



## UNIQUE JOURNAL OF AYURVEDIC AND HERBAL MEDICINES

Available online: [www.ujconline.net](http://www.ujconline.net)

Research Article

### A CLINICAL STUDY ON THE MANAGEMENT OF ARDHAVABHEDHAKA VIS-À-VIS MIGRAINAL HEADACHE

Ramachandra Nisargi S<sup>1</sup>, Mythrey RC<sup>2\*</sup>

Reader, Department of Kayachikitsa, JSS Ayurveda Medical College, Mysore  
Assistant Professor, Department of PG Studies in Kayachikitsa, Government Ayurveda Medical College, Mysore

Received 21-09-2013; Revised 19-10-2013; Accepted 18-11-2013

\*Corresponding Author: Dr. Mythrey R.C

Asst. Professor Dept of PG studies in Kaya Chikitsa Govt Ayurveda Medical College. Mysore – 21, Email address- mythreyrc@gmail.com

#### ABSTRACT

Migraine is a common clinical problem characterized by episodic attacks of headache and associated with symptoms such as nausea, sensitivity to light, sound or head movement. Females are 3 times more likely to have Migraine than Males. Migraine may occur at any age, but it is most common between ages 30 and 50. The objective of the study was to assess the combined effect of Shadbindutaila Nasya for 7 days, along with shamana yogas selected for the study i.e abhrakabhasma- prawalapishti- godantibhasma, Shirashuladivajrarasa, Pathyadishadangkawatha in the management of Ardhavabhedaka. 50 patients were assigned in a single group and the intervention was for a period of 48 days. Data was collected before commencement of treatment, after Nasya karma, On 21<sup>st</sup> day, 35<sup>th</sup> day and on 48<sup>th</sup> day of the study period. Results were statistically analyzed before and after the treatment. Significant results were obtained on severity and duration of headache and frequency of attack. Significant relief was found in associated symptoms, and good improvement in stress scores was established at the end of treatment. Overall assessment showed complete relief in 24 patients, marked relief in 21 patients and 5 patients got moderate improvement. The Treatment modality adopted was highly effective on Ardhavabhedaka. Most of the patients experienced maximum benefits at the end of the treatment schedule.

**Keywords:** Ardhavabhedaka, Migraine, Shadbindu taila, nasya, abhrakabhasma, prawalapishti, godantiharatalabhasma, Shirashuladivajrarasa, Pathyadishadangkawatha.

#### INTRODUCTION

By coping up with speed and accurate type of modern lifestyle, people are facing hectic, competitive life, which are making them impossible to take care of their health. Along with this, irregular food habits, suppression of natural urges, lack of proper sleep and less time for relaxation are becoming the part and parcel of life. All these habits together will act as the causative factors for many diseases usually of psychosomatic origin; the commonest among them is Migraine. It is a common disabling paroxysmal headache usually characterized by severe pain on one or both sides of the head with nausea and/or vomiting (stomach upset) and focal neurological disturbance (usually visual).<sup>1</sup> It is far more common in women and there is a hereditary predisposition towards migraine attacks.<sup>2</sup>

The sufferers are usually in the age group of 30- 50 yrs. Ardhavabhedaka can be correlated with Migraine based on the similarity in etiology and symptoms. Treatment of this condition includes use of analgesics and vasodilators which

have found success, but have their own adverse effects. So in order to provide an effective ayurvedic management of ardhavabhedaka, a clinical study was conducted on 50 patients.

#### OBJECTIVES:

- To assess the role of digestive impairment in developing ardhavabhedaka.
- To evaluate the combined effect of Nasya with shadbindutaila<sup>3</sup>, Abhrakabhasma-prawalapishti - godantibhasma<sup>4</sup>, Shirashuladivajrarasa<sup>5</sup>, Pathyadishadangkawatha<sup>6</sup>, in the management of Ardhavabhedaka.

#### MATERIALS AND METHODS

All the medicines mentioned in the objective were procured from Sri Datta Ayurvedalaya, Mysore.

#### Source of Data:

Total 50 Patients of either sex diagnosed to be suffering from Ardhavabhedaka Vis-à-vis Migraine were selected incidentally from Dhanya ayurveda health clinic and

therapeutic yoga centre. Mysore. Patients were assigned in a single group consisting of 50 patients who comes under inclusion criteria.

