



Research Article

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A PILOT STUDY ON THE EFFICACY OF ARDHANARISHVARA RASA NASYA IN THE MANAGEMENT OF KAPHAJA SHIROROGA (SINUSITIS)

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ABSTRACT

Sinusitis is a major problem in the society due to its recurring nature and complications. It is the fifth most common diagnosis for which antibiotics are prescribed and treatment with decongestants, antihistamines etc. is not successfully contended due to their side effects. In Ayurveda, it can be correlated with Kaphaja Shiroroga. In Kaphaja Shiroroga treatment Shirovirechana Nasya is recommended. In present trial 15 patients of Kaphaja Shiroroga were selected and given Nasya with Ardhanarishvara Rasa. A significant relief was found in most of the sign and symptoms of Kaphaja Shiroroga (sinusitis).

Key words: Kaphaja Shiroroga, Sinusitis, Nasya, Ardhanarishvara Rasa

INTRODUCTION

Kaphaja Shiroroga as described by Acharya Sushruta is - Guru Pratistabdham (Heaviness and fullness of head), Himam (Coldness in head), Shunakshikootavadanam (Swelling of face especially around the eyes), Shirobhitapa (Headache), Shirogalam Kaphaupdigdham (Feeling of having a coating of phlegm inside the head and throat).¹ Sinusitis, defined as an inflammatory process of the mucous membranes of the paranasal sinuses. It is an exceedingly prevalent disorder that has a significant impact on the quality of life of affected individuals. It affects 1 out of every 7 adults in the United States, with more than 30 million individuals diagnosed each year. It is the fifth most common diagnosis for which antibiotics are prescribed.² It is estimated that 1 among 8 Indians suffer from chronic sinusitis.³ The treatment of sinusitis includes antibiotics, decongestants, antihistamines, analgesics and surgical procedures. Although these treatments provide their best contributions towards the healing process, but sinusitis is not successfully combated due to its recurrence. The side-effects of the analgesics and antibiotics are well-known. Antihistamines may complicate drainage by thickening and pooling sinonasal secretions. Topical vasoconstrictors (e.g., oxymetazoline hydrochloride) provide good drainage, but they should be used only for a maximum of 3-5 days, given the increased risk of rebound congestion, vasodilatation and rhinitis medicamentosa when used for longer periods.⁴ Fear of surgery, its expense and complications have restricted patients from opting surgery.

In view of magnitude of the problem, there is a need to elucidate a therapy within reach of patient and having the potential to drain the sinuses by removing the pathology with sustained effect and reduced recurrence. In Ayurveda, Nasya is the chief procedure to remove Doshas (infectious material) from Shiras as it is quoted that “Nasa hi Shiraso Dwaram”.⁵ Hence Avapeeda Nasya with Ardhanarishvara Rasa due to its medicinal properties helps in removing the vitiated Kapha thereby clearing

the Srotas (sinuses) situated in Shiras (skull and face). Moreover the contents of Ardhanarishvara Rasa have analgesic, antibiotic and anti-inflammatory effect and thus help in breakdown the pathogenesis of sinusitis. Therefore the present pilot study on role of Nasya therapy in sinusitis was selected.

MATERIAL AND METHODS

Selection of Patients

Source: Patients attending the O.P.D. and I.P.D. of Shalaky Tantra of National Institute of Ayurveda, Jaipur were screened for the present study. Freely given informed consent was obtained from every subject prior to research participation. Institutional Ethics Committee (IEC) approval was taken before initiation of research work vide letter number F10(5)/EC/2014/7224 dated 7-11-2014.

Inclusion criteria

1. Patients fulfilling the diagnostic criteria which were based on the signs and symptoms of Kaphaja Shiroroga explained in Ayurvedic classics and sinusitis as per modern science.
2. Patients between the age group of 8 to 80 years.

Exclusion criteria

1. Patients not willing for the trial were excluded.
2. Pregnant women.
3. Patients aged below 8 years and above 80 years.
4. Patients suffering from pain and facial swelling due to alveolar abscess, cellulites of cheek, furuncle, trigeminal neuralgia, temporal arthritis and malignancies of sinuses.

Administration of Drug

In Ardhanarishvara Rasa⁶ preparation, varatikabhasma, tankanabhasma, krishnamaricha powder and purified vatsnabha

powder were taken in the given amount and mixed. The mixture was ground with Godugdha and dried to form powder. The powder was rubbed with water and given through nose in the form of Avapeedanasya in the dose of 4 drops in each nostril for 7 days with 7 days gap in between two sittings.

Investigations: X-Ray PNS, Hb%, TLC, DLC, ESR, Absolute eosinophil count

Assessment Criteria

For assessment of the efficacy of the trial therapy, following subjective and objective parameters were adopted:

Subjective criteria

- 1) Shiroabhitapa (Headache)
- 2) Shiroguruta (Heaviness in head)
- 3) Galam Kaphaupadigdam (Post nasal drip)
- 4) Shunakshikootavadanam (Periorbital and facial oedema)
- 5) Nasal obstruction
- 6) Nasal discharge
- 7) Tenderness over sinuses

Objective criteria

Haziness in sinuses in X-ray

Statistical Analysis

The scoring of assessment criteria was analyzed statistically in terms of mean values of B.T. (Before Treatment), A.T. (After treatment), Standard Deviation (SD) and Standard Error (SE). Various observations made and results obtained were computed statistically using Wilcoxon matched pairs signed ranks test.

