

## A CLINICAL STUDY ON THE ROLE OF NASYAKARMA AND GHRITAPANA IN THE MANAGEMENT OF ARDDHAVABHEDAKA VIS-A-VIS MIGRANOUS HEADACHES

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**Abstract:** A clinical study was conducted on 20 cases presented with classical features of *arddhavabhedaka* (migraine) to evaluate the effect of *nasyakarma* with fresh leaf juice extracted from *Acalypha indica* Linn. (*Haritamanjari*, Nadkarni 1976) along with internal medication of *panchagavya ghrita* (Ayurvedic Formulary of India, Part-I, 1971). Results were highly encouraging. The present study also includes a clinical observation on the role of different contributory factors attributed to the causation of the condition and clinical conditions considered for the differential diagnosis of *arddhavabhedaka* found in classical texts.

### Introduction

*Ardhavabhedaka* – a comparable clinical condition of migraine, is a commonly occurring vascular headache presenting with pain on one half of the head as cardinal feature. It is described as a separate clinical entity in the classics of Charaka and Susruta while Vagbhata included this condition in the classification of *vataja-siroroga*. Pain in one half of the head may also appear as a symptom in various conditions viz. *anyatovata* (*netraroga*), *vata-paryayam* (*netraroga*) and *ardditavata* (*vataroga*).

### Need for alternative therapies

Treatment of this condition available at present includes the use of analgesics and vasodilators. They have insignificant role in achieving success but have adverse effects. Owing to the above problems of management, it is imperative to explore newer, efficacious drugs/procedures to tackle such disease entities. The present study was aimed to establish clinically the effect of internal medication and *nasyakarma* in the management of *arddhavabhedaka*.

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## Historical account

Migraine is as old as civilisation. It was mentioned in an Egyptian papyrus of 1200 BC, and was described by Hippocrates. The best early account was given by Aretaeus of Cappadocia in about AD 130. He has described the headache (usually only on one side of the head), nausea, sickness, dislike of daylight and a feeling of giddiness which may accompany the attack. Half a century later Galen used the Greek word 'hemicrania' (half skull) to describe the one sided headache in this disorder. This word was later corrupted to 'megrin' and then to 'migraine'.

## Definition of migraine

Vagbhata's statement regarding *arddhavabhedaka* runs as follows: *Arddhe tu moorddhanah sosarddhavabhedaka. Vedana* in half of the portion of the head is called *arddhavabhedaka*. A paroxysmal disorder characterised by visual and /or sensory phenomena in an aura associated with or followed by unilateral headache and vomiting. While this definition is satisfactory for 'classical' migraine, there are many patients who never experience an aura and in whom the headache is always bilateral. The single most characteristic and constant feature is that migraine is a paroxysmal disorder, i.e. the headaches occur in attacks, separated by intervals of freedom.

## Synonyms

Hemicrania; bilious attack; sick headache.

## Aetiology

Cerebral: Cerebral ischaemia followed by hyperaemia (spasm of blood vessels followed by dilatation).

Ocular	: Refractive errors
Allergy	: Proteins, tobacco, chocolate, pollen
Psychological	: Mental fatigue, anxiety
Endocrine	: Serotonin
Age & Sex	: Middle age / females

## Complications

Excerebration of this *siroroga* may cause *vinasa of srotra* (loss of auditory function) as well as *vinasa of akshi* (loss of visual function).

## Signs and symptoms

Visual aura: Scintillating scotoma up to ½ hr. duration may be followed by visual field loss contralateral to headache. May have aura without headache.

Prodrome: Hours to days prior to headache.

Psychic symptoms: Irritability, confusion, anxiety, depression, euphoria, alertness, clarity.

Headache: Pulse synchronous, may be like pressure behind eye-radiating to face, jaw, neck and back. Peak pain 1 to 2 hr., nausea and vomiting, rarely diarrhoea, sensitivity to external stimuli – light and sound changes character of headache over time.

