

A COMPARATIVE STUDY ON THE THERAPEUTIC EFFECT OF VYOSHADI VATAKA WITH AND WITHOUT LAJA SAKTU GHRITA DHOOMAPANA IN VATAJA PRATISHYAYA (ALLERGIC RHINITIS)

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ABSTRACT

Allergic Rhinitis, an atopic disease explained in modern medicine has a close resemblance with the clinical entity of *Vataja Pratishyaya*. It is burning problem because of its recurrence and chronicity and it can significantly impair the quality of life of patients. Current line of management advocates the use of antihistamines, nasal decongestants, topical steroids and immunotherapy which is not found to be satisfactory due to its high recurrence rate. Hence a single blind, open randomized trial was taken up. 40 patients of *Vataja Pratishyaya* were selected from the OPD and IPD of the *Shalaky tantra* department of SKAMCH&RC Bangalore and made into two groups. Patients of Group A were treated with *Dhoomapana* with *Lajasaktu Ghrita* for seven days along with *Vyoshadi vataka* internally for 15 days. Patients of Group B were treated with *Vyoshadi vataka* internally for 15 days. The group with both *Dhoomapana* and *Vyoshadi vataka* responded better when compared to the group with only *vyoshadi vataka* based on statistical analysis indicating the long standing and the added effect of *dhoomapana* in Group A.

Keywords: *Vataja Pratishyaya*, *Vyoshadi vataka*, *Lajasaktu Ghrita*, *Dhoomapana*, Allergic Rhinitis

INTRODUCTION

Allergic respiratory diseases have become more common worldwide in recent years due to exposure towards air pollutants and climatic changes and it represents a challenge to the public health in both industrialized and developing countries because of its chronic nature and economic impact.

Allergic rhinitis is one of the most common chronic disorders, with reported prevalence ranging from 3% to 19% in various countries. Allergic rhinitis is a het-

erogeneous disorder that includes seasonal allergic rhinitis and the more difficult diagnostic category, perennial allergic rhinitis. Evidence suggests that seasonal allergic rhinitis is found in approximately 10% of the general population and perennial allergic rhinitis in 10% to 20%.¹ and the prevalence of the disorder is increasing. Severe allergic rhinitis has been associated with significant impairments in quality of life, sleep and work performance. Because of the slow evo-

lution and chronic nature, there are opportunities for prevention.

In allied science the treatment for allergic rhinitis aims at symptomatic relief. Therapeutic options available to achieve this goal include avoidance measures, oral antihistamines, intranasal corticosteroids, leukotriene receptor antagonists, and allergen immunotherapy. Other therapies that may be useful include decongestants and oral corticosteroids.² The most common side effects of intranasal corticosteroids are nasal irritation and stinging. Evidence suggests that intranasal beclomethasone may slow growth in children.³ Thus the current line of management is found to be deficient due to high recurrence rate and adverse effects.

Owing to all these factors it represents a challenge to the public health in both industrialized and developing countries. Hence it is the need of hour to find out an effective treatment which can provide the optimum cure and prevent further recurrence by enhancing the body immunity.

Ayurveda-the science of longevity emphasizes on maintaining health of an individual by proper conduct, diet and rejuvenation. In the present scenario the science of Ayurveda is evolving as a measure for health promotion and treatment of various diseases. During the recent few decades, there have been constant efforts to apply the wisdom of this science for the effective management especially in chronic respiratory disorders and it has come out with beneficial claims. Ayurveda provides the optimum cure by enhancing the immunity and regulating the life style.

The disease *Vataja Pratishyaya* explained in ayurvedic treatises is analogous to Allergic rhinitis as explained in modern medical science as most of the aspects like aetio pathogenesis, clinical features and complications of allergic rhinitis are similar to that of *vataja pratishyaya*.

Acharyas have emphasized on the *ama pachana*, *kapha hara*, *srotoshodhana*, *vatanulomana* and *rasayana chikitsa* in treating *pratishyaya* based on the *samprapti*. *Dhoomapana* or inhalation of medicated smoke has been specially employed for diseases of *Kapha-Vata dosha* origin pertaining to *urdhvajatru* and it has been specially indicated for *pratishyaya*

chikitsa. By means of *dhoomapana* as a mode of drug administration in *pratishyaya* the drug can reach the desired site of action directly.

