

CONCEPTUAL ANALYSIS OF PRATIMARSHA NASYA & DHOOMPANA FOR THE PREVENTION OF AERO-ALLERGENS BORNE DISORDERS

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INTRODUCTION

The present era of urbanization and industrialization has exposed the human body to an impulsive quantity of ambient air pollution as a result prevalence of allergic diseases is increasing worldwide. Approximately 10-30% of adults and 40% of children are affected globally by allergic rhinitis.^[1] The global burden of disease study reports a prevalence of 251 million cases of COPD globally in 2016 alone.^[2] Asthma affects as many as 339 million people^[3] it is estimated that 134 million Indians suffer from chronic sinusitis, 1 in 8 Indian suffers from chronic sinusitis.^[4] Studies have proven the association between diseases like allergic rhinitis, sinusitis, chronic cough allergic

cough, and asthma. Since the number of patients facing these disorders is increasing day by day therefore along with the measures of pollution control there is a necessity for a complementary approach that could prevent and curb the occurrences of these disorders. *Ayurveda* gives first preference to retain the health status of a healthy individual, it is a lifestyle discipline emphasizes *Dincharya* and *Ritucharya Palana* which include daily to do easy procedures which in the long run keep diseases at bay, two such modalities are *Pratimarsha Nasya* and *Dhoompana* which are proficient and potent enough to curb the occurrence of respiratory infections.

Correlation between allergic diseases

In various observational studies, it was concluded that the subjects who were initially diagnosed with allergic rhinitis and other nasal allergies developed asthma gradually.

- 50% of patients with asthma alone developed rhinitis.

- 70-90% of patients with asthma have concomitant rhinitis;
- 40-50% of patients with allergic rhinitis have concomitant allergic asthma.

Newly coined diseases have been introduced such as 'United Airways Disease', 'Combined Allergic Rhinitis and Asthma Syndrome' and 'Allergic Rhino-bronchitis'.^[5]

Studies have also drawn inferences that a temporal relationship exists between the onset of rhinitis and asthma and that rhinitis usually precedes asthma. Patients of allergic rhinitis who did not have any evidence of asthma exhibited nonspecific bronchial hyperresponsiveness.^[6] Chronic cough is associated with the presence of asthma and allergic rhinitis.^[7] Patients suffering from allergic rhinitis exhibit oedematous nasal mucosa disrupted nasal cilia, and excess production of secretions, and all these, in turn, lead to a blockage of ostial drainage from the sinuses. This blockage results in stagnant debris that then becomes infected resulting in sinusitis.^[8]

Symptomatology and commonness of the airways

Increased fuel combustion may initially lead to allergic sensitization and airway responsiveness to allergens.^[9] In a sensitized individual, IgE binding takes place with the mast cells and circulating basophils triggering the release of histamine, leukotrienes, etc.

Ensuing nasal symptoms as itching, burning sensation, sneezing, rhinorrhoea, nasal obstruction.

Whereas the lower airways exhibit immediate symptoms of bronchoconstriction and hypersecretion of mucus leading to cough, breathlessness, tightness in the chest, and wheezing. In asthmatics causes non-specific bronchial hyperresponsiveness is observed and bronchial challenge testing in subjects with rhinitis has shown asthmatic response manifested by the inflammatory cells and pro-inflammatory mediators.

This suggests that the upper and lower airway may be considered as a unique entity influenced by a common, evolving inflammatory process, which may be sustained and amplified by interconnected mechanisms.

Ayurvedic review

Sinusitis, allergic rhinitis, common cold and cough, asthma, chronic cough these disorders can be broadly compared to *Nasa Pratinaha*, *Pratishyaya*, *Shwasa*, *Hikka*, and *Kasa* mentioned in *Ayurveda* classics, these disorders also have similar *Hetus* which are:

1. *Raja*
2. *Dhooma*^[10]
3. *Pratishyaya* (for *Kasa* and *Hikka*)^[11]

It is well established that these *Rogas* share the same *Samprapti* of *Vata-Kapha Prakopa* with *Prana* and *Udana Vayu Dushti* symptomatology produced also coincides with *Poorvaroopas* & *Lakshanas* mentioned in *Nasa Rogas* and *Roopa* produced by the systemic counterparts as stated in the table below.

Table 1: Roga lakshana.

S. no.	Nasa Roga		Pranavaha Sroto-Dushti Roga	
1.	<i>Kshvathu</i>	<i>Vayu</i> followed by <i>Kapha</i> comes out with sound repeatedly, <i>Ghranashrita Marma Dushti</i> . ^[12]	<i>Hikka</i>	Astringent taste in mouth, restlessness, heaviness in throat and chest, and distension of abdomen. ^[18]
2.	<i>Dipta</i>	Severe burning sensation in nose and <i>Vayu</i> comes out like fume. ^[13]	<i>Shwasa</i>	Vitiated <i>Prana Vayu</i> joins with <i>Kapha</i> , moves upwards, and causes breathlessness. ^[19]
3.	<i>Nasa Pratinaha</i>	Aggravated <i>Udana Vayu</i> covered with <i>Kapha</i> stays in its passage and creates obstruction in the nose. ^[14]	<i>Kasa</i>	Vitiated <i>Prana</i> associated with <i>Udana</i> gets out of the mouth with force and in an abnormal way producing a sound like that of a cracked utensil of bell metal. ^[20]
4.	<i>Nasaparisrava</i>	The nose continuously passes clear, watery discharge and without discoloration. ^[15]		
5.	<i>Nasaparisosa</i>	<i>Kapha</i> situated in the nose is dried excessively by <i>Vayu</i> and <i>Pitta</i> due to which the patient breathes with difficulty. ^[16]		
6.	<i>Pratishyaya</i>	Heaviness in head Appearance of sneezing Body ache Horripilation. ^[17]		