Skin pallor: Temporal arteries tender and dilated. Pain may decrease by occluding temporal artery anterior to ear. Most common age of onset 10 to 30 years. 30 to 50% prior to age 15. Headaches usually decrease after age 40; rarely increases.

Severe pain on both sides of *manya*. Pain will be felt in *lalata, akshi, bhru, sankha, karna*, and regions on any one of the sides.

Nature of pain: Pain in *arddhavabhedaka* will be severe as though cutting by a sharp weapon or churning by a churner. Pain (*toda, bheda, bhrama*) is felt in half of *siras*.

Recurrence of the disease: According to Susruta this set of clinical features recurs once in 10 or 15 days.

### Differential diagnosis

Clinical features resembling *arddhava bhedaka* are also found in various other disorders of eye (*netra rogas*), *vata rogas* and also appears as *vegadharanajanya vyadhis* (due to suppression of physiological urges may be considered for differential diagnosis).

### Other syndromes causing *arddhavabhedaka*-like symptoms which are described in ayurvedic classics:

1. *Anyatovata (netraroga)*: Pain in *manya*, *akshi* and *sankha* regions. According to Susruta severe pain is felt at *karna*, *manya*, *hanu*, *greeva*, *netra* and *bhru* regions.
2. *Vataparyayam (netraroga)*: (a) severe pain is felt in *pakshma*, *akshi* and *bhru* regions. (b) *Drishtinasa* is seen as complication.
3. *Adhimantha (netraroga)*: Headache is a predominant symptom especially in *vataja*

type *adhimantha*. (a) *Siroantarvedana*, (b) *netravedana*, (c) *karnanada*, *bhrama* and *lalata bhru vedana*, (d) *Sankha / danta*, *kapola*, *kapalasthi ruja* are seen in *raktaja adhimantha*.

4. *Vataja abhishyanda (netraroga)*: a) *Nistoda*, *stambhana*, *romaharsha*, *sirobhitapa*. (b) Pain is felt at *sankha*, *lalata bhru* and *akshi*.

5. *Ardhitavata (vataroga)*: Pain is felt in half of the portion of face and head with other associated symptoms.

6. Miscellaneous causes: 1) *Arddhava-bhedaka* as *divasvapnajanya dosha*, 2) *Arddhava-bhedaka* in *kshavathu vegadharana*.

### Classification of migraine

- 1) Classical migraine, 2) Common or simple (minor) migraine, 3) Migrainous neuralgia, 4) Abdominal migraine in children, 5) Ophthalmoplegic migraine, 6) Hemiplegic migraine, 7) Retinal migraine, 8) Symptomatic migraine and 9) Facial migraine.

### Model score sheet for assessment in migraine

Clinical parameters		Scores
1.	Headache	60
	Mild relief	40
	Moderate relief	20
	Marked relief	10
	Complete relief	0
2.	Visual aura (Transitory diplopia / scotoma, etc.)	20
	Absent	0
3.	Vomiting / nausea	10
	Absent	0
4.	Paresthesiae (of limb, part of the body, lips, face, etc.)	6
	Absent	0
5.	Weakness (of limb, part of the body, etc.)	4
	Absent	0

## Materials and methods

Type of study: Single blind.

Level of study: OPD.

20 patients presenting with classical features of migraine were randomly selected for the study. Patients with notable visual problems and associated with systemic disorders viz. diabetes, hypertension, etc. were excluded from the study.

## Treatment and dose schedule

*Nasya karma* with fresh diluted juice extracted from leaves of *Acalypha indica* Linn. (three drops in each nostril) was scheduled for seven days repeated at an interval of 15 days along with internal administration of *panchagavya ghrita* 5ml BD before food with hot water for 3 months. All the patients were advised to follow *pathyapathya* schedule (avoidance of aetiological factor).

