A CLINICAL STUDY ON THE EFFECT OF SHUNTHI GUD AVAPEEDA NASYA IN KAPHAJA PRATISHAYYA W.S.R. TO CHRONIC RHINITIS

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ABSTRACT

Kaphaja Pratishayya is a condition in which vitiated Vata and Kapha Dosha causes Nasa Avarodha associated with either Snigdha Kapha Sruti (sticky nasal discharge), Nasa Kandu (Itching sensation in the nose) and Gandha and Rasa Ajmanatha (loss of smell and taste) with some of the clinical features of Vatakaphaja Pratishayya. Nasya Karma is the special line of treatment for Urdhvaajatragata Vikara. Shunthi Gad Avapeedana Nasya which is prepared with Kaphavatihara and Shirovirechana drugs is being used for Nasya Karma in Kaphaja Pratishayya. Patients presenting with the classical features of Kaphaja Pratishayya and between the age group of 7yrs and 80yrs irrespective of sex were selected. 50 patients were selected and assigned in a single group. Avapeeda Nasya was administered for 7 days, once in the morning between 7am to 8am on an empty stomach. The treatment provided statistically significant result on the signs and symptoms of Kaphaja Pratishayya (Chronic simple rhinitis). The treatment Shunti Gad Avapeeda Nasya Karma provided marked improvement in 18% of the patients and 82% of the patients showed moderate improvement. The drugs Shunthi and Gud, possess Kaphavatihara and Tridosahara properties, which play an important role in pacifying doshas, participating in the pathogenesis of the disease Kaphaja Pratishayya. This immune-modulation reduces the inflammatory process in nasal cavity and sinuses. The local irritation caused by the drug is helpful to liquify the purulent sputum and ultimately expelled.

KEYWORDS: Avapeeda Nasya, Chronic Rhinitis, Kaphaja Pratishayya.

INTRODUCTION

Pratishayya is a complex disease involving several symptoms and diversified pathogenesis. It is a nuisance to the affected irrespective of age and sex. A lot of modern disease entities can be included under the heading of Pratishayya. Unless it is not managed properly, can lead to several complications, which may be life threatening or crippling in future. Pratishayya although a mild disease, it can make patients externally uncomfortable and can interfere with the routine activities. Pratishayya is an IgE mediated hypersensitivity disease of mucous membranes of the nasal airways. It is a chronic disabling disorder affecting at least over 10% of the population. It is especially disturbing to notice that the spread of the disease is on a steady rise in recent years. This can be a consequence of urbanization, industrialization and subsequent pollution.

A simple common cold or Pratishayya affects most of the population. Probably very few people have been left untouched by these annoying disorders. However, if this is neglected for a longer period, it may lead to more serious problem like Sinusitis, Bronchitis or such other Upper respiratory tract infection. Even in Ayurveda it is said that Pratishayya let it be Ekadosha or Bahudoshaja, if not treated properly may lead to Dushta Pratishayya and later Kasa, or even Kshaya. It is well known for its recurrence and chronic appearance. Recurrence of the disease occurs because the Doshas have not been evacuated completely. Such Doshas reside in their latent stage (predisposing stage) and give rise to the same disease when factors (aggravating factors) are favorable. Even some times the Pratishayya appears as a Ritu and Kapha sambhandha Vyadh.

Chronic Rhinitis is a major problem in the society. The magnitude of the condition can be understood by the fact that, though it is known from the ancient era and in spite of worldwide efforts to combat this impediment, still there is no definite solution for the problem. As this disease is a chronic problem and characterized by recurrent exacerbations and complications, it makes the patient very much in trouble. The complaints like headache, sneezing, heaviness in head, results in reduced
working capacity of the person. Later on the complications, like nasopharyngitis, pharyngitis, sinusitis, tonsillitis, acute otitis media etc. may occur.

Kaphaja Pratishyaya (Chronic Rhinitis) is recurring frequently and attending the chronic stage, as per the Charaka for which Nasya is the line of treatment. Nasya is the chief procedure to drain Doshas from Shiras. Ayurveda offers scope in the form of Avapeeda Nasya, which is explained as a procedure for resisting such disorders. So Nasya was selected as the chief Shodhana procedure and one indigenous drug compound was also included. Avapeeda Nasya is the Nasya consisting of the Swaras of a drug administered through nasal passage.

