



Research Article

www.ijrap.net



MANAGEMENT OF ARDHAVABHEDAKA VIS-À-VIS MIGRAINE: AN OBSERVATIONAL CLINICAL STUDY

Shree Vidya P^{1*}, Shantharam K.S², Gajanana Hegde³, Mythrey R. C⁴

¹PG Scholar, Department of Post-Graduate Studies in Kayachikitsa, Government Ayurveda Medical College, Mysore, India

²Professor, Department of Post-Graduate Studies in Kayachikitsa, Government Ayurveda Medical College, Mysore, India

³Head of the Department, Department of Post-Graduate Studies in Kayachikitsa, Government Ayurveda Medical College, Mysore, India

⁴Assistant Professor, Department of Post-Graduate Studies in Kayachikitsa, Government Ayurveda Medical College, Mysore, India

Received on: 09/08/13 Revised on: 10/10/13 Accepted on: 02/12/13

*Corresponding author

E-mail: harika.p999@gmail.com

DOI: 10.7897/2277-4343.04609

Published by Moksha Publishing House. Website www.mokshaph.com

All rights reserved.

ABSTRACT

Headache is the most common health problem experienced by mankind. In that, around 40% of individuals worldwide are suffering from migraine headache which results in severe disabling condition. W.H.O has ranked migraine as number 19 among all diseases worldwide causing disability. According to International Headache Society, Migraine constitutes 16% of the primary headache and affects approximately 10-20% of general population (About 15% of women and 6% of men are the sufferers of migraine). Migraine can be defined as benign, recurring syndrome of headache, nausea, vomiting and/or other symptoms of neurological dysfunction in varying admixtures. The symptom complex of which simulates with Ardhavabhedaka is one among the 11 types of shiroroga. The treatment protocol of contemporary science are not acceptable due to their drawbacks and they also cause drug dependence, relapse of headache within hours etc. beside this, the text Charaka samhita mentions Nasya karma as the master key for all shirorogas. So, this study has been carried out with an objective to evaluate the combined efficacy of shatahvadi taila nasya karma with Tablet Nimbadi guggulu and Mashadi kashaya in the management of Ardhavabhedaka vis-à-vis Migraine. The study had been carried out in 30 patients under a single group for a period of 30 days with pre, mid and post test. Overall assessment showed statistically highly significant results with the p value 0.000.

Keywords: Ardhavabhedaka, Migraine, Nasya karma, Shatahvadi taila, Tablet Nimbadi guggulu, Mashadi kashaya

INTRODUCTION

Migraine is one of the common causes of recurrent headache. According to International Headache Society, Migraine constitutes 16 % of the primary headaches and affects 10-20 % of the general population.¹ It is three times more common in women than men. More than 2/3rd of Migraine suffers, either have never consulted a doctor or have stopped doing so. It is under diagnosed and under treated, hence WHO ranks Migraine among the World's most disabling medical illness and Thus migraine is now recognized as a chronic illness, not simply a headache.² The term "Migraine" refers to a syndrome of vascular spasms of the cranial blood vessels. Symptoms of a migraine attack may include heightened sensitivity to light and sound (sonophotophobia), nausea, auras (loss of vision in one eye or tunnel vision), difficulty of speech and intense pain predominating on one side of the head.³ Where in these symptoms almost simulates with the condition Ardhavabhedaka, which is one among the 11 types of shirorogas explained in the classics which presents with Bhedatodavat ardhaparshwa shirashula having periodic attacks⁴ and with prakasha, shabdha asahishnutha.⁵ As per the text Charaka Samhita, it is mentioned that Ardhavabhedaka if left untreated it leads to deafness and blindness.⁶ Migraine does not shorten the life, but in severe cases a state of chronic exhaustion may occur. Migraine is a risk factor for stroke in both men and

