



Research Article

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AN OBSERVATIONAL CLINICAL STUDY ON THE MANAGEMENT OF SURYAVARTA VIS-À-VIS FRONTAL SINUSITIS

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ABSTRACT

Shiras is one of the three principal vital organs of the body where prana resides. The diseases affecting Shiras reduce productivity and negatively affect the quality of life. Among the different types of Shiroroga mentioned in Samhitas, Suryavarta is the most prevalent disease in present era. The symptoms of Suryavarta almost resemble to Frontal Sinusitis. Sinusitis is a major health care issue that affects a large proportion of population. This is a common condition, affecting approximately 30 % of the population. More than 120 million Indians suffer from at least one episode of Sinusitis each year. Treatment available for this condition in present day practice includes, use of analgesics and antibiotics which show minimal desired effect and in addition these may cause adverse effect. To overcome such problems in management, it is imperative to explore newer, efficacious drugs and procedures. Ayurvedic classics have advocated various therapies in the management of Suryavarta. This study is an attempt to reevaluate the line of treatment for Suryavarta vis-a-vis Frontal Sinusitis. Present study was conducted on 50 patients with virechana followed by nasya along with the following Shamnoushadis Pathyadi Kwatha and Shirashooladi Vajra rasa and follow-up was done after 2 months. In the present study results obtained with respect to all the parameters were statistically highly significant with 'P' value of 0.000. Out of 50 patients, 41 (82.0 %) got marked relief and 9 (18.0 %) got moderate relief from the parameters considered for the study. Even after follow up there was no recurrence.

Keywords: Shiras, Suryavarta, Frontal sinusitis, Virechana, Nasya

INTRODUCTION

Suryavarta is one among the 11 types of shirorogas explained in the classics. It is one of the common clinical conditions found in day to day practice. It presents with headache as one of its cardinal feature and its occurrence is found in both sexes and in all age groups.

The other cardinal features of Suryavarta include intense pain in the region of akshi (eye) and bhru pradesha (eyebrow)¹. It shows characteristic periodicity that comes upon waking, gradually increases and reaches its peak by about midday and then starts subsiding. Most of its clinical features correlate with the features of Frontal Sinusitis; it is also said as "office headache"², as it affects routine activities of the population. Sinusitis is a most common disease affecting an estimated 30 % of the whole population. It is estimated that 1 among 8 Indians are hit by chronic Sinusitis³. Sinusitis affects all age groups. Adults and children who suffer from asthma and other allergies are more likely to develop Sinusitis. Sinusitis is an inflammatory condition of mucous membrane lining the sinuses. Most frequently Sinusitis is an extension from nasal infection, but any condition which interferes with drainage and aeration of a sinus renders sinus to infection. Sinusitis is also a highly prevalent disease caused on exposure to cold and dust. Its recurrence rate is high; as one is constantly exposed to the external environment. If Sinusitis is not treated properly it leads to many

complications like orbital cellulites, osteomyelitis and fistula formation of frontal bone, meningitis and brain abscess. In this regard while exploring Ayurvedic classics, one can find few simple techniques and medicaments in the treatment of Suryavarta. Many research works are being carried out like avapedana nasya with vacha pippali and shireeshadi. In Charaka Samhita Kayavirechana along with Shirovirechana has been described as the main line of treatment in Suryavarta⁴. Since Kayavirechana and Shirovirechana has been mentioned in both Charaka Samhita and Sushruta Samhita. This study has been taken up to evaluate the effectiveness of Kayavirechana and Shirovirechana along with Shamnoushadis in Suryavarta vis-a-vis Frontal Sinusitis.

MATERIALS AND METHODS

Objective of the Study

To evaluate the combined effect of Shodhana Karma (Virechana and Nasya) along with Shamnoushadis (Pathyadi Kwatha and Shirashooladi vajra rasa) in Suryavarta vis-a-vis frontal sinusitis.

Study Design

The patients were selected from the O.P.D and I.P.D of Government Ayurveda Medical College and Hospital, Mysore, India. Total 55 patients between the age group of

16 to 60 years, fulfilling the criteria for the diagnosis of the disease were registered for the study. Out of which 5 patients got dropped out. Remaining patients were assigned into single group. Data were collected as per the proforma of the case sheet. The study was an observational with pre and post test design. Institutional Ethical Clearance Number assigned to this study is 2541107.

Inclusion Criteria

- Patients having signs and symptoms of Suryavarta were selected.
- Patients of either sex between the age group of 16-60 years were selected.
- Both fresh and treated cases were selected.

Exclusion Criteria

- Patient suffering from any systemic disorders which interfere with course of disease and treatment.
- Patients who were not fit for Shodhana karma.

Diagnostic Criteria

Primary Criteria:

Based on signs of Suryavarta vis-a-vis Frontal sinusitis i.e.;

- Positive Sinus tenderness
- Positive transillumination

Secondary Criteria:

Based on symptoms of Suryavarta vis-a-vis Frontal sinusitis i.e.;

- Shirashoola dinavidha vivardhate
- Lalataruk
- Akshiruk
- Bhurruk
- Shankharuk
- Spandhanavat vedana

Investigations

X-Ray: PNS (Water's View) was taken for the diagnosis of Frontal sinusitis and to exclude other diseases.