Generally the people desire to get relief of their trouble in a minimum period. Though a number of medicines are available in every system of medicine for curing a single disease, still always challenges exists for an effective and safe drug. As a result of such an exploration, the present preliminary research study is planned to know about the effect of the classical drug compound Shunthi Gud Avapeeda Nasya by administering it to patients suffering from Kaphaja Pratishyaya.

Many of the modern remedies in this regard are probably effective but on chronic usage cause dependence, side effects and poor performance in the prescribed dosage. After studying its prevalence worldwide; this disease has been selected with following objectives.

1. To study in detail the aetiopathogenesis and prevalence of Kaphaja Pratishyaya as per diagnostic parameters of Ayurvedic & modern medical literature.
2. To evaluate the effect of Shunthi Gud Avapeeda Nasya as Shodhan Nasya in Kaphaja Pratishyaya w.s.r. to Chronic Rhinitis.

Source of Data
The patients attending the OPD & IPD of Patanjali Bhartiya Ayurvigyan Avum Anusandhan Sansthan, Haridwar, Uttarakhand were selected for research study.

Inclusion criteria
1. Patients between the age group of 7-80 years of sex, occupation, religion and socio economic status.
2. Patients suffering from signs and symptoms of Kaphaja Pratishyaya (Chronic Rhinitis)
3. Patients fit for Nasya.
4. Patients willing to give written informed consent.

Exclusion criteria
1. Patients below 7 years and above 80 years.
2. Other than Kaphaja Pratishyaya (Vata, Pitta, Rakta, Sannipata)
3. Patients suffering from Chronic Simple Rhinitis associated with tonsillitis, adenoids etc.
4. Gross DNS
5. Nasa Arsha (Nasal Polyp)
6. Nasa Arbud (Nasal neoplastic growth)
7. Patients with other systemic disorders like TB, HIV, Retro positive diabetes, hypertension and thyroid.

Criteria for selection of drug
Shunthi Gud Avapeeda Nasya
In this study Shunthi and Gud are used for the clinical trial. (Sharangadhar Samhita Uttar khand 8/18).

This compound drug has been selected for the trial due to the following reasons
- All the ingredients are herbal and easily available.
- Ingredients of this compound are having Vatakaphahara, Srotoshodhana, Shothahara, Vatanulomana, Lekhana, Kaphaghna and Jantughna properties.
- Anti-inflammatory, Antibacterial, Anti-oxidants, Analgesics and Immuno-modulatory properties.
- Keeping all the above points in mind the Shunthi Gud Avapeeda Nasya was selected to explore its effect in treating Kaphaja Pratishyaya (Chronic Rhinitis).

Method of preparation of Shunthi Gud
Shunthi and Gud were taken in equal quantity. Dried well and Shunthi was finely powdered separately and mixed thoroughly altogether and preserved.

Method of preparation of Shunthi Gud Avapeeda Nasya
All the drugs were taken in equal quantity sufficient for administration of 4/6/8 drops in each nostril for one patient at a time. Kaika was prepared and was squeezed through a piece of muslin cloth and the Swaras thus obtained was filled in a dropper and was administered as Nasya. Swaras was freshly prepared on each day of Nasya.

Collection and authentication of drugs
The raw drugs were collected / purchased from Divya pharmacy store of Patanjali Bhartiya Ayurvigyan Avum Anusandhan Sansthan, Haridwar, Uttarakhand. The identity of the drugs was confirmed by the HOD of Dravyaguna department of the Patanjali Institute. These drugs were compared with voucher specimen and available literature in institute.

Diagnostic criteria
An elaborate patient case format incorporating the points of history taking and physical examination was prepared. It mainly emphasized on signs and symptoms of Kaphaja Pratishyaya (Chronic Rhinitis). Routine laboratory investigation (Hb%, TLC, DLC, ESR), A.E.C. examination was made to rule out other pathological conditions. Radiological investigation X-ray PNS was done for confirmation of the diagnosis.

