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To Compare the Efficacy of Shigru Taila Nasya with Shadbindhu Taila Nasya in Vataja Pratishyaya -Nasal Eosinophilia- An Open Label Double Arm Controlled Clinical Study.

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ABSTRACT

Background: Vataja Pratishyaya is a common nasal disorder characterized by symptoms such as Nasasrava, Nasavarodha, Kshavathu, Nistoda of Shiras, Mukshashosha, Swaropaghata and Nasakandu. These features closely resemble those of nasal eosinophilia, It is characterized by the infiltration of eosinophils, a type of white blood cell involved in allergic responses, into the nasal mucosa. Eosinophils contribute to mucosal inflammation and their presence correlates with disease severity, recurrence and poorer quality of life outcomes. In Allergic rhinitis nasal smear eosinophilia is common noted approximately 60% of patients. It is considered an important marker of allergic rhinitis reflecting changes in the nasal mucosa. Approximately 22% of people suffer from Allergic rhinitis in India Nasya Karma is considered an effective treatment for diseases affecting the nasal region. This study was conducted to compare the efficacy of Shigru Taila Nasya and Shadbindhu Taila Nasya in the management of Vataja Pratishyaya.

Methodology: A comparative open-label double-arm controlled clinical study was conducted on 40 subjects diagnosed with Vataja Pratishyaya (Nasal Eosinophilia). The subjects were randomly divided into two groups of 20 each. Group A received Shadbindhu Taila Nasya and Group B received Shigru Taila Nasya for 7 days. Assessment was done on the 8th day and follow-up was carried out on the 15th day. The efficacy of the treatments was evaluated using subjective symptoms, nasal smear eosinophilic count, and TNSS questionnaire scores.

Result: The results of the study revealed that both Shigru taila Nasya and Shadbindhu taila Nasya proved beneficial in the management of Vataja Pratishyaya. Shigru taila Nasya demonstrated comparatively better improvement in symptom such as Nasasrava, Nasavarodha, Kshavathu, Nasakandu, Nasal smear eosinophilic count and TNSS questionnaire.

Conclusion: The observed therapeutic benefits can be attributed to the Vata- Kapha hara, Srotoshodhaka and Sothahara of the formulations, which helped in expelling the vitiated Kapha, normalize the Vata dosha

and improve nasal mucosal health. Thus, both formulations were beneficial, with Shigru taila Nasya showing relatively better efficacy in the management of Vataja Pratishyaya.

Keywords: Vataja Pratishyaya, Nasal eosinophilia, Nasya karma, Nasal smear, Taila

INTRODUCTION

Vataja Pratishyaya is characterized by symptoms such as Mukhasosha, Tanusrava, Bhrishakshava, Ghranoparodha, Nisthoda in siras, Swarasada and Chirapaka indicating the predominance of aggravated Vata dosha. This particular condition stimulates Nasal eosinophilia also a term reserved as Eosinophil count increase in nasal mucosa. Patients with Nasal eosinophilia often shows sneezing, nasal obstruction, watery nasal discharge and itching of the nose.

Modern management of Nasal allergy primarily includes antihistamines, corticosteroids and nasal decongestants which aim to provide quick and symptomatic relief. Prolonged and repeated use of these drugs is often associated with problems such as recurrence of symptoms and drug dependency. Ayurveda emphasizes Nasya karma as the prime line of treatment for disorders of the nose and head. Since Nasa is the gateway of Shiras, it serves as the most appropriate route for administering Nasya karma, which is highly beneficial in the management of various Nāsarogas. In Pratishyaya, Shirovirechana Nasya is indicated to pacify aggravated Vata dosha and eliminate the Sthanika Kapha dosha accumulated in Urdhwajatrugatabhaga, thereby restoring the normal functioning of the nasal pathways.

