasya* was administered in Group B.

Probable Mode of Action: *Shunthi* is the active drug in *SSY* having well established pharmacological action over *Kshavathu Roga* in both classical reference and modern aspects. It is having *Laghu* and *Snigdha Guna*, *Ushna Veerya* and *Madhura Vipaka* does *Vata-Kaphahara*. As per *Ashtanga Hrudaya*, it is both *Bhedana* and *Graahi* which are essential in relieving *Kshavathu Roga* as *Bhedana* helps in combating *Naasa Anaaha*, *Kshavathu* and *Graahi* in *Naasa*

Sraava. 6-gingerol, 6-shogaol a major compound of ginger, suppresses cytokine production for T cell activation and proliferation, thereby not causing B cell and mast cell activation and resulting in prevention or alleviation of allergic rhinitis symptoms by establishing anti-allergic action. *Kushta* having *Katu*, *Tikta Rasa* along with *Laghu Guna*, *Ushna Virya* and *Katu Vipaka* does *Kapha-Vatajit*. It is best *Raktashodhaka*, which is necessary for combating the origin of *Kshavathu*. The degranulation of mast cells is prevented by *Rakta Shodhana* hence there will be the prohibition of releasing histamines, B cells, basophil bound IgE, neutrophil and leukotrienes. These are performed inflammatory mediators and thus there will not be further pathogenesis of the allergic mechanism. *Pippali* with its *Madhura*, *Katu Rasa*, *Snigdha Guna*, *Madhura Vipaka* and *Anushna Sheeta Virya* renders the action *Rasayana*. In *Kshavathu Roga* this action is also important for *Poshana* of *Dhatu*s as there will be continuous *Sarana* of *Dhatu*s thus compromising immunity. Its *Snigdha Guna* and *Madhura Rasa* and *Vipaka* relieve *Naasa Shosha*. *Bilva* is *Sangrahika*, *Deepana Agryam* which helps specifically in *Kaphashoshana* to overcome *Naasa Sraava* condition so assists in blocking devastation of the *Prakruta Dosha* and thus renders *Rasayana* property. *Draksha* is enriched with *Madhuara Rasa* and *Vipaka*, *Sheeta Virya*, *Guru Snigdha Guna* increases the *Rasayana* property. *Sara Guna* removes the *Dushita* and *Sanchita Doshas* from the *Srotas* and assisted in *Samprapti Vighatana* enhancing the *Srotoshodhana* property. *Mridurechana Karma* of the *Draksha* rectifies *Vimargagamana* of *Vata Dosha* and performs *Vatanulomana*. It is anti-allergic and increases the local immunity of nasal mucosa.

Taila is the best *Vatahara* which is the main culprit in *Kshavathu Roga*. It increases immunity as it is *Balya*. It smoothens the *Srotas* with rich *Sneha Guna* resulting in desensitization of sneezing pathology. It is best *Yogavahi* in nature augments the action of the ingredients used.

Sarpi is *Uttama* among all the *Snehas* because *Samskarasyanuvartanat* property means it imbibes other

Gunas of the drug without losing its original qualities. *Ghrita* has been attributed as “*Sahasra Veeryam Vidhibhirghritam Karma Sahasra Krut*” substantiates *Ghritam Yogavahi* in a superior level. It intensifies the drug delivery system inside the body as a vehicle. The lipophilic action of cow's ghee facilitates transportation to a target organ and final delivery inside the cell since the cell membrane also contains lipid. It acts as a carrier of active components to be absorbed across the cell membrane. Being a lipid-soluble drug, the drug when poured through the intra-nasal route achieves a higher concentration in the mucus membrane of the nose and diffuses quickly. The nasal mucosa provides a larger surface area and hence the absorption is faster.