OBSERVATIONS

In present study, majority of patients had chronic type of sinusitis (80%) and 73.33% had seasonal attacks of the disease. Maximum patients had mild headache (66.66%), thick (mucopurulent) nasal discharge (40%) and maximum patients had maxillary sinuses opacity in X-Ray PNS. Among 15 patients, headache was found in 93.33% patients, Shiroguruta in 13 patients, 6 patients had Kaphaupadigdam Galam (post nasal discharge), 4 patients were with complaint of Shunakshikootavadanam, 93.33% patients had nasal obstruction and nasal discharge was found in 66.66% patients.

RESULT

The symptomatic improvement was considerable in all the subjective parameters. But the overall percentage change was less in haziness in sinuses in X ray PNS (20.98%). As per table number 1 and 2, statistically extremely significant ($p \leq 0.001$) results were found in Shiroabhitapa, Shiroguruta, nasal obstruction and haziness in sinuses in X-ray PNS. Statistically very significant ($p < 0.01$) results were found in nasal discharge and tenderness over sinuses and not significant ($p > 0.05$) result was found in Shunakshikootavadana (periorbital and facial edema).

Table 1: Effect of therapy on subjective parameters

S. No.	Symptoms	Mean		Dif.	% of Change	SD	SE	W	P	Results
		BT	AT							
1	Shiroabhitapa (Headache)	1.86	0.66	1.20	64.27	0.86	0.22	78	0.0005 $p < 0.001$	ES
2	Shiroguruta (Heaviness in head)	1.33	0.33	1.00	75.01	0.65	0.16	78	0.0005 $p < 0.001$	ES
3	Kaphaupadigdam Galam (Post nasal drip)	0.93	0.46	0.46	50.02	0.63	0.16	21	0.0313 $p < 0.05$	S
4	Shunakshikootavadanam (Periorbital and Facial edema)	0.26	0.06	0.20	74.99	0.41	0.10	6	0.2500 $p > 0.05$	NS
5	Nasal obstruction	1.86	0.86	1.00	53.56	0.65	0.16	91	0.0002 $p < 0.001$	ES
6	Nasal discharge	1.20	0.46	0.73	61.10	0.70	0.18	45	0.0039 $p < 0.01$	VS
7	Tenderness over sinuses	2.40	0.66	1.73	72.20	1.98	0.51	36	0.0078 $p < 0.01$	VS

BT: Before Treatment, AT: After Treatment

Table 2: Effect of therapy in objective parameters

S. No.	Symptoms	Mean		Dif.	% of Change	SD	SE	W	P	Results
		BT	AT							
1.	Haziness in sinuses in X-ray PNS	5.40	4.26	1.13	20.98	0.74	0.19	78	0.0005 $p < 0.001$	ES

BT: Before Treatment, AT: After Treatment

DISCUSSION

Aacharya Sushruta has mentioned that in Kaphaja Shiroroga, the Kapha subduing measures such as Shirovireka (head purgatives), Teekshna Vamana (emetics) and Gandusha (gargling) should be used.⁷ Modern system of medicine also concentrates to proper drainage and ventilation of sinuses through medical and surgical management. Therefore Avapeeda Nasya (comes under Shirovirechana type) with Ardhanarishvara Rasa showed significant relief in various sign and symptoms of sinusitis. Here Purvakarma i.e. Abhyanga helped in Dosha Mardavkaran, steam inhalation helped in KaphaVilayana and Nasya being Vyadhipratyanika helped in relieving the symptoms. In Paschat Karma, Gandusha with Ushnodaka (warm water) acts as Sleshmahara and help to drain out the remaining Utklishta Doshas. Most of the drugs in Ardhanarishwara Rasa have Katu Rasa; Ushna, Teekshna, Ruksha Guna; Ushna Veerya; and Katu Vipaka. Margan Vivrunoti, Shothahara, Kaphanissaraka and Lekhana properties of Rasa Panchaka of Ardhanarishwara rasa cause Srotomukhavishodhana, hence remove obstruction of sinuses ostia and facilitate the drainage of purulent discharge. Katu Vipaka, Ushna Veerya and Teekshna properties produce Draveekarana (Vilayana) and Chedana of vitiated Kapha and Aam stuck in the Srotas of head. Katu Rasa Dravya instillation in nose shed off the Aavrana (obstruction due to vitiated Kapha) and reestablished the flow of Vata (PranaVayu). The local irritation made by the drug is helpful to liquefy the purulent discharge and ultimately expelled it out from the sinuses. According to various researches, the ingredients of Ardhanarishwara Rasa like Vatsnabha⁸, Varatika⁹, Tankana¹⁰ and Maricha¹¹ possess anti-inflammatory activity which prevent the inflammatory process and thus helps in reducing the symptoms of Kaphaja Shiroroga (sinusitis).

CONCLUSION

In management of Kaphaja Shiroroga, main concentration is given to the Dosha Apkarshana from Urdhvajatru Pradesha and the main treatment which can drain the retained discharge (vitiated Kapha) from the sinuses is Shodhana Nasya. In the present study, Nasya with Ardhanarishwara rasa which is a teekshna Avapeedanasya showed considerable result in alleviating the symptoms of sinusitis. The study should be carried out on large sample to ascertain the effect of drug.

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