Shigru Taila possesses Vata-Kapha shamaka, Shothahara and Srotoshodhana properties, making it a promising formulation in Nasavikaras. Shadbindhu Taila, a classical and widely used formulation for Pratishyaya, is known for its Tridoshaghna action and proven efficacy in Nasagata rogas.Hence, this study aims to comparatively evaluate the efficacy of Shigru Taila Nasya and Shadbindhu Taila Nasya in the management of Vataja Pratishyaya with special reference to nasal eosinophilia, in order to establish a safe, effective and evidence-based Ayurvedic therapeutic approach.

MATERIAL AND METHODS

Subjects:

Participants falling under diagnostic and inclusion criteria were recruited approaching the Outpatient and Inpatient department of Shalakya Tantra, Shri Dharmasthala Manjunatheshwara Institute of Ayurveda and Hospital, Bengaluru.

Inclusion criteria for the study were:

- Patients presenting with lakshanas of Vataja Pratisyaya,
- Nasal eosinophilia confirmed through Nasal smear
- Patients of either sex, with age group between 20 – 40 years
- Patient with chronicity less than 5 years
- Patients fit for Nasya karma

Exclusion criteria for the study were:

- Patients suffering from upper respiratory tract infections
- Patients who have uncontrolled Diabetes mellitus and Hypertension.
- Patient having recent medical therapy for eosinophilia

- Patient having any associated conditions like migraine headache, gross DNS, tonsillitis, adenoiditis will be excluded

Intervention

Group A – Control Group- Shadbindhu Taila Nasya

Sample size: 20	
Shadbindu taila Nasya	Nasya done for 7 days (6 drops of taila to each nostril)
Duration of study	15 days
Assessment	• 0^{th} day diagnosis (before treatment) • 8^{th} day assessment (after treatment) • • 15^{th} day Follow up

Group B- Trial group – Shigru Taila Nasya

Sample size: 20	
Shigru taila Nasya	Nasya done for 7 days (6 drops of taila to each nostril)
Duration of study	15 days
Assessment	• 0^{th} day diagnosis (before treatment) • 8^{th} day assessment (after treatment) • 15^{th} day Follow up

METHOD OF PREPARATION OF MEDICINE FOR STUDY:

Shigru taila ingredients

Sl. No	Sanskrit name	Botanical name	Part used	Proportion
1	Shigru	Moringa olifera Lam.	Stem	40gm
2	Priyangu	Callicarpa macrophylla Vahl.	Seeds	40gm
3	Vacha	Acorus calamus Linn.	Root	40gm
4	Sunti	Zingiber officinalis Roscoe.	Rhizome	40gm
5	Pippali	Piper longum L.	Fruit	40gm
6	Maricha	Piper nigrum Linn.	Fruit	40gm
7	Draksha	Vitis vinifera Linn.	Fruit	40gm
8	Surasa	Ocimum sanctum L.	Samoola	40gm
9	Tila taila	-	-	1.5l

ASSESSMENT SCHEDULE

1^{st} assessment	Before treatment	Day 0	All the subjective & Objective parameters.

2nd assessment	After Treatment	Day 8th	All the subjective & Objective parameters excluding TNSS Questionnaire.
3rd assessment	After Follow-Up	Day 15th	All the subjective & Objective parameters excluding Nasal smear eosinophilic count.

ASSESSMENT CRITERIA- GRADATION INDEX

Sl.no	Lakshana	Grade -0	Grade- 1	Grade -2	Grade- 3
1	Nasasrava	No Discharge	Occasional	Scanty intermittent	Recurrent discharge
2	Nasavarodham	No Blockage	Unilateral partial blockage	Unilateral total Blockage	Bilateral Blockage with mouth breathing
3	Mukhashosha	No Discharge	Occasional	Scanty intermittent	Recurrent discharge
4	Kshavathu	No Sneezes	Few short episodes of sneezes	Occasional sneezes	Frequent sneezes
5	Nistoda of Shiras	Absent	Mild	Moderate	Headache throughout the day
6	Nasa kandu	Absent	Mild	Moderate	Severe
7	Nasalsmear eosinophilic count	Absent	Occasional granules	Moderate number of granules	Many granules easily seen

Nasal Sampling and Staining: Nasal cytology was performed using a pencil-shaped disposable nasal curette with a cup-shaped tip. The tip was gently passed over the medial aspect of the inferior turbinate, and two to three gentle scrapings were taken to collect the sample. The collected material was spread onto a clean glass slide and air-dried. The smear was then fixed in methanol for 10 minutes, stained with May–Grünwald solution for 5 minutes, followed by Giemsa solution for 15 minutes, and finally washed with distilled water and allowed to dry.

