A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF NAGARA KSHEERA NASYA AND VACHA-PIPPALI AVAPEEDANA NASYA IN SURYAVARTA

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ABSTRACT

Background and Objectives: Shiras is the one of the three vital principal organs of the body where prana resides. Suryavarta is one among the 11 types of Shiroroga with clinical features of pain in the region of Akshi (eye) and Bhru (eye brow) with periodicity of pain which starts subsiding by evening. The symptoms of suryavarta mostly resembles to Frontal Sinusitis. Nasya Karma is said to be the prime treatment modality in Shiroroga as well as Suryavarta. Nagara Ksheera and Vacha Pippali being Tikshna and Snigdha act as Shirovirechaka and Shulaprashamana. Considering these views present study was planned. Methods: Patients presenting with the classical features of Suryavarta and between the age group of 16years and 60years irrespective of sex were selected and allotted in Group A and Group B with 20 patients in each. Group A was administered with Nagara Ksheera Nasya and Group B with Vacha Pippali Avapeedana Nasya. Results: Administration of Nagara Ksheera nasya provided marked improvement in 5% patients, moderate improvement in 25% patients, 60% of patients got mild improvement and 10% patients remains unchanged. Administration of Vacha Pippali Avapeedana nasya provided marked improvement in 15% patients, moderate improvement in 75% patients and 10% of patients got mild improvement. Hence, from the above results it may be abstracted that Vacha Pippali Avapeedana Nasya provided better effect to the patients of Suryavarta in comparison to Nagara Ksheera Nasya. Conclusion: On the basis of the results of this study it can be clearly concluded that Avapeedana Nasya performed with Vacha Pippali provided significant relief in the signs and symptoms of Suryavarta.

Keywords: Suryavarta, Vacha, Pippali, Avapeedana nasya, Nagara, Ksheera, Frontal sinusitis.

INTRODUCTION

Ayurveda is an ancient medical science which deals with restoration of health, prevention and management of diseases. In Astanga Ayurveda, Shalakya Tantra plays an important role. The term Shalaka is originated from the word Shalaka (Probe), an instrument which is used frequently in the diagnosis as well as treatment of the diseases. Shalakya Tantra is also known as Urdhwanga Tantra or Uttamanga Tantra or Nimi.
Tantra or Jatrurdhwa Chikitsa as it deals with diseases of Eye, Ear, Nose, Throat and Head.

Shiras is one of the three principle vital organs of the body where prana resides. The diseases affecting shiras negatively affects the quality of life. Among the 11 shirorogas explained in the classical texts, the most prevalent one in this present era is Suryavarta. Headache is the cardinal feature of suryavarta along with intense pain in the region of shankha (temples), akshi (eyes), bhru (eyebrows) & lalata (fore-head), commencing with sunrise, increasing in severity till midday and fasting, subsiding in the evening. Most of its features correlate with the features of frontal sinusitis, also called as “office headache”¹, as it affects the routine habits of the population. This condition has become more prevalent because of some common Nidanas such as Rajo – Dhoomosevana, Purovatasevana, Ambukrida, Sheeta Annapana and Vegadharana etc factors. In Ayurvedic classics, it is considered that Nasya karma is the main line of treatment for all the Shirorogas, as Nasa is considered to be the gateway of Shiras. Also acharyas have mentioned that “Suryavarthevidhitlayanasyakarmadibheshajam”² i.e. in suryavarta Nasya is the best line of treatment. Chakradatta has described Vacha pippali Avapeedana nasya ³ and Nagara ksheera nasya ⁴ as a treatment for Suryavarta. These are selected for the present research work in Suryavarta with special reference to Frontal Sinusitis.

MATERIALS AND METHODS
AIM OF THE STUDY:
The present study is aimed to evaluate the efficacy of Nagara ksheera Nasya and Vacha-Pippali Avapeedana Nasya in the management of Suryavarta.

SOURCE OF DATA:
Patients were selected from outpatient department and in patient department of Shalakya Tantra, Alvas Ayurvedic Hospital, Moodbidri.

SAMPLING METHOD:
The patients diagnosed as Suryavarta were randomly divided into 2 groups.