**Inclusion Criteria:**

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

Shoola in ardha parshwa( Unilateral) of shiras.  
Shula of Bheda/Toda type (Pulsating, throbbing type of pain). Pakshat, Dashahat, Akasmat (Paroxysmal). Prakaasha Asahishnuta( Photophobia).

**Exclusion Criteria:**

- 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., were excluded.
- Patients with status migrainosus, ophthalmic Migraine, hemiplegic Migraine, retinal Migraine, basilar artery Migraine were excluded.
- Other systemic disorders which interferes with the course of the treatment were excluded.

**Diagnostic Criteria:**

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

- Atleast 5 attacks in history.
- Headache attacks lasting 4-72 hours.
- Headache has atleast 2 of the following
  - Unilateral location.
  - Pulsating quality.
  - Moderate or severe pain intensity.
- During headache atleast one of the following
  - Nausea and/or vomiting
  - Photophobia and phonophobia
- Not attributed to another diseases

**Research Design:**

Total 50 patients were assigned in a single group. The study was an observational and single blind with pre and post test design.

**Intervention:**

- Patients were administered with Shadbindutaila Marsha Nasya ( 6 drops in each nostril ) for 7 days.-followed by
1. Tab shirashulavajrarasa 1tid for 48 days.
  2. Pathyadishadangkawatha 20ml bd for 48days.
  3. Abhrakabhasma- Prawlapishti- Godantibhasma mixed

together and administered in a dosage of 250mg Bd with Honey for 48 days.

Two follow-ups were carried out with an interval of seven days after the completion of the treatment.

**Parameters of the study:**

Severity of pain, duration of pain, frequency of attack, associated symptoms of Ardhavabhedaka were the parameters considered, for the assessment of the treatment.

**Table 1: Grading Used to Assess the Symptoms**

Sl. No	Symptoms	Grading
<b>1)</b>	<b>Severity of pain</b>	
	Intolerable pain	4
	Disturbs the routine work	3
	Do not disturb the routine work	2
	Pain tolerable	1
	No pain	0
<b>2)</b>	<b>Duration of pain</b>	
	Over 24 hrs or continuous	4
	13-24 hrs	3
	4-12 hrs	2
	1min – 3hrs	1
	No pain	0
<b>3)</b>	<b>Frequency of attack</b>	
	Continuous/daily	4
	Once in 1-10days	3
	Once in 11-20days	2
	Once in 21-30days	1
	No attack	0
<b>4)</b>	<b>Associated symptoms</b>	
	1 Nausea	Ab/Pr
	2 Vomiting	Ab/Pr
	3 Photophobia	Ab/Pr
	4 Vertigo	Ab/Pr
	5 Tinnitus	Ab/Pr
	6 Aura	Ab/Pr
	7 Phonophobia	Ab/Pr
	8 Numbness	Ab/Pr
	9 Visual disturbances	Ab/Pr
	10 ScalpTenderness	Ab/Pr
	11 Diarrhoea	Ab/Pr
12 Confusional /irritable state	Ab/Pr	

Data regarding the above factors were collected before, during and at the end of the treatment and were statistically analyzed before and after treatment for the improvement in symptoms. Improvement were graded and results were analysed using Chisquare test/configurancy table analysis, descriptive statistics, paired sample ‘t’ test and Paired Sample Correlations.

**RESULTS AND DISCUSSION**

**Table 2: Showing the Incidence of Age and Sex**

Age groups (in years)		SEX		Total
		Male	Female	
16-30	Frequency (%)	8 (42.1%)	12 (38.7%)	20 (40.0%)
31-45	Frequency (%)	5 (26.3%)	14 (45.2%)	19 (38.0%)
46-60	Frequency (%)	6 (31.6%)	5 (16.1%)	11 (22.0%)
Total	Frequency (%)	19(100.0%)	31(100.0%)	50(100.0%)

**Table 3: Showing the Incidence of Symptoms**

Swaroop(symptoms)	Frequency	Percentage
Spandana	35	70.0
Spandana,daha	6	12.0
Spandana,Sphutana	2	4.0
Spandana, toda	1	2.0
Spandana, veshtana	4	8.0
Spandana, manthana	2	4.0
Total	50	100.0

**Table 4: Showing the Incidence of Travelling Sickness**

Travelling Sickness	Frequency	Percentage
Absent	3	6.0
Present	47	94.0
Total	50	100.0

**Table 5: Showing the incidence of Chronicity**

Chronoicity	Frequency	Percentage
Below 1yr	11	22.0
1-10	21	42.0
11-20	12	24.0
21-30	4	8.0
31-40	2	4.0
Total	50	100