Thus the present study is being undertaken to scientifically study and validate the effect of *Vyoshadi Vataka* and *Laja Saktu ghrita dhoomapana* explained under the context of *pratishyaya* for the management of *Vataja Pratishyaya*.⁴

OBJECTIVES OF THE STUDY

- To evaluate the clinical efficacy of *Vyoshadi vataka* with *Laja Saktu Ghrita Dhoomapana* in the management of *Vataja Pratishyaya* w.s.r to Allergic Rhinitis.
- To evaluate the clinical efficacy of *Vyoshadi vataka* in the management of *Vataja Pratishyaya* w.s.r to Allergic Rhinitis.
- To compare and evaluate clinical efficacies of both the groups.

MATERIALS AND METHODS

- This observational clinical study has been approved by the institutional ethical committee of SKAMCH & RC Bangalore. Before the start of the study written consent was taken from each patient willing to participate. Patients were free to withdraw their name from the study at any time without giving for any reason thereof.
- The diagnosis of '*Pratishyaya*' – Allergic rhinitis was done on both the modern and ayurvedic basis. For this purpose, a special research proforma was prepared as per the modern and Ayurvedic view. The documentation has been made regarding history of the present complaint, past ocular history, present and past medication history. The detailed examination of ear, nose, throat and eyes has been performed. Routine blood investigations, fasting blood sugar, serum cholesterol and routine urine investigations were done to rule out any systemic diseases. AEC test was done in all the patients to confirm the diagnosis.

STUDY DESIGN

The study was randomized double arm controlled open label study; phase III clinical study.

PREPARATION OF MEDICINE

Method of Preparation of ‘Vyoshadi vataka’

Preparation of the Medicine:

Each drug has been taken in the following ratio (Table1):

SI NO	INGREDIENTS	QUANTITY
1	<i>Pippali</i>	250gm
2	<i>Maricha</i>	250gm
3	<i>Shunti</i>	250gm
4	<i>Taleesa</i>	250gm
5	<i>Chavika</i>	250gm
6	<i>Chincha</i>	250gm
7	<i>Vrikshamla</i>	250gm
8	<i>Chitraka</i>	250gm
9	<i>Ajaji</i>	250gm
10	<i>Twak</i>	60gm
11	<i>Ela</i>	60gm
12	<i>Patra</i>	60gm
13	<i>Guda</i>	6kg

All the ingredients are finely powdered and mixed thoroughly to get a uniform mixture. After the *siddalakshanas of guda* being attained the container was carefully taken away from the heating place and

“Vyoshadi vataka” selected as internal medicine is mentioned under *Pratishyaya Chikitsa* in *Uttarastana of Ashtanga Hrudaya*⁹. The raw drugs have been procured from ayurvedic raw drug distributors and the same has been identified and authenticated by the Dept of Dravyaguna, SKAMCH&RC, Bangalore. The *Chitraka* is subjected to *shodhana* before usage based on the method in Ayurvedic Pharmacopoeia of India.

the fine powder of drugs were added and stirred well. After cooling the pills of 4gm weight were prepared. The above prepared tablets were sealed in packets after complete cooling.

Method of Preparation of Laja Saktu:

Inclusion Criteria	Exclusion Criteria
➤ Patients of either gender in between 18-60 years of age.	Patients suffering from systemic diseases which intervenes the course of treatment.
➤ Patients presenting with <i>lakshanas</i> of <i>Vataja Pratishyaya</i> .	
➤ Patients presenting with signs and symptoms of Allergic rhinitis.	
➤ Patients fit for <i>dhoomapana</i> .	

The laja collected were mildly heated in a vessel and then coarsely powdered. Thus the obtained *laja saktu* were kept in an air tight container.

Method of Preparation of Dhooma Yantra:

A mud pot with suitable lid made out of mud was selected. A hole is made in the centre of the lid. To this hole, *dhooma netra* of 10 *angulas* is fitted and properly sealed.

INTERVENTION

40 patients of *Vataja Pratishyaya* were randomly selected and divided into 2 groups, Group A and Group B.

Group A:

The patients of Group A were subjected to-

- *Laja Saktu Ghrita dhoomapana* for seven days. *Dhoomapana* was done once in a day during day time.
- Internally, *Vyoshadivataka* pills of 4grams thrice daily with warm water, before food was given for 15 days.