Ghrita is *Smriti-Buddhi Vivardhanam* implies it modulate the cells in the nasal mucosa to alert its *Prajna* and thus prevents the *Prajnaparadha* by the cells. This quality is important in stabilising the hypersensitivity action of the cells in the nasal mucosa to a particular external stimulus. By this *Prajnabodhita* cells increase the transcription of anti-inflammatory genes and of genes encoding proteins that have inhibitory effects on transcription of inflammatory and immune genes. This anti-inflammatory effect results in modifications to gene transcription occurring via mechanisms known as transactivation or transrepression and this occurs via the suppression of multiple genes that encode inflammatory proteins, a process known as transrepression. This is how the enhancement of immunity establishes inside the cells of the nasal mucosa by *Smriti-Buddhi Vivardhana Guna* of *Ghrita*.

NASYAKARMUKATA: Locally *Nasya* may function as *Sravahara*, *Shothahara*, *Srothoshodhana*. The pre-operative procedures like *Snehana*, *Swedana* pacify *Vatadosha*. The main procedure i.e., installation of medicine into the nose acts as *Srothoshodhana* and it is a way of *Vyadhipratyanika chikitsa*. The *Nasya Dravyas* instilled acts by reaching *Sringataka Marma*. *Shringataka Marma* includes *Srotas* where *Ghrana*, *Shrotra* and *Akshi Tarpana Siras* all get united. These *Nasya Dravyas* increases the general blood circulation, after absorption through the mu-

cous membrane. Many nerve endings which are arranged in the peripheral surface of the mucous membrane, olfactory, trigeminal etc. will be stimulated by *Nasyadravyas* and impulses are transmitted to the C.N.S which leads to the suppression of mediators of allergic response suggesting the action of drugs at cortical levels at the local level. The Hypothalamus induced contraction of smooth muscles secretions of many glands in nasal mucosa will be battled by the *Nasyadravyas* by reaching higher centres of the brain. This also results in better blood circulation and nourishment of the sense organs. Some local action has also been observed as there was reduction in the symptoms during the treatment period. The post-operative procedures like *Kavala*, *Gandoosha* acts as *Sleshmahara*, *Sravahara*. Modern science says any lipid-soluble substance has greater chance for passive absorption directly through the olfactory cell of the lining membrane in the nasal mucosa. The cilia of the olfactory cells and the portions of the body of the olfactory cells contain enormous quantities of lipid materials. Non-polar hydrophobic molecules diffuse through the lipid bilayer of the plasma membrane, into and out of cells. Such molecules include oxygen, carbon dioxide and nitrogen gases, fatty acids, steroids, and fat-soluble vitamins. It is a route of absorption of some nutrients and excretion of waste by body cells that are lipid-soluble, and this is performed by *Maarjaka* karma of the *Ghrita*. Further drug absorption can also be enhanced by local massage and fomentation. *Nasya* karma with *SSY* modifies the inflammatory process by modifying gene expression which results in complex interacts with DNA to form cell regulating proteins. These proteins inhibit leukocyte priming, limit the secretion of cytokines and other mediators, and modulate enzyme systems. They also inhibit the migration of mast cells into the nasal mucosa and induce eosinopenia. Therefore there is remarkable improvement seen in Nasal Smear Test also. In addition to this, on activation of these regulatory proteins and receptors, the muscles contract, constricting blood vessels and allowing less fluid to leak into nasal tissues (oedema) and thus relieving the sensation of nasal congestion.

Decreased eosinophils and histamines result in anti-inflammatory action and capacity to reduce nasal mucosa hyper-reactivity thus desensitizing to sneez-

ing. All these beneficiary activities of SSY make its significant efficacy in combating *Kshavathu Roga* when administered in the form of *Nasya*.