Microscopic Examination: The stained slides were examined under an optical microscope at 1000× magnification using an oil-immersion objective. The cells were identified based on their morphological characteristics and staining patterns. Eosinophils were identified by their characteristic bilobed nuclei and prominent red-orange cytoplasmic granules. The nasal eosinophil count was assessed and recorded according to the study protocol to evaluate eosinophilic inflammation of the nasal mucosa.

OBSERVATION -Demographic Data

Sl. No	Demographic Data	Percentage	Sl. No	Demographic Data	Percentage
1	Age	20-30 (17.5%), 30-40 (82.5%)	9	Vikruthi	P(37.5%),M (55%),A(7.5%)
2	Gender	Male (50%), Female (50%)	11	Samhanana	P(27.5%),M(57.5%),A(15%)
3	Religion	Hindu (92.5%)	12	Pramana	U(57.5%) &M(42.5%)
4	Family history	Positive (42.5%), Negative (57.5%)	13	Satva	P(22.5%),M(72.5%),A(5%)
5	Education	Graduate – 67.5%	14	Satmya	P(22.5%),M(72.5%),A(5%)
6	Occupation	Students & Home maker-22.5%, Business (17.5%)	15	Abhyavaharana sakti	P(20%),M(47.5%),A(32.5)%
7	Diet	Veg (32.5%). Non veg (67.5%)	16	Jarana sakti	P(12.5%),M(45%),A(42.5%)
8	Prakruthi	VP (37.5%), VK (32.5%)	17	Vyayama sakti	P(22.5%),M(22.5%),A(55%)
10	Sara	P25%), M(60%),A(15%)	-	-	-

LAKSHANAS

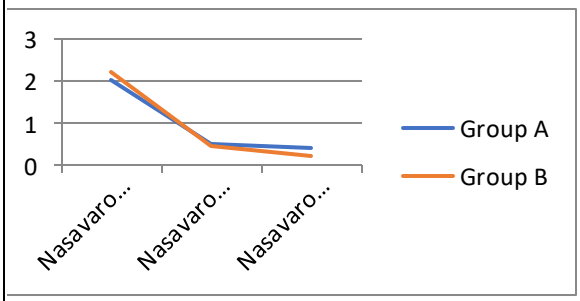
Lakshanas	Group A		Group B		Total	
	Frequency	%	Frequency	%	Frequency	%
Nasasrava	20	100	20	100	40	100
Nasavarodha	19	95	20	100	39	97.5
Mukkhashosha	7	35	7	35	14	35
Kshavathu	20	100	20	100	40	100
Nistoda of shiras	13	65	12	60	25	62.5
Swaropaghata	10	50	14	75	24	60
Nasakandu	20	100	20	100	40	100

RESULTS.

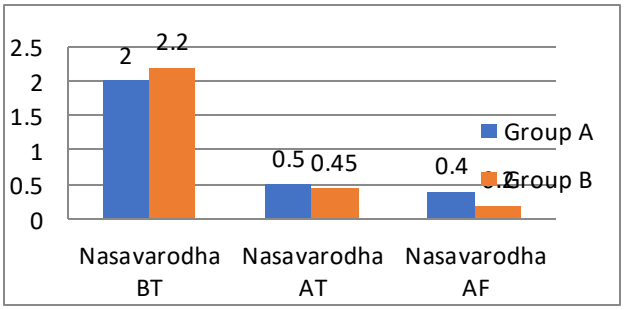
Sl.No	Lakshanas	χ^2Values within Group A	χ^2Values within Group B	Between the group
1	Nasasrava	37.143	37.692	Statistically non-significant, but χ2 Values of Group B showed better results
2	Nasavarodha	36.847	36.847	Statistically non-significant, χ2 values showed equal effects.
3	Mukhashosha	12.000	12.000	Statistically non-significant, χ2 values showed equal effects.
4	Kshavathu	33.818	37.176	Statistically non-significant, but χ2 Values of Group B showed better results
5	Nistoda of Shiras	22.947	22.947	Statistically non-significant, χ2 values showed equal effects.
6	Swaropaghata	20.421	30.471	Statistically non-significant, but χ2 Values of Group B showed better results
7	Nasakandu	35.412	37.692	Statistically non-significant, but χ2 Values of Group B showed better results
8	Nasalsmear eosinophil	5.300	11.617	Statistically non-significant, but χ2 Values of Group B showed better results

