CASE STUDY

Comparative Efficacy of Shunthyadi Taila Nasya Versus Pippalyadi Taila Nasya along with Chitraka Haritaki Systemically in the Management of Allergic Rhinitis – A Case Series

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Abstract

Purpose: Poor lifestyle habituates such as exposure to mist, wind, and dust are the factors responsible for allergic symptoms of the nose and its severity. Allergic rhinitis (AR) is an allergic disease that affects 10–30% of the population. Symptoms include runny nose, sneezing, nasal obstruction, and nasal itching vary from individual, with treatment modalities such as antihistamine, intranasal glucocorticoid, and immunotherapy which need a longer period. In Ayurveda, the symptoms of AR are seen in Nasa Roga under Kshavathu where it gets relief from symptoms and increases the immune system. Hence, Shunthyadi Taila and Pippalyadi Taila nasal drops along with Chitraka Haritaki systemically are administrated. **Methodology:** Patients aged ≥19 years are included with complaints of watery nasal discharge, paroxysmal sneezing, nasal blockage, or two or more symptoms, with the sample size of 10 in each group and assessed by parameter immunoglobulin (Ig) E level, absolute eosinophil count, and total nasal symptom score (TNSS). Seven days of Marsha Nasya were done with both Taila doses of 4 mL in each nostril along with Chitraka Haritaki internally given in both groups for 30 days of treatment period with pre- and post-assessment. **Results:** Post-treatment showed significant improvement in TNSS score, eosinophil count, and serum IgE which is statistically significant with $P < 0.05$. **Conclusion:** AR is managed by Ayurveda protocol by Nasya and orally mainly controls Vata Kapha dosa. Shunthyadi Taila helps to control acute or sub-acute exacerbation of the symptoms. Chitraka Haritaki has an anti-allergic effect in treating nasal allergies. Hence, both are effective in controlling AR.

Key words: Ayurveda therapy, kshavathu, nasal drops

INTRODUCTION

Certain diseases may not be life threatening but are increasingly annoying and irritating to the individual as it causes hindrance to his daily routines. Moreover, when neglected, they may lead to serious complications. Allergic rhinitis (AR) is one such condition and is becoming increasingly prevalent these days, hence demanding great concern.[1] AR is an Immunoglobulin (Ig) E-mediated immunologic response of nasal mucosa characterized by sneezing, watery nasal discharge, nasal obstruction, hoarseness of voice, itching in eyes, ears, nose, and throat.[2] According to the WHO, it is the fourth most important chronic disease affecting 10–30% of adults and 40% of children. Complications of AR include otitis media, Eustachian tube dysfunction, and acute and chronic sinusitis. It can also be associated with asthma, atopic dermatitis, and nasal polyps

Received: 20-11-2023
Revised: 22-12-2023
Accepted: 31-12-2023

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severely affecting the quality of life and may even lead to mortality. The present allopathic management includes second-generation antihistamines, nasal corticosteroid spray, decongestants, and immunotherapy.[3] In Ayurveda, the symptom of sneezing is seen in vataja pratishyaya and Ksavathu. In Doshaja Ksavathu (due to imbalance in the doshas) which is chronic in origin where the agni is also impaired. Considering the above matters, in this stage, it is important to plan the treatment which addresses both the factors agni and elimination of the doshas.[4] As AR is an IgE-mediated immune response, it is also important to have an anti-allergic effect. Hence, Pippalyadi Taila and Shunthyadi Taila were the trial drugs. Chitraka Haritaki has the added benefit of increasing the agni and vata Anulomana which has anti-allergic effect.[5]

Table 1: Treatment given in both groups

Group	Group A	Group B
Sample size	10	10
Method	Shunthyadi Taila Nasya and Chitraka Haritaki	Pippalyadi Taila Nasya and Chitraka Haritaki
Dose	Taila: 8 Bindu (4 mL) once a day for 7 days. 1 Bindu: 0.5 mL Chitraka Haritaki: 6 gms twice a day for 30 days. (1 karsha, that is, 12 gms in divided dose)	Taila: 8 Bindu (4 mL) once a day for 7 days. 1 Bindu: 0.5 mL Chitraka Haritaki: 6 g twice a day for 30 days. (1 karsha, that is, 12gms in divided dose)
Duration of Nasya	Marsha Nasya was done for 7 days in the morning	Marsha Nasya was done for 7 days in the morning