women, especially before age 50. About 19 % of all strokes occur in people with a history of migraine.³ It is a medical and health problem of first magnitude, because of the frequency, the vast span of clinical types, the known and unknown causes and mechanisms, complications and number of work hours lost by those suffering with headache.² According to contemporary science, the treatment protocol of Migraine comprises of non-pharmacological treatment such as identification of triggers, meditation, relaxation training, psychotherapy, etc and pharmacotherapy as abortive and preventive therapy. Aspirin, Paracetamol, Ibuprofen, Diclofenac, etc are nonspecific abortive therapy, whereas Ergot, 5-HT receptor agonists are specific abortive therapy. Similarly Beta blockers, Calcium channel blockers, Triptans, Anti-convulsing etc,¹ but these drugs are not acceptable due to their drawbacks and also as they cause drug dependence, drug withdrawal syndrome, relapse of headache within hours and chances of getting chronic headache.² In contrast to this, Ayurveda has a variety of efficacious procedures and medications with no drawbacks and incidence of recurrence in the treatment of Ardhavabhedaka. Many research works has been done viz., effect of kumkumadi ghrita nasya and comparative study of nasya karma and takra dhara in the management of Ardhavabhedaka Thus among various treatment

modalities, special emphasis is given on Nasya karma in the management of Ardhavabhedaka. The condition chiefly caused due to the predominance of Vata dosha or Vata-Kapha dosha. With this background present study has been intended to evaluate the combined efficacy of shatahvadi taila nasya karma with Tablet Nimbadi guggulu and mashadi kashaya as shamanoushadhis in the management of Ardhavabhedaka

Objectives

To evaluate the combined efficacy of Shatahvadi taila Nasya with Tablet Nimbadi Guggulu and Mashadi Kashaya in the management of Ardhavabhedaka vis-à-vis migraine

MATERIALS AND METHODS

Source of data

Patients of either sex diagnosed to be suffering from Ardhavabhedaka vis-à-vis Migraine were selected incidentally from OPD, IPD and special camps conducted in G. A. M. College and Hospital, Mysore, India and other referrals for the present study. Institutional ethical clearance number granted for this study is: 2542011 (03)

Inclusion Criteria

- Age: 16 – 70 years.
- Either sex.
- Both fresh and treated cases were selected.
- Patients having symptoms of Ardhavabhedaka vis-à-vis Migraine.

Ardha parshwa (Unilateral)

Bheda, Toda, Shoola (Pulsating, throbbing type of pain)

Pakshat, Dashahat, Akasmat (Paroxysmal)

Prakasha Asahishnuta (Photophobia)

Exclusion Criteria

- Age < 16 and > 70 years.
- Other types of shirashoola such as Anantavata, suryavartha, pittaja shirashoola, Kaphaja shirashoola, dustapratishyaya, peenasa etc. were excluded.
- Referred pain in one half of the head due to disorders of eye, ear, nose, throat, teeth etc. was excluded.
- Patients with complicated Migraine, status migrainosus, ophthalmic Migraine, hemiplegic Migraine, retinal Migraine, basilar artery Migraine etc. were excluded.
- Any other systemic disorders which interfere with the course of the treatment were excluded.

Diagnostic Criteria

The diagnosis was made based on the criteria of Migraine provided by International Headache Society.

- At least 5 attack in history.
- Headache attacks lasting 4-72 hours.

- Headache has at least 2 of the following:
 1. Unilateral location.
 2. Pulsating quality.
 3. Moderate or severe pain intensity.
 4. Aggravation by or causing avoidance of routine physical activity (e. g. walking or climbing stairs)
- During headache at least one of the following
 1. Nausea and/or vomiting
 2. Photophobia and phonophobia
- Not attributed to another diseases

Research Design

It is an observational study. Patients were assigned in to single group consisting of 30 patients excluding dropouts with pre, mid and post test study design.

Intervention

- Patients were administered with Shatahvadi taila Nasya- 6 drops in each nostril for 7 Days.
- Tablet Nimbadi Guggulu 1 Tid with Ushna Jala after food
- Mashadi Kashaya 15 ml Tid with equal quantity of ushna jala after food

Intervention period - 1 month

Assessment criteria

- The assessment was done before, during and after the treatment and results were analyzed statistically as per the assessment chart.
- Pre-test and post-test overall assessment was also done.