GRAPHS

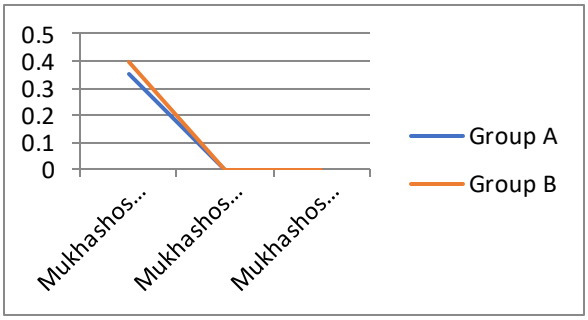
Nasavarodha within Group A & Group B



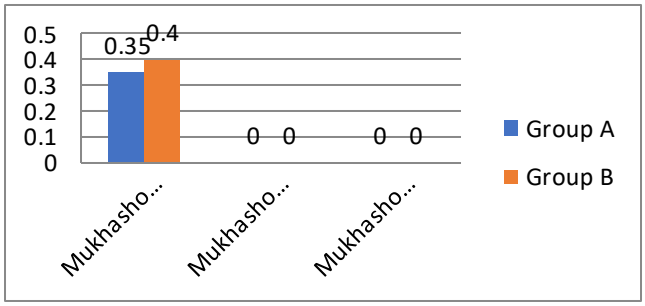
Nasavarodha between Group A & Group B



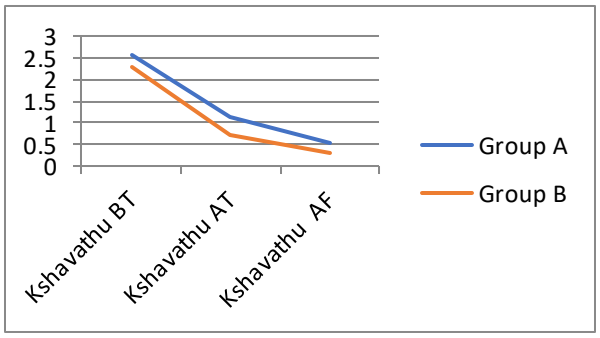
Mukhashosha within Group A & Group B



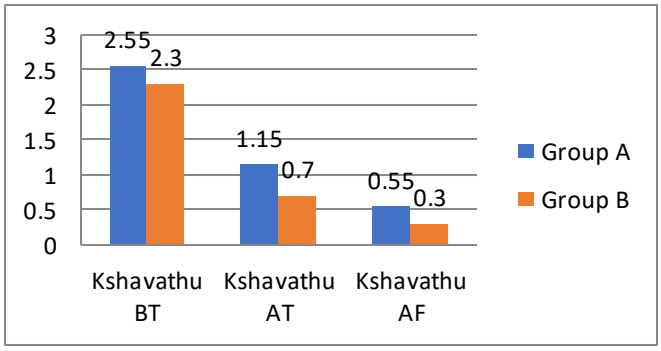
Mukhashosha between Group A & Group B



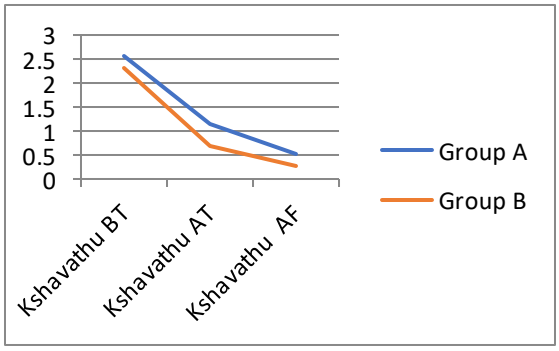
Kshavathu within Group A & Group B