Group B:

The patients of Group B were subjected to-

- Internally, *Vyoshadivataka* pills of 4grams thrice daily with warm water, before food was given for 15 days.

Assessment Criteria:

The clinical findings were noted in specially prepared case proforma before treatment (BT), during the treatment ie.8th day (DT), after the treatment ie. 16thday (AT) and at follow up ie. on 23rd day (FU).

The parameters considered for the study were graded and scoring pattern from 0-3 was adopted for the purpose of statistical analysis.

Parameters:

- Sneezing
- Nasal obstruction
- Nasal Discharge
- Itching

Table 3: Gradation Index

SCORES		0	1	2	3
SI. NO.	GRADES	NIL	MILD	MODERATE	SEVERE
1.	Sneezing	No sneezes	1-10 sneezing at a time	11-20 sneezing at a time	>20 Sneezing at a time
2.	Nasal obstruction	No obstruction	Inhalation and exhalation with effort	Inhalation and exhalation to be assisted with mouth breathing	Complete block with mouth breathing
3.	Nasal discharge	No discharge	Mild discharge which doesn't need mopping	Moderate discharge which needs occasional mopping	Profuse discharge which needs continuous mopping
4.	Itching	No itching	Itching in nose	Itching in nose and eyes	Itching in nose, eyes and palate

OBSERVATIONS

Number of patients registered for the study-40
 Number of patients completed the study-40

The observations recorded on demographic data, type of allergic rhinitis, *jarana shakti*, *nidana* and *lakshanas* of *vataja pratishyaya*.

Table 4: Observations

Parameter	Category	Value	%
Age	20-40 yrs	28	70%
Sex	Female	22	55%
Religion	Hindu	36	90%
Marital status	Married	32	80%
Occupation	Homemaker	14	35%
Education	Graduate	16	40%
Socio economic status	Middle class	26	65%
Familyhistory	Positive	20	50%

Nature of work	Moderate	27	67.5%
Diet	Mixed	25	62.5%
Sleep	Disturbed	23	57.5%
Addiction	Tea/coffee	11	27.5%
Chronicity	0≤2 yrs	27	67.5%
Jaranashakti	Avara	21	52.5%
Type of allergic rhinitis	Perennial	22	55%
Nidana	Vishamashana	27	67.5%
	Raja nishevana	40	100%
Anubandha lakshana	Kasa	14	35%
Signs of allergic rhinitis	Allergic shiners	40	100%
	Pale nasal mucosa	40	100%
	Hypertrophied turbinate	40	100%

RESULTS

TABLE 5: RESULTS ON ASSESSMENT PARAMETERS BETWEEN GROUP A & GROUP B

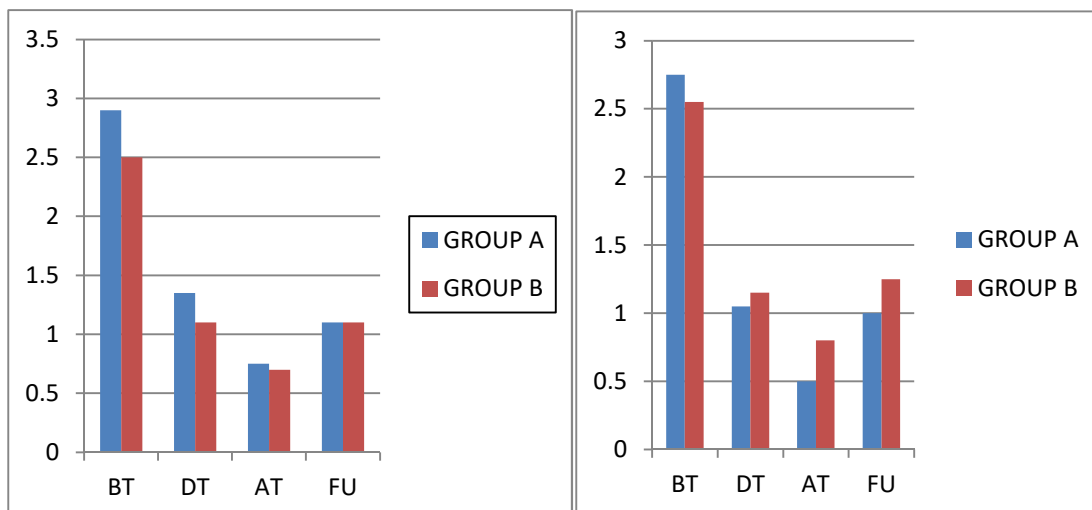
Parameter	BT/AT	Group	Mean	SD	SE	PSE	t'value	p value	Remarks
Sneezing	BT	A	2.9	0.30	0.06	0.13	2.626	<0.05	S
		B	2.55	0.51	0.11				
	AT	A	0.75	0.63	0.14	0.17	0.28	>0.05	NS
		B	0.7	0.47	0.10				
Nasal obstruction	BT	A	2.75	0.44	0.09	0.15	1.321	>0.05	NS
		B	2.55	0.51	0.11				
	AT	A	0.5	0.60	0.13	0.17	1.67	>0.05	NS
		B	0.8	0.52	0.11				
Nasal discharge	BT	A	2.65	0.48	0.10	0.15	0.32	>0.05	NS
		B	2.7	0.47	0.10				
	AT	A	0.35	0.48	0.10	0.18	1.06	>0.05	NS
		B	0.55	0.68	0.15				
Itching	BT	A	2.65	0.489	0.109	0.15	0.63	>0.05	NS
		B	2.55	0.510	0.114				
	AT	A	0.65	0.671	0.150	0.18	1.92	>0.05	NS
		B	1	0.459	0.103				