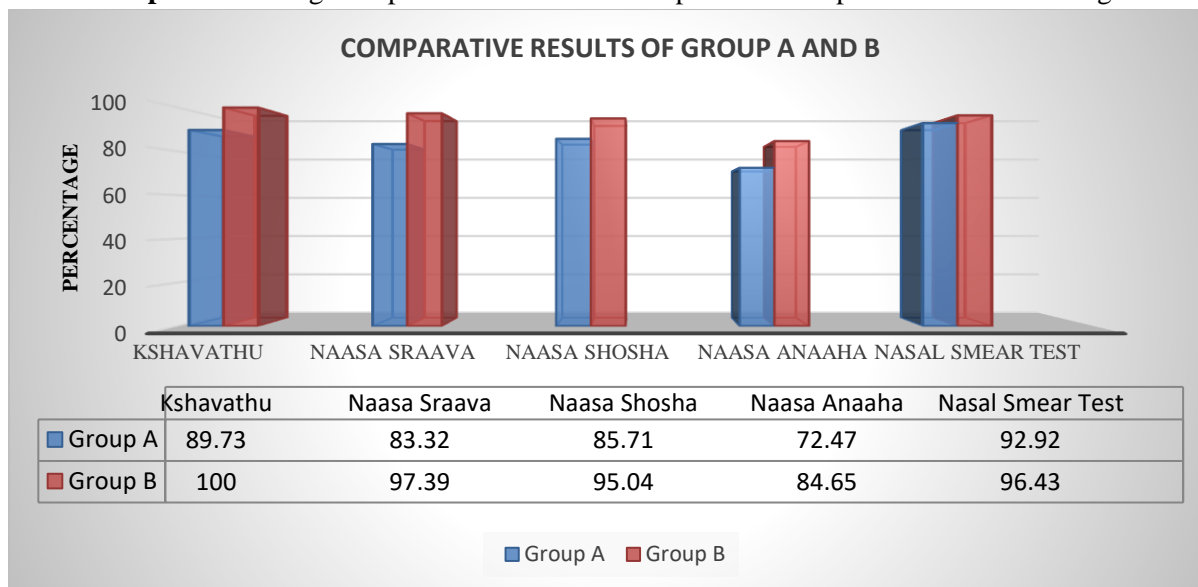
Table 5: Showing Comparative Statistical Analysis of Parameters

PARAMETER	MEDIAN (BT-AT)		MANN-WHITNEY TEST		Remarks
	GROUP A	GROUP B	T Value	P-value	
<i>KSHAVATHU</i>	2.000	3.000	186.000	<0.05(0.026)	S
<i>NAASA SRAAVA</i>	3.000	2.000	228.000	>0.05(0.854)	NS
<i>NAASA SHOSHA</i>	1.000	1.000	225.00	>0.05(0.695)	NS
<i>NAASA ANAAHA</i>	2.000	1.000	265.500	>0.05(0.158)	NS
NASAL SMEAR TEST	0.000	1.000	208.000	>0.05(0.261)	NS

Table 6: Comparative results of group a & group b on the basis of mean score & percentage

Characteristics	Group-A			Group-B		
	Mean Score		Percentage of Relief	Mean Score		Percentage of Relief
	BT	AT		BT	AT	
<i>KSHAVATHU</i>	2.60	0.267	89.73	2.80	0.00	100
<i>NAASA SRAAVA</i>	2.80	0.467	83.32	2.53	0.06	97.39
<i>NAASA SHOSHA</i>	1.40	0.20	85.71	1.33	0.06	95.04
<i>NAASA ANAAHA</i>	2.66	0.73	72.47	1.73	0.26	84.65
NASAL SMEAR TEST	7.53	0.53	92.92	9.33	0.33	96.43

Graph 1: Showing Comparative Results of Group A and Group B based on Percentage



CONCLUSION

The therapeutic effect of *Nasyakarma* with *Shunthyaadi Taila* (Group A) and *Shunthyaadi Ghrita* (Group B) was found to be beneficial in all the

cases of *Kshavathu Roga*. Both *Shunthyaadi Taila Nasya* and *Shunthyaadi Ghrita Nasya* groups showed Highly Significant results when compared within the groups out of five parameters. Only Significant dif-

ferences in the efficacy of treatments can be seen when compared between the groups over *Kshavathu* parameter. The rest of the parameters showed non-significant results. Hence by comparing the two group's results it can be stated that there is no significant difference in the efficacy of the treatment based on statistical analysis. But by comparing based on the percentage of relief, it can be concluded that *Shunthyaadi Ghrita Nasya* (Group B) is better than *Shunthyaadi Taila Nasya* (Group A).

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