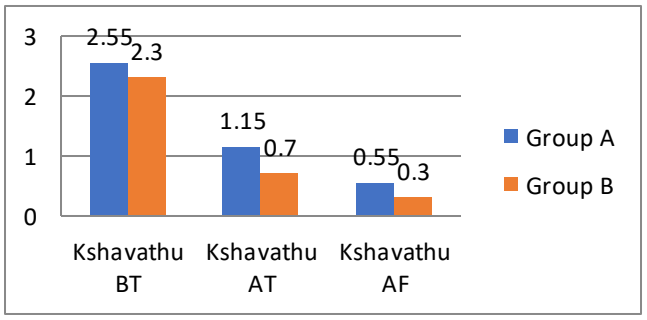
Kshavathu between Group A & Group B



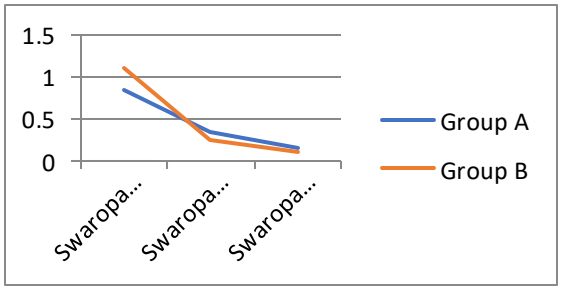
Nistoda of Shiras within Group A &B



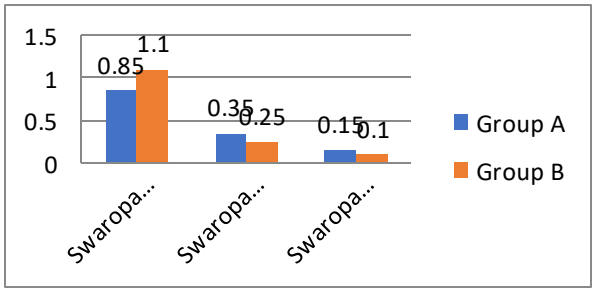
Kshavathu between Group A & Group



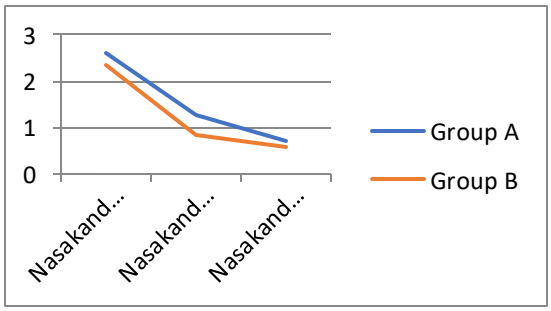
Swaropaghata within Group A & Group B



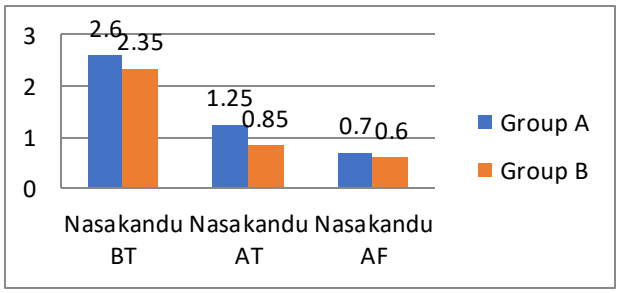
Swaropaghata between Group A & Group B



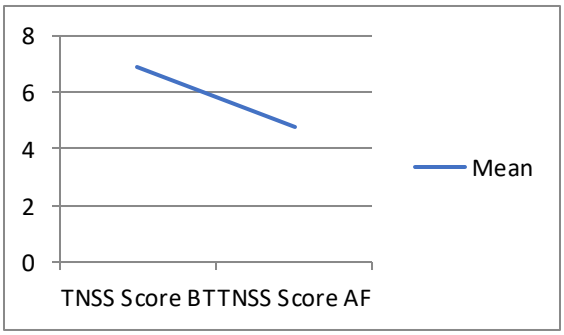