Table 2: Wilcoxon signed-rank test of TNSS score in Group A

Ranks	N	Mean rank	Sum of ranks
GP_B_TNSS_AT-Gp_B_TNSS_BT			
Negative ranks	0	0.00	0.00
Positive ranks	10	5.50	55.00
Ties	0		
Total	10		

Table 3: Wilcoxon signed-rank test of TNSS score in Group B

Ranks	N	Mean rank	Sum of ranks
Gp_A_TNSS_AT-Gp_A_TNSS_BT			
Negative ranks	10	5.50	55.00
Positive ranks	0	0.00	0.00
Ties	0		
Total	10		

Table 4: Paired t-test results of objective parameters in Group A

Paired samples test	Paired differences					t	df	Sig. (2-tailed)
	Mean	SD	SE Mean	95% Confidence interval of the difference				
				Lower	Upper			
Pair 1								
Gp_A_Serum_IgE_BT-Gp_A_Serum_IgE_AT	54.00000	27.98412	8.84936	33.98136	74.01864	6.102	9	0.000
Pair 2								
Gp_A_AEC_BT-GP_A_AEC_AT	110.70000	39.17213	12.38731	82.67795	138.72205	8.937	9	0.000

Table 5: Paired t-test results of objective parameters in Group B

Paired samples test	Paired differences					t	df	Sig. (2-tailed)
	Mean	SD	SE Mean	95% Confidence interval of the difference				
				Lower	Upper			
Pair 1								
Gp_B_Serum_IgE_BT-Gp_B_Serum_IgE_AT	−369.40000	101.83451	32.20290	−442.24802	−296.55198	−11.471	9	0.000
Pair 2								
Gp_B_AEC_BT-Gp_B_AEC_AT	−343.90000	101.59555	32.12733	−416.57708	−271.22292	−10.704	9	0.000

Table 6: Showing Mann–Whitney results of objective parameters between the groups

Ranks	Group	N	Mean rank	Sum of ranks
AEC_BT	Group A	10	9.90	99.00
	Group B	10	11.10	111.00
	Total	20		
AEC_AT	Group A	10	10.70	107.00
	Group B	10	10.30	103.00
	Total	20		
TNSS_BT	Group A	10	9.00	90.00
	Group B	10	12.00	120.00
	Total	20		
TNSS_AT	Group A	10	13.50	135.00
	Group B	10	7.50	75.00
	Total	20		
Serum_IgE_BT	Group A	10	9.05	90.50
	Group B	10	11.95	119.50
	Total	20		
Serum_IgE_AT	Group A	10	9.50	95.00
	Group B	10	11.50	115.00
	Total	20		

METHODOLOGY

Twenty patients reporting at the outpatient department of *salakyatantra* with aged ≥19 years are included whose clinical features such as sneezing, runny nose, congestion, presence of two or more symptoms of AR such as nasal congestion, rhinorrhea, nasal itching, and sneezing are included.[6] Currently taking any of the following medications or cannot stop taking medication is unsuitable for this clinical trial and received treatments due to acute upper respiratory infections or sinusitis within the previous 4 weeks. Anatomical obstructions or deformities of the nasal cavity or underwent nasal surgery within the previous 6 months has a history of active respiratory diseases such as asthma, deviated nasal septum/nasal polyps/nasal growth/adenoids, those who are on steroids and immunomodulatory/immunosuppression are excluded from the study.[6] The study procedure was explained to all patients participating in the study. The total duration of treatment was 30 days.

Therapeutic intervention

Ten patients were given Marsha Nasya with Shunthyadhi Taila for 7 days along with Chitraka Haritaki for 30 days in A Group. Ten patients in Group B were given Marsha Nasya with Pippalyadi Taila for 7 days along with Chitraka Haritaki for 30 days. The therapeutic intervention adopted in this study is summarized in Table 1.