The effect of treatment was statistically assessed by Unpaired and Paired student's t –test. In both the groups, within the group analysis shows that the effect of treatment was statistically highly significant during the treatment and after the treatment on all the parameters. Though both the groups showed significant changes after treatment, within the group analysis

however on comparing t – values it can be inferred that Group A has showed better result when compared to Group B. At the follow up, statistically significant changes were observed between the groups on Nasal discharge and itching indicating the long standing and the added effect of *dhoomapana* in Group A is better than Group B.

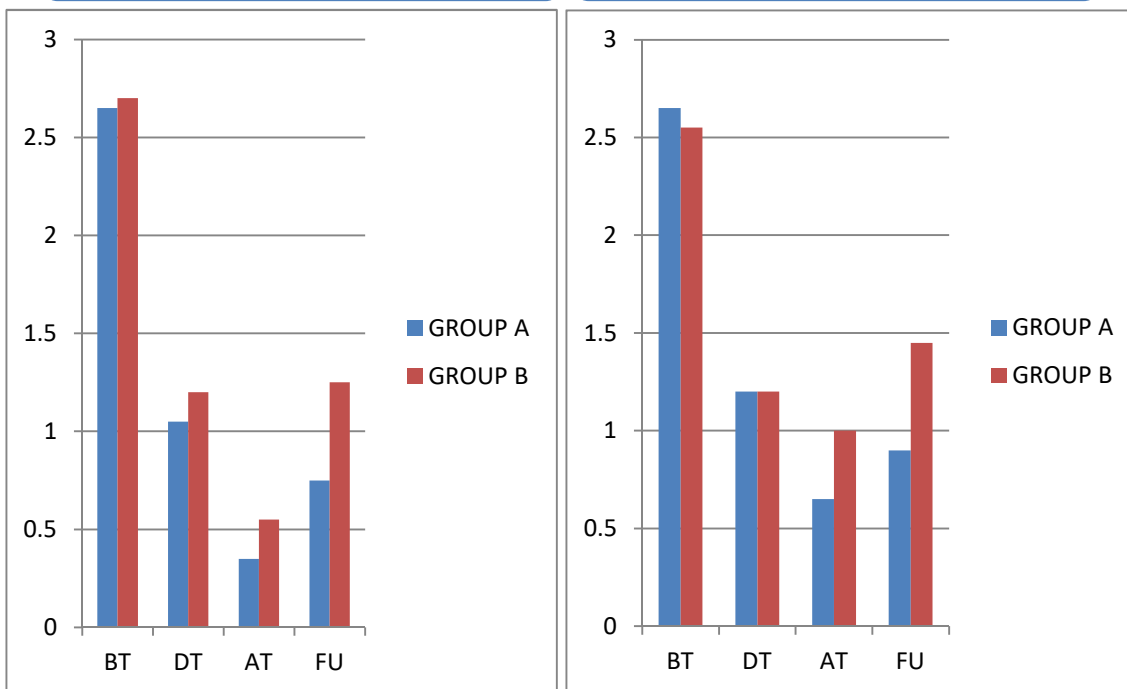
GRAPH:1 EFFECT OF TREATMENT ON SNEEZING

GRAPH:2 EFFECT OF TREATMENT ON NASAL OBSTRUCTION



GRAPH:3 EFFECT OF TREATMENT ON NASAL DISCHARGE

GRAPH:4 EFFECT OF TREATMENT ON ITCHING



DISCUSSION

DISCUSSION ON FORMULATION-VYOSHADI VATAKA^{5,6,7,8}:

Majority of the drugs of vyoshadi vataka have *katu rasa, teekshna guna, ushna veerya, deepana, pachana, rucya* and *kapha vatahara karma*. By virtue of the properties like *deepana, amapachana, srotoshodhana, grahi, rasayana, balya, kaphahara, shothahara* and

vatanulomana, the ingredients of *vyoshadi vataka* accomplish the *samprapti vighatana* of *vataja pratishyaya*. On the modern parlance it can be concluded that *vyoshadi vataka* acts by Antiallergic & Mast cell stabilizing property, Antiinflammatory action, Anti-toxic effect and Immuno modulatory action.

DISCUSSION ON DHOOMAPANA DRAVYA⁹

Laja possess *rooksha*, *laghu guna*, *kapha hara*, and *balya* property. The *sarpi* is *pitta anila hara* and due to its *snaihika guna* counteract the *rookshata* of *laja*. Owing to the properties like *balya*, *ojovardhka* and *rasayana ghrita* enhances the *vyadhikshamatwa*. Hence altogether the *dhoomapana dravya* imparts *tri-doshahara karma* and improves the *vyadhikshamatwa*. *Laja* possess anti-inflammatory, immunomodulatory, antioxidant activity. 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 lipid¹⁰. It increases the potency of *laja* by carrying the active components to the interior of the cells. It acts as a carrier of active components to be absorbed across the cell membrane.