Nasakandu within Group A & Group B



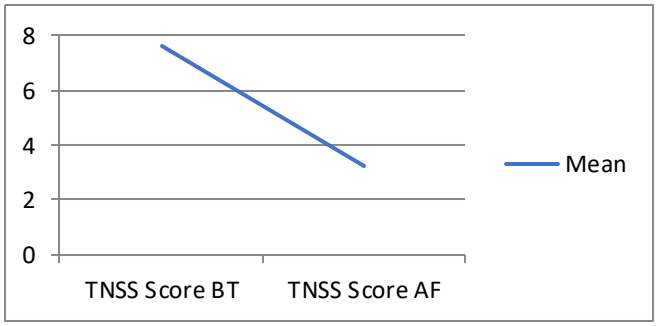
Nasakandu between Group A & Group B



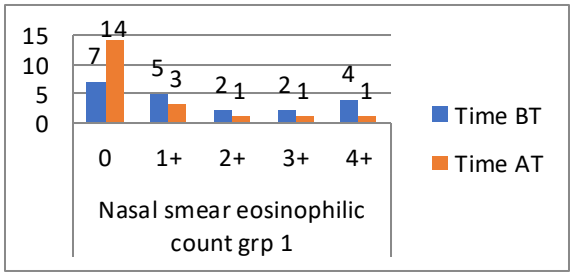
TNSS within Group A



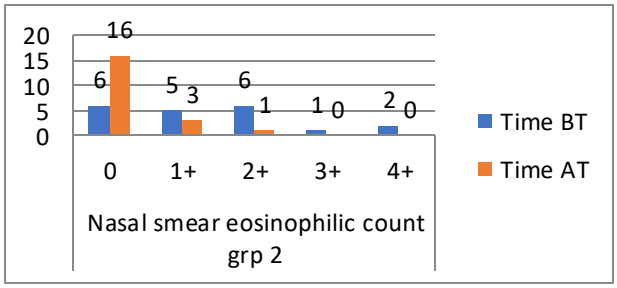
TNSS within Group B



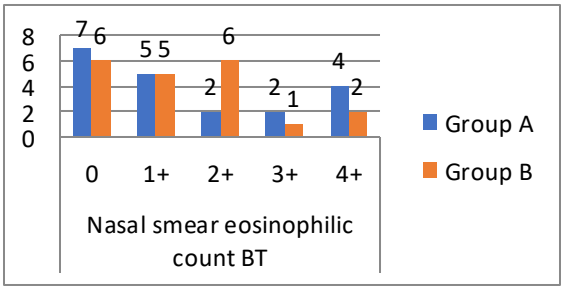
Nasal smear eosinophilic count within Group A.



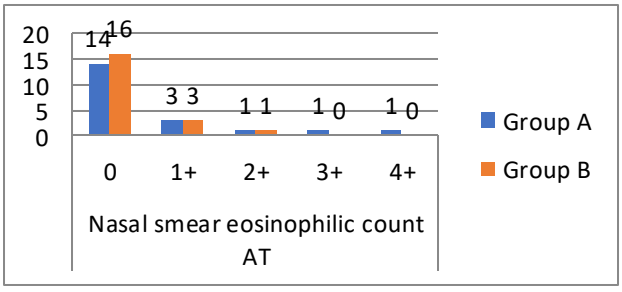
Nasal smear eosinophilic count within Group B