Table 1. Sex-wise distribution of patients

Sex	No. of patients	Percentage
Male	9	45
Female	11	55

Table 2. Age-wise distribution of patients

Age in years	No. of patients	Percentage
20 - 24	3	15
25 - 29	4	20
30 - 34	7	35
35 - 39	5	25
40 - 44	1	5

## Classification of results

1. Complete relief : 100% relief has been noted
2. Partial relief
  - (a) Marked relief : Relief up to 75% and above
  - (b) Moderate relief : Relief above 50% and below 75%
  - (c) Mild relief : Relief more than 25% but below 50%
  - (d) No relief : No relief or only marginal improvement.

## Observations

Among 20 treated cases 55% are females, (Table 1), 35% belongs to age group of 30 - 34 years (Table 2). 70% are officers (Table 3), 60% belongs to *vataprakriti* group (Table 4). *Vegadharana* was observed as aetiological factor in 90% patients (Table 5).

Table 3. Occupation-wise distribution of patients

Occupation	No. of patients	Percentage
Officers	14	70
Housewives	4	20
Workers	2	10

Table 4. Distribution of *prakriti*

<i>Prakriti</i>	No. of patients	Percentage
<i>Vata</i>	12	60
<i>Kapha</i>	6	30
<i>Pitta</i>	2	10

Headache was found in all the patients (Table 6). Refractive errors were observed in 60% (12) cases (Table 7 & 8).

### Results

Complete relief was found in 25% cases, marked relief in 15% cases, moderate relief in 10% cases, mild relief in 30% cases and no relief was observed in 20% cases (Table 9).

### Discussion and conclusion

Migraine has become a challenging problem to the present day physician. In the present study an attempt has been made to explore some alternative solutions hidden in the classical texts to manage such conditions. Results obtained after the study were highly encouraging and free from adverse effects. In the present

Table 5. Distribution of aetiological factors

Aetiological factors	No. of patients	Percentage
<i>Rooksha ahara sevana</i> (over indulgence of dry foods)	11	55
<i>Atiahara sevana</i> (excessive intake of food)	3	15
<i>Vishamasanam</i> (frequent & irregular intake of food)	17	85
<i>Pravata sevana</i> (exposure to direct breeze)	6	30
<i>Avasya sevana</i> (exposure to snow fall)	3	15
<i>Atimaitihuna</i> (excessive sexual indulgence)	5	25
<i>Vegadharana</i> (suppression of physiological urges)	18	90
<i>Ativyayama</i> (over exercising)	4	20
<i>Uchiarbbhashana</i> (loud speech)	8	40
<i>Seetamaruta sevana</i> (exposure to cold air)	4	20
Unwanted repetition of <i>vamana</i> and <i>virechana karmas</i>	0	0
<i>Atibhaya</i> and <i>krodha</i>	10	50

Table 6. Incidence of clinical features

Clinical feature	No. of patients	Percentage
Headache	20	100
Visual aura	18	90
Nausea / vomiting	19	95
Parasthesia	3	15
Weakness	1	5

Table 7. Incidence of refractive errors

Sl. No.	No. of patients	Percentage
1. Refractive error	12	60
2. No refractive error	8	40

Table 8. Role of different contributory factors at a glance

Sl. No.	Factors	No. of patients	Percentage
1.	Females	11	55
2.	Age 30 - 34 yrs	7	35
3.	Officers	14	70
4.	Vataprakriti	12	60
5.	Vegadharana	18	90
6.	Headache & nausea	20	100
7.	Refractive errors	12	60

Table 9. Results

Sl. No.	Mode of response	No. of patients	Percentage
1.	Complete relief	5	25
2.	Marked relief	3	15
3.	Moderate relief	2	10
4.	Mild relief	6	30
5.	No relief	4	20

scenario *nasyakarma* with *Acalypha indica* and internal medication of *panchagavyaghrita* represent a true alternative method for a problem that has eluded a better solution. The probable mode of action may be the decreased synthesis of *serotonin* and the regulation of cerebral circulation ascribed to the causation of the condition. Still, only long term studies with more number of cases in grater detail will provide a further insight into the subject.

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