Intervention

Ama pachana – Panchakola choorna 4 g TID BF until Nirama lakshana were observed.

Snehapana – Guggulu Tiktaka Ghrutha⁵ in arohana krama until Samyak Snigdha Lakshana were observed.

Virechana – Trivrit lehya⁶ around 30-40 g depending upon Koshta

Nasya – Anu taila⁷: 6 drops in each nostril for 7 days

Shamanoushadhis –

- Pathyadi kwatha⁸ - 20 ml BD after food with 5 g of Guda
- Shirashooladi vajra rasa⁹ - 2 BD after food along with Jala.

Statistical Analysis

Data was collected before, during and after the treatment. These were analyzed by using descriptive statistics, Contingency table analysis/x² test, Paired sample 't' test using Statistical Presentation System Software (SPSS) for windows.

OBSERVATIONS AND RESULTS

General observation

In the present study maximum number of patients i.e. 42 % belonged to 16-30 years age group with more female population (62 %) and majority of them were housewives (32 %). Majority of the patients belonged to urban habitat (76 %), were graduated (38 %) and were belonging to lower middle class (80 %). Most of patients were having pratishayaya as poorvarupa (75 %). Majority of the patients were having Vatakaphaja (60 %) and Vatapittaja (30 %) prakruthi. The data regarding the samples were collected, depending upon the scoring given to each of the symptoms. The parameters were assessed Before Treatment (BT), After Virechana (AV), After Nasya (AN), After Shamnoushadhis (AS) and after follow up (AF). Effect of therapy on most of the criteria related to degraded quality of life showed marked percentage of improvement. Effect of therapy on Suryavarta Symptoms showed highly statistically significant result with P value 0.000. Effect of therapy on Headache Symptoms and tenderness showed highly statistically significant result with P value 0.000. Effect of therapy on Nasal Blockage Symptom: Before the treatment 32.5 % of the patients had partial blockage and 20 % patients had complete blockage which got reduced to 82.5 % patients with no blockage followed by 7.5 % patients of partial blockage. Effect of therapy on Nasal Discharge Symptom showed highly statistically significant result with P value 0.000. Effect of therapy on X-ray findings: Maximum of 100 % patients had haziness in sinuses which got completely relieved in 57.5 % of patients after treatment. The result on X-ray showed highly statistically significant result with P value 0.000. Overall effect of the Treatment: Out of 50 patients, maximum of 34 (68.0 %) patients got marked relief followed by 12 (24.0 %) patients got moderate relief, and 4 (8.0 %) patients got mild relief.

DISCUSSION

Following points were considered during treatment fixation, they are: Retention of the discharge in sinus is the chief problem which manifest as various sinus symptoms and long standing nature of the disease puts the patient in an immune compromised state. Patient remain in a physical and mental distress, due to the symptoms like headache, loss of smell, halitosis; heaviness in head which ultimately interrupt the working capacity of the person and long term drug administration and diet restriction makes the patient weak.

Selection of Treatment: Virechana and Nasya were the chief Shodhana procedure selected because these procedures can perform both functions of Shareera as well as Uttamanga shudhi. Ghrita was the therapeutic form selected for internal usage for Shodhanartha Snehapana for bringing the doshas from shakha to kosta. Virechana was performed to eliminate the vitiated Doshas from body. Sneha and sweda which were performed during Nasya procedure liquefied the foul smelling thick secretions of sinuses and easily expelled. The shamana oushadhis are being used to cure the disease along with improving the immunity of the person.

Table 1: Gradation Index

S. No.	Assessment criteria
Subjective	
1.	Suryavarta Symptoms 0-No symptoms of Suryavarta 1-Any 1-2 symptoms present 2-Any 2-3 symptoms present 3- All the 5 symptoms are present
2.	Headache 0 – No symptoms of headache or tenderness 1 – Mild headache and tenderness, patient won't clinch the face when palpated 2 – Headache and tenderness, patient clinches the face when palpated 3 – Severe headache, patient doesn't allow palpating the sinuses.
3.	Nasal blockage 0 – Absent 1 – Partial blockage 2 – Complete blockage
4.	Nasal discharge 0 – Absent 1 – Present
Objective	
5.	X – ray, (PNS view), Haziness / fluid levels 0 – Absent 1 – Present

Table 2: Incidence and results on Suryavarta Symptoms

	Duration					Total
	BT	AV	AN	AT	AF	
No symptoms of Suryavarta	0	0	6	34	40	80
Any 1-2 symptoms of Suryavarta	0	1	38	15	10	64
Any 2-3 symptoms of Suryavarta	6	36	6	1	0	49
All 5 symptoms of Suryavarta	44	13	0	0	0	57
Total	50	50	50	50	50	250