Table 1: Showing the grading used to assess the symptoms

S. No	Symptoms	Grading
1	Severity of Pain	
	Intolerable pain	4
	Disturbing the routine work	3
	Not disturbing the routine work	2
	Pain tolerable	1
	No pain	0
2	Duration of pain	
	Over 24 h or continuous	4
	13-24 h	3
	4-12 h	2
	1 minute - 3 h	1
	No pain	0
3	Frequency of attack	
	Continuous/daily	4
	Once in 1-10 days	3
	Once in 11-20 days	2
	Once in 21-30 days	1
	No attack	0
4	Associated symptoms	
	Nausea, Vomiting, Photophobia, Vertigo, Tinnitus, Aura, Phonophobia, Numbness, Heaviness, Tenderness, Diarrhoea, Confusional state	Absent/ Present

Improvements were graded and results were statistically analyzed using Descriptive statistics, contingency coefficient test and Cross tabulations using statistical presentation system software (SPSS) for windows.

OBSERVATION AND RESULTS

In the present clinical study, total 34 patients were registered. Among these, 4 patients quit the treatment at various levels. Hence, the observations were carried out on remaining 30 patients. In the present study, maximum number of patients i.e. 66.7 % belonged to 16-40 years age group with majority of female subjects (80 %) and majority of them were housewives (50 %). Majority of patients belonged to urban habitat (66.7 %), were graduates (46.7 %) and were belonging to upper middle class (43.3 %). Majority of the patients (63.3 %) had the chronicity between 4-12 years and 96.7 % gave a history of gradual onset of headache. Majority of the patients (43.3 %) were of vatapittaja prakriti, 73.3 % and 40 % of patients were of madyama kosta and in mandagni avasta respectively. In most of the patients, onset of headache triggered i.e., 90 %, 96.7 % and 76.7 % by aharaja, viharaja and manasika nidanas respectively.

The results were analyzed individually and overall assessment was done on the basis of previously mentioned criteria. The parameters of this study were severity of pain, duration of pain, frequency of attack and 12 associated symptoms as mentioned in assessment scale.

Chief Complaints

Severity of Pain

Before treatment, 20 patients (66.6 %) had intolerable pain, 9 patients (30 %) had pain which disturbs routine work and 1 patient (3.33 %) had pain which does not disturb routine work. After treatment, 21 patients (70 %) had no pain, 8 patients (26.6 %) had tolerable pain and 1 patient (3.33 %) had pain which does not disturb routine work. The result on severity of pain showed highly statistically significance with p value 0.000.

Duration of Pain

Before treatment, 12 patients (40 %) had duration of pain over 24 hours, 7 patients (23.3 %) had duration of pain between 13-24 hours, 7 patients (23.3 %) had duration of pain between 4-12 hours and 4 patients (13.3 %) had duration of pain between 1-3 hours. After treatment, duration of pain was completely reduced in 22 patients (73.3 %) and 8 patients (26.6 %) had duration of pain between 1-3 hours. The result on duration of pain showed highly significant effect with P value 0.000.

Frequency of Attack

Before treatment, 18 patients (60 %) had frequency of attack which was daily/ continuous, 9 patients (30 %) had frequency of attack between 1-10 days and 3 patients (10 %) had frequency of attack between 21-30 days. After treatment, 24 patients (80 %) did not experience frequency of attack, 5 patients (16.6 %) had frequency of attack between 21-30 days and 1 patient (3.33 %) had frequency of attack between 11-20 days. The result on frequency of attack showed highly significant effect with P value 0.000. Complete relief in severity of pain, duration of pain and frequency of attack was observed in 63.6 %, 53.7 % and 43.6 % respectively.

Associated Complaints

The results on nausea, vomiting, photophobia, vertigo, phonophobia, heaviness, tenderness showed highly statistically significance with p value 0.000. The results on tinnitus, aura, numbness, diarrhea and confusion state showed statistically insignificant results as few or no patients were registered in the study with the above complaints.

Overall Assessment

Out of 30 patients, 18 patients (60 %) got complete relief followed by 12 patients (40 %) with marked relief. The results on overall assessment showed statistically highly significant effect with P value 0.000.