DISCUSSION ON *DHOOMAPANA*^{11, 12}

Dhoomapana or inhalation of medicated smoke has been specially employed for diseases of *Kapha-Vata dosha* origin pertaining to *urdhvajatru*. It is defined as the process by which the medicated *Dhooma* taking either through *mukha* or *nasa* and releasing it through the *mukha*. It is a simple, economical, but very effective treatment as it imparts its effect by local and systemic absorption of drug. On combustion the medicinal herbs form solid particles of very fine size which are suspended in the smoke & when inhaled reach the site of derangement & act therapeutically. *Dhoomapana* being one of the treatment modalities utilizing the nasal route of drug administration offer higher bioavailability and rapid absorption of drugs, fast onset of therapeutic action and easy accessibility to blood capillaries due to high vascularity, large surface area and highly permeable structure of the nasal mucosa. Altogether due to the *karmukata* of *dhoomapana* and the *dravyas* used for *dhoomapana*, *Vataja Pratishyaya* reduces by the *kaphahara*, *vatanulomana* and *srotoshodhana karma*.

CONCLUSION

Vyoshadi vataka is an excellent formulation having *deepana*, *amapachana*, *Srotoshodhana*, *kaphahara*, *Vatanulomana*, *Shothahara*, *Grahi*, *Rasayana* and *balya* properties indicated under *pratishyaya*

prakarana. *Dhoomapana* offer higher bioavailability and rapid absorption of drugs, fast onset of therapeutic action and easy accessibility to blood capillaries by increasing nasal blood flow, decreasing mucus viscosity. The low molecular weight of *dhoomapana* drugs, increases contact time between the drug and the epithelial tissue. *Dhoomapana* and *Vyoshadi vataka* are the effective treatment options that can be adopted in the *pratishyaya* where *vata* and *kapha* are the dominant *doshas*.

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FIGURE 1: AFTER ADDING CHOORNAS TO *GUDAPAKA*



FIGURE 2 AFTER ROLLING INTO PILLS



FIGURE 3 *DHOOMA YANTRA*



FIGURE 4 ADMINISTRATION OF *DHOOMAPANA*

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