- Mucoed / mucopurulent nasal discharge
- Nasal blockage
- Post nasal blockage
**History of present illness**
- Nature of discharge
- Consistency of discharge
- Quantity of discharge
- Duration of discharge
- Itching
- Nasal blockage
- Discomfort in nose
- Epitaxis

**Examination of Nose**
1) Inspection: External nose/Tip/ Bridge etc.
2) Anterior Rhinoscopy
   - Lower & ant, Part of septum
   - Anterior Part of inferior & middle turbinate
   - Floor of the nose
   - Mucosa: Pink/Pale/Red/Normal
   - Septum
3) Obstruction of nose/ Nasal Patency

**Research Design**
It is a randomized, open labeled, observational clinical study. Patients were assigned in single group excluding dropouts with pre, mid and post test study.

**Total no of patients: 50 patients receives Shunthi Gud Avapeeda Nasya**

**Dose:** 4/6/8 drops in each nostrils (According to Rogi & Roga bala)

**Time:** Once in a day every morning (7 AM to 8 AM) on an empty stomach for 7 days

**Criteria for assessment**
To assess the effect of Shunthi Gud Avapeeda Nasya, subjectively and objectively the following classical criteria were taken.

1. **Nasal obstruction**
   - 0 - No obstruction/occasional
   - 1 – Partially occasional & unilateral
   - 2 – Partially occasional & bilateral
   - 3 – Complete, frequently & unilateral
   - 4 – Always complete & bilateral

2. **Nasal discharge**
   - 0 - No discharge
   - 1 – Occasional discharge
   - 2 – Scanty Intermittent discharge
   - 3 – Recurrent discharge
   - 4 – Profuse muco-purulent discharge

3. **Itching sensation**
   - 0 – No itching
   - 1 – Mild itching
   - 2 – Moderate itching
   - 3 – Severe itching
   - 4 – Severe intolerable itching through the day

4. **Smell perception**
   - 0 – Normal
   - 1 – Occasional loss of sense
   - 2 – Partial loss of sense
   - 3 – Complete loss of sense

5. **Headache (Shirashula)**
   - 0 – No
   - 1 – Occasional
   - 2 – Intermittent
   - 3 – Continuous
   - 4 – Intolerable

6. **Post Nasal discharge**
   - 0 – Not present
   - 1 – Occasional present
   - 2 – Frequent discharge
   - 3 – Continuous discharge
   - 4 – Continuous heavy discharge

**Objective criteria**
1. **Spatula Test**
   - 0 – Patent (RT & LT bilateral)
   - 1 – Partial block (RT & LT unilateral)
   - 2 – Complete block (RT & LT bilateral)

2. **Anterior Rhinoscopic Findings (Color of mucosa)**
   - 0 – Pink
   - 1 – Red
   - 2 – Cherry Red/Blue

**OBSERVATIONS AND RESULTS**
Maximum 68% patients belong to the age group between 21-40 years, 56% patients were male and 44% were female, 52% was married, 60% were students, 10% each were doing business, 20% patients were Housewives and 10% patients were doing service. 50% patients were graduated. 52% were of upper-middle class, 32% patients were taking vegetarian diet. 46% patients were having good appetite. 64% was having regular bowel habit. 78% was having sound sleep. 28% were doing regular exercise, 40% patients were addicted to cold drink, 60% were having Vishamagni, 58% patients were having Madhyam Kostha. 52% had habit of hot water bathing and 48% patients had bath with cold water. 34% had tensile nature, 52% patients were doing moderate type of work. Vataipittaj Prakriti patients were 36%, Vatakaphaj prakriti patients were 28% and Pittakaphaj Prakriti patients were 36%. Majority of patients 72% were having Rajasika prakriti and 28% patients were having Tamasika Prakriti.