Nasal smear eosinophilic count within Group A& B-BT



Nasal smear eosinophilic count within Group A& B-AT



DISCUSSION

Vataja Pratishyaya shares several clinical features with nasal allergic conditions, providing an Ayurvedic basis for exploring its management in patients with Nasal eosinophilia. Considering the recurrent nature of the condition and the limitations of symptom control in some patients, the present study was undertaken

to evaluate the efficacy of Shigru Taila Nasya in comparison with Shadbindhu Taila Nasya. The study aims to explore their therapeutic potential through the principles of Ayurveda and clinical assessment.
Shigru Taila, mentioned in Vangasena Samhita, Nasarogadhikara Adhyaya, was selected based on the Ayurvedic properties of its constituent drugs and their potential relevance to Vataja Pratishyaya. The predominance of Katu and Tikta Rasa, Ushna Veerya and Laghu Guna are considered beneficial in managing Vata-Kapha imbalance. Katu Rasa supports Srotovishodhana and Kapha Vilayana, while Tikta Rasa is associated with Lekhana and Shoshana actions. Ushna Veerya may help pacify Vata and Kapha, whereas Laghu Guna counteracts the Guru Guna of Kapha, thereby supporting relief from nasal obstruction and heaviness. Shigru is described as a Shirovirechana drug and is attributed with Shothahara activity. Other ingredients, including Vacha, Shunti, Pippali, Maricha and Surasa, are traditionally associated with Deepana-Pachana and other actions that may contribute to Samprapti Vighatana. From a pharmacological perspective, constituents reported in these drugs, such as quercetin, kaempferol and glucosinolates in Shigru, piperine in the Vyosha group, and volatile compounds in Surasa, have been investigated for various biological activities, including anti-inflammatory and antiallergic effects. However, the clinical contribution of these constituents to the action of the complete formulation requires further investigation. Saindhava is traditionally considered supportive of Kapha Vilayana. Collectively, these properties provide the rationale for selecting Shigru Taila for the management of Vataja Pratishyaya. The therapeutic rationale of Marsha Nasyakarma can be understood through both Ayurvedic principles and the physiological characteristics of the nasal route. In Ayurveda, Taila-based Nasya is considered beneficial for pacifying aggravated Vata, managing Kapha accumulation and maintaining the health of the nasal passages. Taila possesses Snigdha and Sukshma Gunas, which are traditionally associated with lubrication and penetration into the Srotas. From a modern perspective, the nasal mucosa is highly vascular and provides a route for local drug delivery and absorption. Nasally administered substances may also interact with sensory pathways, including the olfactory and trigeminal systems, although the extent of these effects depends on the formulation and its constituents. The lubricating properties of Taila may help maintain mucosal moisture and reduce dryness and irritation. Thus, the combined Ayurvedic rationale and potential local effects of Taila-based Nasya provide a basis for investigating its role in symptom management in Vataja Pratishyaya. Its specific mechanisms and clinical efficacy, however, require evaluation through appropriately designed studies.

Conclusion

- The present clinical study pointed that both Shadbindu taila Nasya and Shigru taila Nasya were effective in reducing the symptoms of Vataja Pratishyaya. The significant improvement observed in both groups reveals the beneficial effect of Nasya karma along with the therapeutic action of the drugs.
- When considering subjective parameters statistically there was no significant difference. While comparing Chi-square values Group B showed better improvement in Nasavarodha, Kshavathu, Nasakandu and Nasasrava. whereas both groups produced similar effect in Mukhashosha and Nistoda of Shiras.
- Objective parameters such as Nasal smear eosinophilic count showed better improvement in Group B while TNSS questionnaire also revealed comparatively slight improvement in Group B
- On comparison between the two groups using the Chi-square test, Group B (Shigru Taila Nasya) showed better improvement than Group A (Shadbindhu Taila Nasya), indicating superior therapeutic outcomes with Shigru Taila Nasya.

- Future studies with larger sample sizes, multicentric designs, and longer follow-up periods are recommended to evaluate the long-term efficacy, recurrence rate, and geographical and seasonal influences on the management of Vataja Pratishyaya.
- Incorporating immunological investigations, detailed nasal cytology, improved nasal smear collection techniques, and Rasayana therapy may provide further insights into the underlying mechanisms, immune response, and prevention of recurrence.

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