**Table 6: Showing the incidence and result on Severity of Pain (SOP)**

Grading		0	1	2	3	4	Total
Before	Count	-	-	-	44	6	50
	% with in BT_SOP	-	-	-	88.0%	12.0%	100.0%
After	Count	24	21	5	-	-	50
	% with in AT_SOP	48.0%	42.0%	10.0%	-	-	100.0%

**P 0.000HS**

Before treatment, Out of 50 patients, 44 patients (88%) had pain which disturbs routine work and 6 patients (12%) had intolerable pain. At the end of treatment, 24 patients (48%) had no pain; 21 patients (42%) experienced tolerable pain and

5 patient (10%) experienced pain which was not interfering their routine work.

The result on severity of pain showed highly significant statistically with P value 0.000

**Table 7: Showing the incidence and result on Duration of Pain (DOP)**

Grading		0	1	2	3	4	Total
Before	Count	-	-	-	44	6	50
	% with in BT_SOP	-	-	-	88.0%	12.0%	100.0%
After	Count	24	21	5	-	-	50
	% With in AT_SOP	48.0%	42.0%	10.0%	-	-	100.0%

**P 0.000 HS**

Before treatment, among 50 patients, 44 patients (88%) had DOP between 13-24 hours; 6 patients (12%) had pain continuous/over 24 hours during attack. After treatment, the DOP was completely reduced in 24 (48%) patients; 21 (42%)

patients remained with DOP between 1min-3hours and 5 (10%) patients experienced DOP between 4-12 hours.

The result on DOP showed highly significant effect with P value 0.000.

**Table 8: Showing the incidence and result on Frequency of attack/ Pain (FOP)**

Grading		0	1	2	3	4	Total
Before	Count	-	2	5	25	18	50
	% with in BT_FOP	-	4.0%	10.0%	50.0%	36.0%	100.0%
After	Count	24	12	12	2	-	50
	% with in AT_FOP	48.0%	24.0%	24.0%	4.0%	-	100.0%

**P 0.000HS**

Out of 50 patients, maximum of 25(50%) patients used to develop FOP between 1-10 days; FOP in 18(36%) patients was continuous/daily; FOP in 5(10%) patients was between 11-20 days and in remaining 2 (4%) patients was between 21-30days. After treatment, 24 (48%) patients did not experience

FOP; 12(24%) patients had FOP between 21-30 days; 12(24%) patients had FOP between 11-20 days and 2(4%) patients had FOP between 1-10 days. The result on frequency of attack showed statistically highly significant with P value 0.000.

**Table 9: Showing the incidence and results on Nausea and vomiting**

			Before Treatment	After Treatment
VOMITING	Absent	Count	12	49
		%(percent)	24.0%	98.0%
	Present	Count	38	1
		%(percent)	76.0%	2.0%
Total		Count	50	50
		%(percent)	100.0%	100.0%

**Symmetric Measures**

		Value	Approx.Sig
Nominal by Nominal	Contingency coefficient	0.604	.000

**P 0.000HS**

Before treatment 38 patients had nausea and vomiting and at the end of treatment period 37 patients got complete relief

from nausea and 1 (2%) patients was not relieved from Nausea and vomiting. The result on nausea and vomiting showed statistically highly significant effect with P value 0.000.

**Table 10: Showing the incidence and results on Photophobia**

			Before Treatment	After Treatment
Photophobia	Absent	Count	-	43
		%(percent)	-	86.0%
	Present	Count	50	7
		%(percent)	100.0%	14.0%
Total		Count	50	50
		%(percent)	100.0%	100.0%

**Symmetric Measures**

		Value	Approx.Sig
Nominal by Nominal	Contingency coefficient	0.656	.000

**P 0.000HS P 0.000HS**

Before treatment all 50 patients had photophobia and at the end of treatment period, 43 (86%) patients got complete relief

and 7 (14%) patients did not get relief from photophobia. The result on photophobia showed statistically highly significant effect with P value 0.000.

**Table 11: Showing the incidence and results on Phonophobia**

			Before Treatment	After Treatment
Photophobia	Absent	Count		47
		%(percent)		94.0%
	Present	Count	50	3
		%(percent)	100.0%	6.0%
Total		Count	50	50
		%(percent)	100.0%	100.0%

**Symmetric Measures**

		Value	Approx.Sig
Nominal by Nominal	Contingency coefficient	0.686	.000

**P 0.000HS**

Before treatment all 50 patients had phonophobia and at the end of treatment period, 47 (94%) patients got complete relief and 3 (6%) patients were not relieved from phonophobia.