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.779	0.000
N of Valid Cases		250	

P 0.000 HS; The result on Suryavarta symptoms showed highly significant statistically with P value 0.000

Table 3: Incidence and results on Headache Symptoms

	Duration					Total
	BT	AV	AN	AT	AF	
No symptoms of Headache or tenderness	0	7	24	41	44	116
Mild Headache and tenderness, patient won't clinch the face	0	14	25	9	6	54
Headache and tenderness, patient clinches the face when palpated	25	26	1	0	0	52
Severe headache, patient doesn't allow palpating the sinuses	25	3	0	0	0	28
Total	50	50	50	50	50	250

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.713	0.000
N of Valid Cases		250	

P 0.000HS; the result on headache and tenderness showed highly significant statistically with P value 0.000

Table 4: Incidence and results on Nasal Blockage Symptoms

	Duration					Total
	BT	AV	AN	AT	AF	
Absent	20	33	40	47	47	187
Partial blockage	20	15	10	3	3	51
Complete blockage	10	2	0	0	0	12
Total	50	50	50	50	50	250

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.459	0.000
N of Valid Cases		250	

P 0.000HS; the result on nasal blockage showed highly significant statistically with P value 0.000

Table 5: Incidence and results on Nasal Discharge Symptoms

	Duration					Total
	BT	AV	AN	AT	AF	
Absent	16	26	40	44	46	172
Present	34	24	10	6	4	78
Total	50	50	50	50	50	250

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.446	0.000
N of Valid Cases		250	

P 0.000HS; the result on Nasal discharge showed highly significant statistically with P value 0.000

Table 6: Incidence and results on X-ray

	Duration		Total
	BT	AT	
Present	50	21	71
Absent	0	29	29
Total	50	50	100

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.539	0.000
N of Valid Cases		100	

P 0.000HS; the result on X-ray finding showed highly significant statistically with P value 0.000

Table 7: Overall improvement of Treatment

Overall improvement of Treatment	Frequency	Percentage (%)
Marked relief	34	68.0
Moderate relief	12	24.0
Mild relief	4	8.0
Total	50	100

It is more prevalent in 16-30 years age group as it was observed in this particular study that the student (22.0 %) and house wives (32.0 %) suffers from Suryavarta vis-a-vis Frontal Sinusitis mainly due to stress and strain experienced in their fields respectively. Moreover they are more frequently been exposed to dust and air pollutants and more physical and mental workload as compared to others. Out of 50 patients, 38 patients were from urban area (76 %) whereas 12 (24 %) patients belonged to rural area. This observation may be due to pollution, dust, using air-conditioned room for long hours and sudden exposure to hot temperature in the environment. Prakruti wise distribution in the patient of Suryavarta showed that, out of 50 patients, 30 patients (60 %) were of vatakaphaja prakruti, 15 patients (30.0 %) were of vatapittaja prakruti and 5 patients (10 %) were of pittakaphaja prakruti. This Prakruti definitely plays an important role in the pathophysiology of the disease. Short term exposure to etiological factor can cause sudden manifestation of the disease in this group. It is observed that, in all of the patients (100 %) pain aggravated when they were exposed to sun, which gradually increases as the intensity of sun increases (up to midday) and comes down gradually by evening. It was seen that pain aggravated on exposure to the cold air, Ambu Kreedha, sheeta and snigdha ahara.

CONCLUSION

Nidanans explained in Ayurvedic classics are acting as initiating or precipitating factor for Suryavarta. Viharasambandhi nidanas like exposure to raja, dhooma,

sheetavayu and nidanarthakararoga like pratishyaya have a significant role in the onset of Suryavarta. Samprapti of Suryavarta is complex, as various known, unknown, exogenous, or endogenous etiological factors are responsible for pathological process. This study was an observational, which was conducted on 50 patients. Among them, maximum numbers of patients were females and incidence was noticed more in age group between 16-45 years. Out of 50 patients, 34 (68 %) got marked relief, 12 (24 %) got moderate relief from the parameters considered for the study. Even after follow up, there was no recurrence. Statistically also the results on all parameters showed highly significant effect at the end of treatment with P value of 0.000. Guggulu tiktaka gritha acts as pittavata shamaka and these drugs also acts as shothahara, vedanasthapaka and Rasayana. As it is Pitta pradhana Vyadhi, Trivrit lehya was taken for Mrudu Virechana. Anu taila has Indriyadardyakaratwa, Balya, Preenana and Brimhana properties which increase general as well as local immunity. Shirashooladi vajra rasa was selected for its Shoolahara as well as Shothahara properties along with Rasayana effect. Pathyadi Kwatha is mainly indicated for Suryavarta for its Tridoshagnata property along with this it also acts as Vedanasthapaka, Shothahara and Shoolahara. Hence, the combination of Virechana followed by Nasya along with Shirashooladi vajra rasa and Pathyadi Kwatha were found to be very effective in the management of Suryavarta vis-à-vis Frontal Sinusitis.

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