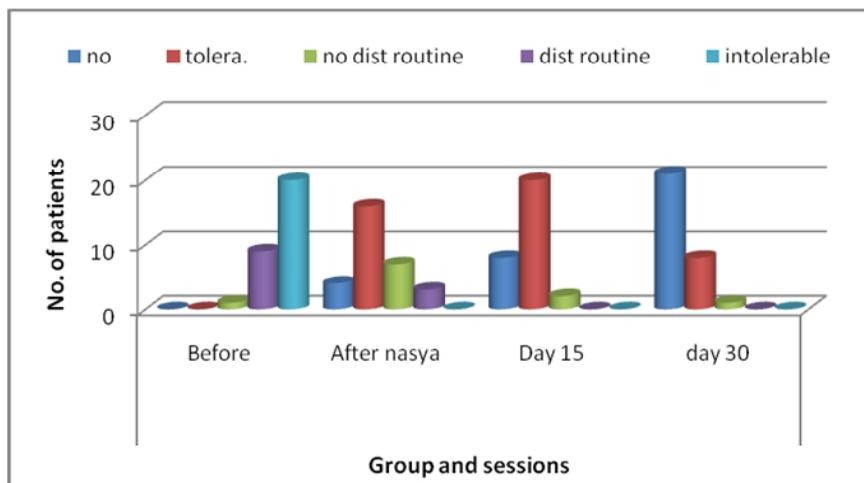


Figure 1: Distribution and results on severity of pain

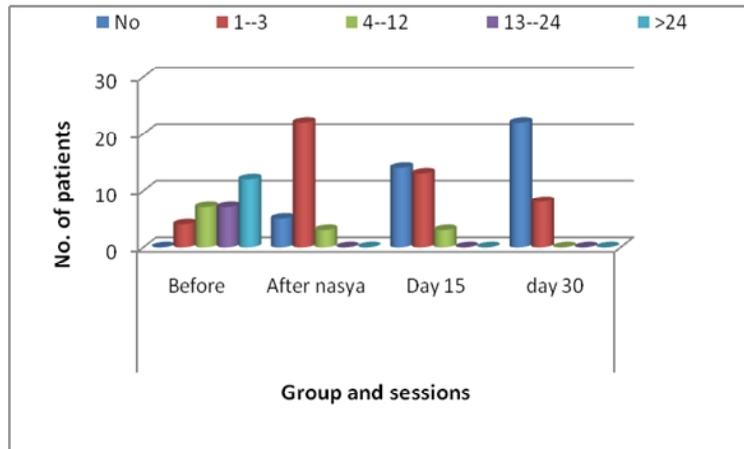


Figure 2: Distribution and results on duration of pain

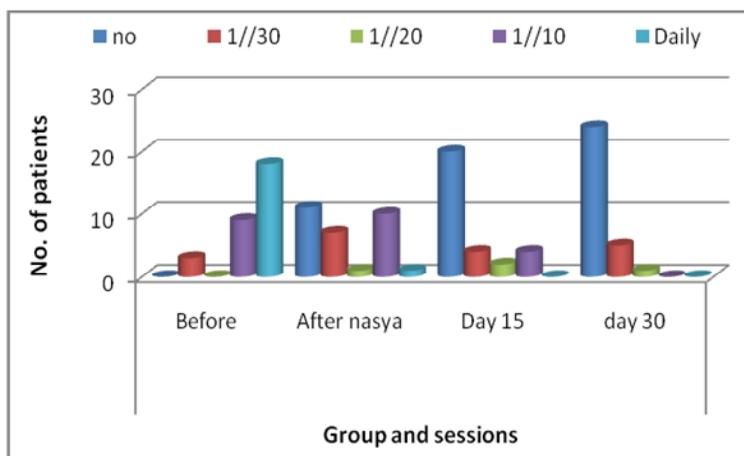


Figure 3: Distribution and results on frequency of attack

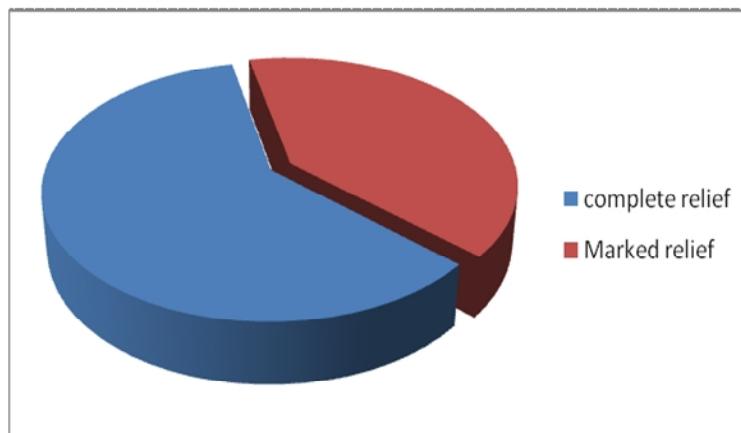


Figure 4: Distribution and results on overall assessment

The result on severity of pain, duration of pain, frequency of attack and overall assessment showed highly significant effect with P value 0.000.

DISCUSSION

Preliminary data

The number of female patients (80 %) was higher than male patients (20 %). This was probably due to the

highest preponderance in female sex as female hormones may trigger / intensify Migraine. The incidence of Ardhavabhedaka was more in housewives (50 %) and majority was between the age group of 16-40 years. This would suggest the hormone fluctuation and also, these categories face many problems in the post marital family tensions, stress etc. Incidence was found to be more in graduates (46.7 %), majority were from urban area (66.7

%) and had chronicity between 4-12 years (63.3 %). This would be because of continuous exposure to more stressful life and also suggests the consciousness in these people about knowledge of triggering factors and also recurrence of disease etc. Maximum number of patients had vata pitta prakriti (43.3 %) and vata kaphaja prakriti (40 %). Probably, it has made patients more susceptible to the diseases due to the predominance of vata dosha.

Nidanas (Triggering Factors)

In majority of the patients i.e., 90 %, 96.7 % and 76.7 %, Ardhavabhedaka triggered by aharaja, viharaja and manasika nidanas respectively. Aharaja nidanas observed in patients were Vishamashana (82.5 %), Adhyashana (76.5 %), Anashana (73.5 %), Rookshahara sevana (65 %) etc. This shows faulty lifestyle, which is accepted by today's generation leading to agnimandya and Tridosha dushti, which contributes chiefly in the pathogenesis of the disease. Viharaja nidanas include Ratri jagarana (30 %) and Diwaswapa (42.5 %). Atapa/dhupa