Utilities of *pratimarsha nasya*

Acharya Sushruta considers *Pratimarsha Nasya* as a type of *Snehana Nasya*.^[21] Its *Matra* is *Dwibindu* & has the following qualities:

- *Chirkari Karma*
- *Shamana* of *Urdhvajatrugat Rogas*.^[22] and *Brighana Karma*
- No *Updrava*
- No *Parihara* and can be used throughout life.
- It comprises of *Sneha* hence does the *Aplavana* of *Shringataka Marma* proving its oleation and emollient property.^[23]

Vagbhatta has prescribed 15 *Kalas* for *Pratimarshaya Nasya* out of which 3 *Kalas* have the benefit of *Srotoshuddhi* and 1 *Kala* has the benefit of *Vata Shanti*.^[24]

- Pratah Kala- Srotoshuddhi, Sharir Laghuta, Man Prasannta*
- Bhojana uprant – Sroto shuddhi, Sharir Laghuta, Mana Prasannta*
- Atayant Hasan Uprant – Vayu Shanti*
- Dinante – Sroto shuddhi, Sukh Nidra Dayaka*

The *Pratimarsha Nasya* administered before going out in an exposed environment maintains the *Klinnata* of *Nasa Srotasa* protecting the *Badha* due to *Raja* and *Dhooma*.^[25]

Acharya Charaka and Vagbhatta suggest *Anu Taila* for *Pratimarsha Nasya*, While Acharya Bhava Mishra has suggested the use of *Katu Taila*.

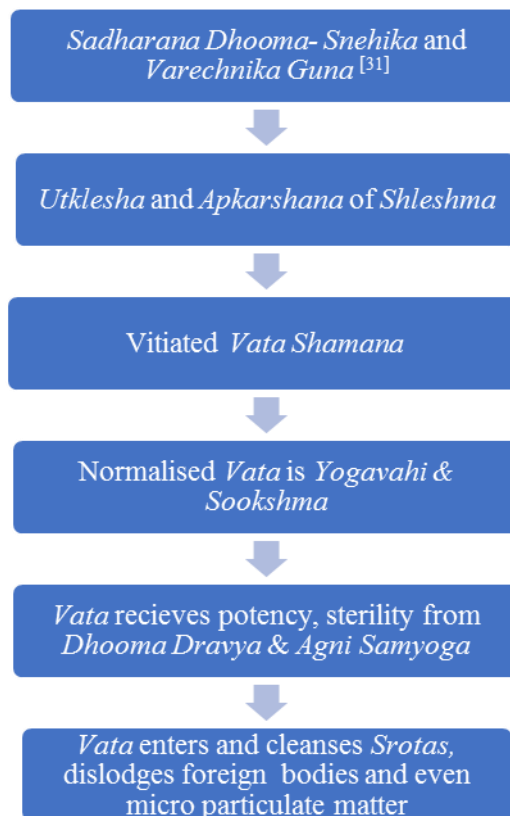
Mode of Action – *Pratimarsha Nasya*



Utilities of *dhoompana*

- *Dhoompana* is indicated for *Vata Shleshma Nirharana*.^[26]
- It is also capable of *Shamana* of *Rogas* like *Kasa*, *Hikka*, and *Shwasa*.^[27]
- It also gives *Bala* to *Indriyas*.^[28]
- If done in a *Samyaka* manner it does *Shodhana* of *Hridaya*, *Kantha*, *Gyanendriya Sanshuddhi* and produce *Laghuta* in *Shira*.^[29]
- *Supeeta Lakshanas* of *Dhoompana* includes *Laghuta* in *Urah Pradesh*, *Kantha*, *Shira*.^[30]

Mode of action - *Dhoompana*



Roga specific *dhoompana dravya*

Hikka & Shwasa - *Haridra*, *Eranda-patra*, *Laksha*, *Manahshila*, *Devdara*, *Mansi*, *Ghritha*, *guggulu*, *Madhuchhishta*, *Shallaki*, *Kusha*, *Shyonaka*.^[32]

Kasa - *Manasila*, *Hartala*, *Mulethi*, *Jatamansi*, *Nagarmotha*, *Ingudiphala*.^[33]

Dhoompana Nirdesh is given in *Nasaroga*^[34] in general and specifically in disorders such as *Apinasa*,^[35] *Kshvathu*,^[36] in *Nasa Srava Dhoompana* with *Chitraka* and *Devdaru*^[37] is advised wherein *Nasanaha* and *Nasasosa* the *Snehika Dhooma* is advised.^[38]

Both *Pratimarsha Nasya* and *Dhoompana* can be considered as types of ayurvedic inhalation therapies that deliver the medicines directly in the airways providing potent protection to the localized regions.

CONCLUSION

All the above mentioned *Roga* sharing the same *Nidana* and *Samprapti* can be treated with similar *Chikitsa Upkrama*. While *Pratimarsha Nasya* when used regularly helps in trapping the aeroallergens at the surface due to proper oleation and enhancing the guarding function of cilia, *Dhoompana* helps in the expulsion of those allergens by its *Shodhana* action, since *Vata* is *Yogavahi* it enters the associated structures and *Marmas*, purifying the *Srotas* thus propelling out the allergens. Hence it can be said that these procedures alone and/or *Viharas* including measures of pollution control and use of masks if required can prevent aero-allergen borne disorders.

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