The result on phonophobia showed statistically highly significant effect with P value 0.000

**Table 12: Showing the overall assessment after Treatment**

Overall Assessment	Frequency	Percentage(%)
Complete relief	24	48.0
Marked relief	21	42.0
Moderate relief	5	10.0
Total	50	100.0

**Chi- Square test**

Test Statistics	TOTAL- AT
Chi – Square	12.520
Df	2
Asymp.Sig	.002

Out of 50 patients, 24 patients got complete relief from all parameters, 21 patients got marked relief and in 5 patients moderate relief was observed after treatment period. Statistically, the result on overall assessment also showed highly significant effect with P value of 0.002.

**Probable Mode of Action:****ShadbinduTaila**

The ingredients like tilaitaila, Eranda mula, Rasna,yashti, vidanga, Jeevanthi, Bhingaraja and tagara all have vataprashamana, vedanasthapaka property and acts as nervine tonic.<sup>7</sup>

**Mode of Action of Nasyakarma**

In classics, nasa is mentioned as the gateway of Shiras and the drugs administered reaches the Shiras and eliminates morbid doshas responsible for producing the disease. i.e., drug administered through nostrils, reaches Shringataka by taking route of Netra, Shrotra, Kanta, Siramukhas etc.,scrapes the morbid Doshas and extracts them from the Uttamanga.<sup>8</sup>

The mucous membrane of the nose is highly vascular and the drug administered through nose is absorbed by capillaries.Nose, nasopharynx is the most accessible mucous membrane of the body,and are the best absorbing surfaces. The high vascularity of the nose facilitates the absorption, mucous membrane of nose can readily absorb many drugs; digestive juices and liver are bypassed. High lipid solubility for the drug favors its absorption. Mucous membrane absorbs lipophilic drugs. A lipid soluble drug diffuses by dissolving in the lipoidal matrix of the membrane and attains higher concentration in the membrane which diffuses quickly and absorb directly through the lining membrane of cell. Also lipid soluble drugs have delayed action and acts longer.<sup>9</sup>

It is also known that, where any type of irritation takes place in any part of the body, the local blood circulation increases. When provocation of doshas takes place in Shiras due to irritating effect of drug through nasya, it causes an increased blood circulation to brain. Hence, the morbid doshas are expelled out from even a small blood vessels and finally put out by the nasal discharge, tears and by salivation.<sup>9</sup>

By the above mentioned facts, we can assess that the nasya dravyas acts on the central nervous system.

Here, the Shadbindu taila used is highly lipid soluble and probably gets dissolved in the lipid of the cell membrane and based on the properties of the ingredients, they act as tridoshagnata, does preenana of dathus and provides bala of

the same which in turn develops immunity and so the pain subsides.

**Abhrakabhasma-Prawalapishti-Godantibhasma**

Abhrakabhasma acts as tridoshahara, rasayana, medhya, deepaka, paachaka, grahani rogahara,udarashulahara and other jataravyatha nivaraka.<sup>10</sup>

Pravala /Coral/Corallium Rubrum:

Researches proved that coral calcium reduces blood pressure, premenstrual syndrome, vascular headaches and psychiatric disorders. It cures by increasing calcium levels and improves body pH balance<sup>11</sup>. Prawalapishti acts as deepaka paachaka, balya, atisheetala and tridoshahara especially kaphavatahara.<sup>12</sup> Godantibhasma acts on vikruta pitta and kapha doshas and acts as shirashulahara.<sup>13</sup>

Based on these properties,when Abhrakabhasma-prawalapishti-godantibhasma, when administered in combination together, balances the tridoshas, rectifies digestive problems, soothes both body & mind and relieves headache.

**Shirashuladivajra rasa**

The combination of the dravyas in shirashuladivajra rasa is specially indicated in relieving headache. Most of the ingredients present in this gutika are having deepana, pachana, vedanasthapana and shothahara property and acts as balya and rasayana.<sup>5</sup>

**Pathyadishadanga kwatha**

The shat dravyas present in this kwatha are amalaki, hareetaki, bibhitaki,bhunimba,nisha and amrutha. These dravyas together in this combination acts on eyes, sinuses, ears,teeth and head,<sup>6</sup> thereby rectifying the imbalanced doshas as all the ingredients are having tridoshahara property and are rasayana. Intotal the combined use of all the medicines, effectively manages Ardhavabhedaka, by producing doshashamana, vedana shamana, dathu poshaka and dathu balya effects.