sevana was observed as maximum triggering factor i.e., 86.5 %. Bright lights and other high intensity visual stimuli can cause headaches in patients with migraine headaches. Manasika nidanas include Chinta (77.5 %), krodha (72 %) and shoka (62.5 %) were some which was found to trigger migraine headache. This might lead to Dhatukshaya and vitiation of Vata dosha.

It was observed that there were statistically highly significant and few statistically insignificant results found among various parameters in the study. Those results are discussed as follows.

Probable mode of action of Shatahvadi taila Nasya Karma

- Katu, tikta, kashaya rasa has deepana, pachana, shoshana karma thus providing proper metabolism and ultimately balances agni stiti by carrying out amapachana.
- Laghu, ruksha, teekshna guna, by its property of srotoshodaka acts as urdhwabhaga doshahara and helps in expelling morbid doshas.
- All the drugs possess ushna veerya which does softening and liquefaction of morbid doshas, which ultimately expelled out through virechana action of the drug.
- Shatahvadi taila action is mainly by vata kaphahara, shulagna, shothagna, amlapittahara, raktabhara shamaka and rasayana properties.⁷

Probable mode of action of Tablet Nimbadi guggulu and Mashadi kashaya

The results on severity of pain, duration of pain and frequency of attack would be due to vedanastapaka and amlapittahara (anti-peptic activity) properties of the drugs in Tablet Nimbadi guggulu⁸ and Mashadi kashaya⁹. It might also be due to serotonin levels reducing activity and bioavailability enhancing properties. The results on associated symptoms like,

- Nausea and vomiting due to chardigna and amlapittahara properties of nimbadi guggulu.

- Photophobia, vertigo and phonophobia might be due to raktabharashamaka, nidrajanaka and mastiky property.
- Tenderness and heaviness might be due to nadibalya and vedanastapaka property of mashadi kashaya.

Results on aura, tinnitus, numbness, diarrhea, confusional state showed statistically insignificant results as there were no or few patients registered in the study with the above complaint.