54% had bilateral Nasal obstruction & 52% had intermittent nasal obstruction. 84% patients had nasal obstructions at night. 40% had mucoid discharge. 54% had purulent discharge. 56% had profused quantity of
discharge. 62% had foul smell in discharge. Patients with chronic simple rhinitis had usually swollen turbinates, DNS or hypertrophied turbinates with mucoid to mucopurulent discharge which often trickles to the throat as post nasal discharge and the patient tries to clear the throat on and off. 60% had moderate coughing, while it was absent in 12% of patients. Itching was present in 45 patients. Headache was present in 42 patients. 50% had half side headache, 59.52% had moderate headache, 73.81% had intermittent headache. 60% had pink nasal mucosa while 26% of patients had pale nasal mucosa. Deviated Nasal septum was absent in 46% of patients, while it was present in 54% of patients. 56% had ethmoid sinusitis, while 22% had maxillary sinusitis.

Data Related to disease
Prodomal Symptoms - Shirogurutwa was present in 90% of patients; Kshavatuh was present in 32%, Angamarda in 68%, Parihrishtaromata 34% and Stambha in 70% patients.

Presenting complaints - Nasal obstruction and nasal discharge were present in 100% patients followed by itching in 92% patients, heaviness of head in 84%, post nasal discharge in 82% and smell perception in 70%.

Spatula Test - Maximum number of patients i.e. 66% had Grade II positive spatula test.

Anterior Rhinoscopic findings - 70% patients had deviated nasal septum (DNS) and 52% had bilateral hypertrophied turbinated. 96% patients had a narrow nasal passage. Mucoid nasal discharge was present in 82% of patients.

Relief Percentage

<table>
<thead>
<tr>
<th>Symptoms &amp; Test Findings</th>
<th>Symptom Score BT</th>
<th>Symptom Score AT</th>
<th>Relief %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal obstruction</td>
<td>129</td>
<td>41</td>
<td>68.21</td>
</tr>
<tr>
<td>Nasal discharge</td>
<td>134</td>
<td>49</td>
<td>63.43</td>
</tr>
<tr>
<td>Itching</td>
<td>117</td>
<td>36</td>
<td>69.23</td>
</tr>
<tr>
<td>Heaviness of head</td>
<td>111</td>
<td>35</td>
<td>68.46</td>
</tr>
<tr>
<td>Post nasal discharge</td>
<td>98</td>
<td>41</td>
<td>58.16</td>
</tr>
<tr>
<td>Smell perception</td>
<td>65</td>
<td>29</td>
<td>55.38</td>
</tr>
<tr>
<td>Spatula test</td>
<td>107</td>
<td>30</td>
<td>71.96</td>
</tr>
<tr>
<td>Anterior Rhinoscopic findings</td>
<td>38</td>
<td>9</td>
<td>76.31</td>
</tr>
</tbody>
</table>

The relief percentage in individual symptoms of Kaphaja Pratishyaya revealed a better therapeutic efficacy of Shunti Gud Avapeeda Nasya Karma.

Statistical Results: The total effect of therapy on symptoms of each patient was evaluated before and after completion of the treatment. The initial mean score of 50 patients for Nasal obstruction was 2.58 which were reduced to 0.82 after treatment. The total effect of treatment provided statistical significant (P<0.001) result with ‘t’ value of 11.69. In symptom Nasal discharge, the mean before treatment was 2.68 which was reduced to 0.98, exhibiting highly significant (P<0.001) improvement with ‘t’ value of 12.16. In symptom Itching, the mean before treatment was 2.60 which was reduced to 0.80, exhibiting highly significant (P<0.001) improvement with ‘t’ value of 12.99. In symptom Heaviness of head, the mean before treatment was 2.64 which was reduced to 0.83, exhibiting highly significant (P<0.001) improvement with ‘t’ value of 12.61. In Post nasal discharge, the mean before treatment was 2.39 which was reduced to 1.0 after treatment. The total effect of treatment provided statistical significant (P<0.001) result with ‘t’ value of 9.99. The initial mean score for post nasal discharge was 1.76 which were reduced to 0.78 after treatment. The treatment provided statistical significant (P<0.001) result with ‘t’ value of 7.09 after completion of the treatment.

Effect of Therapy on Test Findings: The initial mean score of 50 patients for spatula test was 2.14 which were reduced to 0.6 after treatment. The total effect of treatment provided statistical significant (P<0.001) result with ‘t’ value of 11.76. The initial mean score for anterior Rhinoscopic findings, the mean before treatment was 0.76 which was reduced to 0.18, exhibiting highly significant (P<0.001) improvement with ‘t’ value of 5.04.