**CONCLUSION**

- Migraine is an episodic headache disorder, usually characterized by severe pain on one or both sides of the head. Usually associated with Stomach upset, nausea/vomiting & Sensitivity to light and sound.
- Ardhavabhedaka is a vata pitta pradhana tridoshaja shiroroga, the symptom complex of which very well correlates to that of Migraine.
- This is an observational study, conducted on 50 patients. Among them, maximum numbers of patients

were females and incidence was noticed more in the age group of 16-30years.

- Statistical results on all parameters shows highly significant effect at the end of treatment. The result of Paired sample Correlations on stress shows statistically significant effect with value of 0.019.
- Overall assessment showed that 24 patients got complete relief from headache with all parameters such as severity of pain, duration of pain, frequency of attack and associated symptoms.
- 21 patients got marked relief and 5 patients got moderate relief from the parameters considered in this study. Statistically, the result on overall assessment also showed highly significant effect with P value of 0.002.
- Ayurveda has the Nasya therapy as master key for Shiroroga, a method to rejuvenate the body and mind and to alleviate pain. Shadbindu taila has balya,preenana,brimhana properties which increases immunity of shirapradesha thereby reduces the pain.
- Shirashuladivajrasa relieves headache by its shulahara and rasayana properties.
- Pathyadishadanga kwatha is indicated in shirashula and acts as vedanasthapaka and shothahara.
- Abhrakabhasma-prawalapishti-godantibhasma together normalizes the doshas and helps in providing immunity enhanced health.
- Hence, the combined effect of all the above drugs used, has given the satisfied results in all the subjects.

### REFERENCES

1. Davidson's principle of medicine, Neurological disease, Christopher Haslett, Edwin R. Chilvers, 19<sup>th</sup> ed., Churchill livingstone, 2002, pg-1118.
2. Harrison's principle of Internal medicine, Sec-2, Diseases of central nervous system, Eugene Braun

- Wald, Fauci etal editors, vol-2, 14<sup>th</sup> ed. McGraw Hill Publications, 1998:pg-2308.
3. Chakrapani, Chakradatta, commentary by Dr. Indradev Tripathi shirorogachikitsa prakarana, edited by acharya Ramanathdwivedi, 3<sup>rd</sup> ed. chowkhambha Sanskrit samsthan. Varanasi. 1997 pg-373.
4. Anubhootha yoga.
5. Sri Govinddasa, Bhaishajya Ratnavali, chandraprabhakhyaya commentary, edited by, Sri. Lalchandraji vaidya, 8<sup>th</sup> ed, mothilal Banarsidas, Newdelhi. 1980 pg-688.
6. Sharangadharacharya, Sharangadhara samhita with adhamalla, s deepika & kashiram's gudarhadeepika, madhyamakhanda, chap-2, 4<sup>th</sup> ed chowkhambha orientalia, Varanasi, 2000-pg-162.
7. Prof. P. V. Sharma, Dravyagunavignana, vol-2, chowkhambha Bharathi Academy. Varanasi, 13<sup>th</sup> ed. 1992.
8. Vagbhata Ashtanga Hridaya, Sarvangasundari commentary, sutrasthana 20<sup>th</sup> chap, edited by Dr. Lalchandra vaidya, published by Mothilal Banarsidas, Newdelhi, 2005 pg-156
9. K. D. Tripathi. Essentials of medical pharmacology. Sec-1, general pharmacological principal 6<sup>th</sup> ed. Jaypee brothers medical publishers, 2009. pg-9-20
10. Dr. Siddinandan mishra, Ayurvedeeya Rasashastra, abhraka prakarana, 3<sup>rd</sup> ed. chowkhambha Orientalia, Varanasi, 1992. pg-363.
11. www.medicinenet.com, www.headaches.org.
12. Dr. Siddinandan mishra, Ayurvedeeya Rasashastra, prawala prakarana, 3<sup>rd</sup> ed. chowkhambha Orientalia, Varanasi, 1992. pg-628.
13. Dr. Siddinandan mishra, Ayurvedeeya Rasashastra, godanti prakarana, 3<sup>rd</sup> ed chowkhambha Orientalia, Varanasi, 1992. pg-693.

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