Overall Assessment

In the study among 30 patients, 18 patients (60 %) had got complete relief followed by 12 patients (40 %) with marked relief. The study has shown statistically highly significant result with p value 0.000. Hence Shatahvadi taila Nasya Karma with Tablet Nimbadi guggulu and Mashadi kashaya is very effective in the management of Ardhavabhedaka vi-a-vis Migraine. Highly significant results suggests the action of drugs probably on the neurotransmitters in inhibiting the release of serotonin, adrenaline or by vasodilatation effect etc and thus reversing the chain of pathogenesis.

CONCLUSION

Migraine is an episodic headache disorder, usually characterized by severe pain on one or both sides of the head, stomach upset, nausea, sensitivity to light and sound. Ardhavabhedaka is a vata kapha pradhana shiroroga, the symptom complex of which very well correlates to that of Migraine. Ayurveda enlists various nidanas which includes aharaja, viharaja and manasika factors etc. Endocrinal and hormonal factors are the sole contribution of contemporary science. Most of the nidanas mentioned in our classics go in similarity with migraine triggers, which has an active part in the diagnosis of the condition and as well as in planning the first line of treatment i.e., Nidana parivarjana. The study was an observational clinical study carried out in a single group consisting of 30 patients each. Post-test overall assessment showed complete relief in 18 patients followed by marked relief in 12 patients. The study has shown statistically highly significant results with the p value 0.000 suggesting that Shatahvadi taila nasya karma with Tablet Nimbadi guggulu and Mashadi kashaya is highly effective in the management of Ardhavabhedaka vis-a-vis Migraine.

REFERENCES

1. Braunwald, Fauci, Kasper, Hauser, Longo, Jameson- Harrison's principles of internal medicine, 16thed; 14. p. 85-93.
2. http://www.who.int/mediacentre/factsheets/fs_277/en and Cephalalgia, an international journal of headache the international classification of headache disorders, black well publishers, Vol. 24, supplement Second edition; 2004.
3. http://www.migraines.org/migraine_headache/article.htm and <http://www.nlm.org/healthinfo/docs/062/doc62medicat.html>; 2013.
4. Sushruta: Sushruta Samhita with Nibandha Sangraha commentary of Acharya Dalhana, Edited by Vaidya Jadvji Trikamji Acharya and Narayana Ram Acharya_Kavyatirtha; Published by Chaukhamba Sanskrit Sansthan, Varanasi; Edition 2009; Uttar Tantra. 25/15, p. 1 66-167.
5. Hareeta: Hareeta Samhita; edited. By Sri Jeevananda Vidya Sagar Bhattacharya, Calcutta: 2nd ed.: 1874, trithiya stana 24/10, p. 265-268, dwiteeya stana 1/6, p. 173.

6. Agnivesha: Charaka Samhita revised by Charaka and Dridhabala with Ayurveda Dipika commentary by Chakrapani Datta; Edited by Vaidya Jadavaji Trikanji Acharya; Published by Chaukhamba Prakashan; Varanasi; Edition 2011 Siddhi Sthana 9/74-78; p. 720-721
7. Anonymous, Yogaratnakara with Vaidyaprabha Hindi Commentary by Dr Indradev Tripathi and Dr Daya Shankar Tripathi, Chowkhamba Krishnadas Academy; Varanasi; 2nd Edition; 2007. Shirorogasya chikitsa adhikara:sloka 63, p. 754.
8. Sri Nageen Das Chaganlal Shah Rasavaidya: Bharata Bhaishajya Ratnakara: Jain Publications: New Delhi: 2005 reprint: 3rd Volume, p. 189.
9. Vyakyada DC. Sreeman Namboothiri: Chikitsa Manjari: M Vidyarambham Publications: Allepy; 2008 Edition. p. 538.

Cite this article as:

Shree Vidya P, Shantharam K.S, Gajanana Hegde, Mythrey R. C. Management of Ardhavabhedaka vis-à-vis migraine: An observational clinical study. *Int. J. Res. Ayurveda Pharm.* 2013;4(6):825-830 <http://dx.doi.org/10.7897/2277-4343.04609>

Source of support: Nil, Conflict of interest: None Declared