CRITERIA FOR SELECTION OF PATIENTS
Inclusion Criteria
- Patients presenting with the classical features of Suryavarta and between the age group of 16yrs and 60 yrs
- Patients were selected irrespective of sex, occupation, religion, socio-economic status and duration of illness.

Exclusion Criteria
- Complications of Frontal Sinusitis
- Pregnant and Lactating women.
- Subject below 15 years of age and above 60 years of age.

Method of Avapeedana Nasya:
Purvakarma
Nasya was performed in a place with sufficient amount of light and devoid of direct dust and wind. Patient was asked to lie down comfortably on a table in supine position and Abhyanga with lukewarm Tila Taila was done over face, scalp, temporal and neck region. After Abhyanga, Mrudusvedana was done while covering the eyes.

Pradhanakarma
After Abhyanga and Mrudusvedana, the patient was asked to relax and lie down on a table in supine position with head tilted backwards. The limbs were kept slightly up and spread apart on both the sides. Then the Swarasa of Nagara Ksheera Nasya for Group A and Vacha Pippali Avapeedana Nasya for Group B was instilled in the dose of 6 drops in each nostril. Thereafter patient was asked to inhale deeply.
and was advised to spit out the drug that reaches the throat.

**Pushchatkarma**
Gentle massage was done on Lalata, Karna, Pada and Paani and advised to do Luke warm Gandusha to clean the mouth and to activate the therapy. Patient was advised to follow Pathya, not to drink more cold water, and do not expose to Raja, Dhuma.

**Follow up study:**
After the completion of treatment, all the patients were reviewed once in 2 weeks after treatment for next 30 days.

The formulation taken for the study is:
1. Nagara Ksheera Nasya
2. Vacha Pippali Nasya

**Nagara Ksheera Nasya**
The ingredients of Nagara Ksheera Nasya are Nagara kanda and Go ksheera. The crushed dry drug of Nagara 2gm is taken in mortar and into that Goksheera is added and made kalka. To that kalka 24 ml of Goksheera is again added. Then swarasa is obtained for nasya karma.

**Vacha Pippali Avapida Nasya**
The ingredients of Vacha Pippali Avapeedana Nasya are Vacha Mula and Pippali Beja; the dried drug were taken in equal quantity, with double quantity of water Swarasa was obtained which was used for Nasya Karma.

I Nagara Ksheera Nasya for 7 days in two sittings giving a gap of 7 days in Group A.
II. Vacha Pippali Avapeedana Nasya for 7 days in two sittings in Group B.

**Collection of Drugs:**
- Nagara, Vacha and Pippali was collected from Alvas pharmacy mijar and were certified as genuine from the pharmacognostic department of Alvas Ayurveda Medical College Moodbidri.

**Method of Preparation of Nasya:**

**Nagara Ksheera Nasya**
Nagara Ksheera Nasya was freshly prepared as per the requirement in the kriya kalpa theatre of Alvas Ayurveda Hospital Moodbidri. 2 gms of crushed nagara is taken in mortar along with 8 drops of Goksheera. Then kalka is obtained and into that kalka 24 ml of Goksheera is added, which was taken over a cloth and squeezed to get the swarasa.

**Vacha Pippali Avapeedana Nasya** was freshly prepared as per the requirement in the Kriya Kalpa theatre of Alvas Ayurveda Hospital Moodbidri. Equal quantity of dried Vacha Mula and Pippali Beja were taken with double quantity of water to prepare the Kalka, which was taken over a cloth and squeezed to get the Swarasa.

**CRITERIA FOR ASSESSMENT OF EFFECTS OF TREATMENT**
Assessment of the results was made before and after the treatment based on,
1. Shirashoola Dinavrudha Vivardhate
2. Lalata Ruk
3. Akshi Ruk
4. Shankha Ruk
5. Spandanavat Vedana
6. Tenderness over the Sinus Area

**DISCUSSION ON RESULT**

**Effect of Intervention on Shirashoola Dinavridha Vivardhathe within the group**
Percentage wise relief of symptom in Group B(74.46%) is better than Group A (38.77%). Both Vacha and Pippali are having teekshna guna. This symptom is mainly because of accumulated doshas in the shiras. Through shodhana nasya it helps to remove the excessive doshas from the shiras.

On the other hand when nagara is mixed with ksheera its teeksna property is reduced and acts as mruudu snigdha shiro virechaka.