Assessment of Overall effect of Therapy: The treatment Shunti Gud Avapeeda Nasya Karma provided marked improvement in 18% of the patients and 82% of the patients showed moderate improvement. No patient got complete remission and no patient was found unchanged/no response and mild improvement.

DISCUSSION ON PROCEDURE
Purva Karma: Abhyanga with Tila Taila in Urdhvanga was done followed by Bashpasveda. During Svedana eyes were covered with cotton. Abhyanga causes Mriduta of Doshas and Svedana causes Vilayana (Liquification) of accumulated Doshas. According to Modern science due to Abhyanga blood circulation increases. Svedana shows effect by two ways- Due to Svedana the collected mucous liquefies. It also causes vasodilatation. Due to vasodilatation permeability of blood vessels increases. Thus it also makes faster the drug absorption. Proteins like Kinins, Prostaglandins, etc. in
the blood enter into the interstitial fluid as the permeability of blood vessels increase; and local immunity increases due to these proteins.

**Pradhana Karma:** In pradhana karma, the Avapeedana Nasya (Svarasa) is administered into the nostrils in head low position of the patient. The Sakshma Anu Dravyas reaches the Sringataka Marma and from there to different Siras and it also spreads to other parts like eyes, ears, throat, etc. and bring out the morbid Doshas which helps in Srot sluuddhi and makes the Analoma Guti of Vata and Kapha which is vitiated in Kaphaja Pratishhaya. The drug which was administered causes the irritation of local nerves and also stimulation of the parasympathetic nerves. Parasympathetic nerves also secretes acetylcholine and increases the nasal gland secretions. Increased nasal gland secretion regulates the movements of cilia and helps in expulsion of the mucous and other collected matters from the nasal cavity and increases local immunity and helps to cure the disease.

**Paschat Karma:** In Paschat Karma of Avapedana nasya, Mrudu Abhyanga, Dhoompana and Kavala is done. Mrudu Abhyanga and Sveda soon after administration of the medicine helps to relieve the irritation which is caused by Teekshanata of the Dravyas.

**Probable mode of action of drugs**
The drug Shunti has Katu Rasa, Laghu, Snigdha Guna, Ushna Virya, Madhur Vipaka and Kaphavata shamaka properties. The Gud has Madhura Rasa, Natishita, Snigdha Guna, Ushna Virya, Madhur Vipaka and Tridoshashamaka properties. The compound drugs contain Katu, Madhura Rasa, Laghu, Snigdha Guna, Ushna Virya, Madhur Vipaka and Tridoshashamaka (especially Kapha Vata) properties. These drugs produce Draveekarana (liquification) and Chedana (expulsion) of the vitiated Doshas there by relieving the features of the disease. All the ingredients are herbal and easily available. The post operative procedures like Dhumpana acts as Sleshmahara, Sravahara.

As per the above classical description of the drugs, it can be inferred that Shunti Gud Avapeeda Nasya is having Vatakaphahara, Brumhana, Vatapulomana, Lekhana, Kaphaghna, Jantughnah Shothahara, Sravahara properties hence is capable of removing the Kapha Avarana in addition helps in Vatashamana and promote Vata Swamarga Pravritti thus capable of controlling Kaphaja Pratishhaya. It also acts as Anti-inflammatory, Antibacterial, Anti-oxidants, Analgesics and Immuno-modulator.

**CONCLUSION**
The treatment Shunti Gud Avapeeda Nasya Karma provided marked improvement in 18% of the patients and 82% of the patients showed moderate improvement. The immune-modulation effect reduces the inflammatory process in nasal cavity and sinuses. The local irritation caused by the drug is helpful to liquefy the purulent sputum and ultimately expelled. Bacteriostatic property of ingredients will arrest the secondary infection. Hence Nasya Karma is a reliable therapy for treating Kaphaja Pratishhaya. Finally it can be concluded that Shunti Gud Avapeeda Nasya therapy is more effective in the management of Kaphaja Pratishhaya. These drugs are safe, not having any side or toxic effects and are natural in origin are added advantages.

**REFERENCES**