After Marsha Nasya, the patients were advised to continue internally Chitraka Haritaki for the remaining period of 1 month. Pre- and post-assessment were conducted in serum IgE level, absolute eosinophil count (AEC), and total nasal symptom score (TNSS). Gradation of symptoms for TNSS score (TNSS; a possible score of 0–12) is the sum of 4 individual participant-assessed symptom scores for rhinorrhea, nasal congestion, nasal itching, and sneezing, each evaluated using a scale of 0 = None, 1 = Mild, 2 = Moderate, or 3 = Severe.[7]

RESULTS

Of the 20 patients registered in this study, each case was observed for prevalence according to age, sneezing, nasal discharge, and nasal congestion. Wilcoxon signed-rank test showed a reduction in TNSS score after treatment which is significant at $P < 0.05$ in Group A and Group B [Tables 2 and 3].

A paired t-test was performed to evaluate the significant difference in the mean value of the serum IgE level and AEC

Table 7: Mann–Whitney results of objective parameters between the groups

Test Statistics[a]	AEC_BT	AEC_AT	TNSS_BT	TNSS_AT	Serum_IgE_BT	Serum_IgE_AT
Mann–Whitney U	44.000	48.000	35.000	20.000	35.500	40.000
Wilcoxon W	99.000	103.000	90.000	75.000	90.500	95.000
Z	−0.454	−0.154	−1.831	−2.690	−1.098	−0.763
Asymp. Sig. (2-tailed)	0.650	0.878	0.067	0.007	0.272	0.446
Exact Sig. (2[1-tailed Sig.])	0.684[b]	0.912[b]	0.280[b]	0.023[b]	0.280[b]	0.481[b]

a: Grouping Variable: Group, b: Not corrected for ties

before treatment and after treatment in both groups. The result is statistically significant with $P < 0.001$. In Group A and B paired t-test shows that in all 10 patients in each group, serum IgE level and AEC were reduced considerably after treatment and are statistically significant with $P < 0.001$. Statistical data in objective parameters are shown in Tables 4 and 5.

TNSS score, serum IgE, and AEC level showed a marked improvement in both the groups though there was no significant difference between the groups since the small sample size seen in Tables 6 and 7.

DISCUSSION

Nasyakarma is considered the best and most specific procedure for diseases of the head and neck, as it eliminates vitiated Doshas from Urdhwanga. Here, Shunthyadi Taila which contains Shunthi (*Zingiber Officinale*), Pippali (*Piper longum*), Vidangam (*Embelia ribes*), draksha (*Vitis vinifera*), Kusta (*Saussurea lapa*) which is of kapha vata shamana, because of Teekshna and Sukshmaguna, it does Srothoshodhana. By the above properties, the nasya drugs remove the obstruction and facilitate the drainage of discharge. It acts as Balya, and rasayana by nourishing dhatus and enhances immunity.[8] Sunthi is proven as an antihistamine that brings relief to the symptoms. Pippalyadi Taila contains pippali, Sigru beeja, vidanga, and maricaare having the properties such as Vatashamaka (Pacifies Vata), Kaphanashaka (Pacifies Kapha), Srotoshodhana (Cleans the channels), Rasayana (Immuno modulator/Rejuvenation), anti-inflammatory, and antibacterial.[9]

Chitraka haritaki which is indicated in kasa, swasa, urah kshata, and peenasa and has added benefit of increasing the agni and vatanulomana will be useful in anti-allergic effects which is very crucial in treating nasal allergy. The drugs used in both groups are ushna and tikshna hence alleviating the vata-kapha, pacifying allergy, and increasing immunity.

CONCLUSION

This clinical study validates the efficacy of Ayurvedic intervention, that is, *shunthyadi, Pippalyadi thaila* in the management of AR. No significant difference was found in the groups because of less sample size. However, clinically both the groups are effective in reducing the symptoms of AR. Here, the drug's action is expected against allergic conditions hence it needs a long-term intake. Oral administration of Chitraka Haritaki reduces allergy in the body systems and improves its functioning which is validated by serum IgE and AEC blood level. The treatment of AR with Shunthyadi Taila and Chitraka Haritaki not only gives clinical improvement but also has an immune modulation effect. The use of steroids can be reduced, and we can overcome the side effects of steroid usage.

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Source of Support: Nil. **Conflicts of Interest:** None declared.