**Effect of Intervention On Akshi ruk within the group**
Percentage wise relief of symptom in Group B (77.55%) is better than Group A (30.53%). Anti inflammatory action of vacha and pippali reduces pain and edema within the sinus there by reducing the Akshi Ruk. Whereas in nagara ksheera nasya due to guru and snigdha guna of ksheera there will be mild reduction in symptoms.
Effect of Intervention on Lalata Ruk and Shankha Ruk
Percentage wise relief of laalata ruk in Group B (68 %) is better than Group A (33.33%).
Percentage wise relief of shankha ruk in Group B(65.30%) is better than Group A (56.52%).
Here vedana is the main symptom. Main karma of vacha and pippali are shoolaprashamana. Pippali helps to reduce vata by its madhura vipaka and Ushna veerya and vacha by its ushna veerya and tikta rasa.
Nagara also possess vata kapha hara and shoola hara properties. So both symptoms got significant result after nasya karma.

Effect of Intervention on spandanavat Vedana
Percentage wise relief of spandanavat vedana in Group A (66.66 %) is better than Group B (63.82%).
Spandanavat vedana is mainly because of chala guna of vata. Vacha is having Anti spasmodic action. Both vacha and pippali helps to reduce the vata by its ushna veerya.
Nagara also possess ushna veerya and reduce vata by its property.

Effect of Intervention on Tenderness over Frontal sinus area
Percentage wise relief of Tenderness over frontal sinus area in Group B (71.42 %) is better than Group A (57.33%).
The tenderness is mainly because of excess mucus production and inflammation of the sinus. Vacha and pippali are having anti inflammatory action and teekshna guna helps to drain out the excess mucus from the sinus.
Nagara ksheera nasya is also having teekshna guna and anti inflammatory action.

Mechanism of Nasyakarma
The Nasya Dravya (medicine) acts by reaching 'Sringataka marma' a main vital point situated on the surface of the brain corresponding to the nerve centers, which consists of nerve cells and fibres responsible for the function of speech-Broca's Centre, vision, hearing, taste and smell.
From where it spreads into various Srotas (vessels and nerves) and brings out vitiated Dosha from the head
Sringataka is a composite structure consisting of four Sira (arteries) in connection with four sense organs-viz, nose, ear, eye and tongue. The composite structure formed by the union of these four arteries is called Sringata. As per the Ayurveda for the evolution of a disease the vitiated Doshas should be brought to the site from its original seat. This movement will be made through the Srotas (channels) and if there is any disturbance in the integrity of the Srotas it results in the development of disease.

With regards to the Urdhwangaroga (diseases of head) there should be some disturbance in the normal functions of Urdhwa Srotas (arteries, veins, nerves in the head). Sringataka are the most important group of Srotas in the Urdhwanga (head) and drugs acting through these Srotas are certain to bring about Srotoshuddhi (cleaning) in Urdhwanga.

Action of drugs used in Nasyakarma
- By general blood circulation, after absorption through mucous membrane.
- Direct pooling into venous sinuses of brain via, inferior ophthalmic veins
- Absorption directly into the cerebrospinal fluid.

Many nerve endings which are arranged in the peripheral surface of mucous membrane, olfactory, trigeminal etc will be stimulated by Nasyadrayya (the medicine used to give Nasya) and impulses are transmitted to the central nervous system. This results in better circulation and nourishment of the organs and the diseases will be subsided. These drugs produce Draveekaranam and Chedanam of vitiated Dosha. The Kashaya Rasa drugs produce astringent effect while Madhura Rasa drugs produce cooling and nourishing effect. It may be stated that the nose is the doorway to the brain and it is also the doorway to consciousness. Prana or life energy enters the body through breath taken in through the nose. Nasal administration of medication helps to correct the disorders of Prana affecting the higher cerebral, sensory and motor functions. The brief
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study of the mechanism of Nasya can be summed up in a single statement made in the Ayurvedic classics, "Nasa hi Shirasodvaram" i.e., nose is a pharmacological passage into the brain.

CONCLUSION

- The Etiology, Pathology and the clinical features are nearly similar in Suryavarta and Frontal Sinusitis.
- The prevalence of disease is observed more in the Middle age group (51%).
- Nagara Ksheera Nasya and Vacha Pippali Avapeedana Nasya are proved effective merely in all patients.
- No patient was reported to have side Effects.
- Overall effect of Group A Nagara Ksheera Nasya has got 5% of marked relief as compared with Group B Vacha Pippali Avapeedana nasya which got 15% of marked relief.
- Hence Vacha Pippali Avapeedana Nasya is found to be more effective than Nagara Ksheera Nasya.
- No side effects were observed during and after the Treatment.

SUMMARY

The present clinical study was done to compare the efficacy of Nagara Ksheera Nasya and Vacha Pippali Avapeedana Nasya in the management of Suryavarta.

The Nidana, Lakshana, Samprapti of Suryavarta is merely similar to frontal sinusitis, Hence, Suryavarta can be correlated to Frontal Sinusitis Suryavatha is one among 11 types of Shiroroga. It is observed in day to day practice and affects the routine work of the persons, which is prevalent in both developed and developing countries. It has no bar of Sex, religion or geographical distribution.

In the present clinical study, 40 patients suffering from Suryavarta were studied in two groups, each comprising of twenty patients. One group of the patients was given Nagara Ksheera Nasya while other group was given Vacha Pippali avapeedana Nasya for 7 days in two sittings giving a gap of 7 days.

Effect of Nagara Ksheera Nasya in Suryavarta

After treatment with Nagara Ksheera Nasya provided highly significant relief in Shirashoola Dinavrudha Vivardhate by 53.06%, in Lalata Ruk by 72.9%, in Shankha Ruk by 43.47%, in Spandanavat Vedana by 46.66%, and Tenderness over Sinus area by 40%. nd significant relief in Akshi Ruk by 6.52%. Nagara Ksheera Nasya provided marked relief to 5% patients, moderate relief to 10% patient and mild relief to 60% patients but 10% patients got no relief.

Effect of VachaPippali Avapeedana Nasya in Suryavarta

After treatment with Vacha Pippali Avapeedana Nasya provided highly significant relief in Shirashoola Dinavrudha Vivardhate by 70.21%, in Lalata Ruk by 72%, in Akshi Ruk by 57.14%, in Shankha Ruk by 57.14%, in Spandanavat Vedana by 57.44%, and Tenderness over Sinus area by 63.26%. Vacha Pippali Avapeedana Nasya provided marked relief to 15% patients, moderate relief to 75% patients and mild relief to 10% patients but no recurrence was there.

Comparison of Effects in both the Groups:

Comparison of the effects in all the symptoms in both the Groups showed that Vacha Pippali Avapeedana Nasya provided better relief in Shirashoola Dinavrudha Vivardhate, Akshi Ruk, Shankha Ruk, Spandanavat Vedana and Tenderness over sinus area.

On the basis of the fore going discussions it can be concluded that though both groups provided significant relief in the signs and symptoms of the patients of Suryavarta, the effect of Vacha Pippali Avapeedana Nasya was comparatively better than Nagara Ksheera Nasya. On the basis of the results of this study it can be concluded that VachaPippali Avapeedana Nasya is ideal for the management of Suryavarta. Because Nagara Ksheera Nasya provided less relief to the patients and recurrence
was there in comparison to Vacha Pippali Avapeedana Nasya.

REFERENCES


Table 1: Showing the percentage of improvement / relief in the symptoms of suryavarta in Group A and Group B after treatment

<table>
<thead>
<tr>
<th>Percentage of improvement / relief</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction In Shirashoola Dinavrudha Vivardhate</td>
<td>53.06%</td>
<td>70.21%</td>
</tr>
<tr>
<td>Reduction In Lalata Ruk</td>
<td>72.91%</td>
<td>72%</td>
</tr>
<tr>
<td>Reduction In Akshi Ruk</td>
<td>6.52%</td>
<td>75.51%</td>
</tr>
<tr>
<td>Reduction In Shankha Ruk</td>
<td>43.47%</td>
<td>57.14%</td>
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<tr>
<td>Reduction In Spandanavat Vedana</td>
<td>46.66%</td>
<td>57.44%</td>
</tr>
<tr>
<td>Reduction In Tenderness Over Sinus Area</td>
<td>40%</td>
<td>63.26%</td>
</tr>
</tbody>
</table>

Graph No: 1

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