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**Review Article** 

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# A CONCEPTUAL REVIEW OF ARDHAVBHEDAKA W.S.R TO **MIGRAINE**

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#### **ABSTRACT**

One of the most frequent complaints that people bring to the outpatient department (OPD) and occasionally the emergency room of a hospital is headache. One of the main symptoms of Ardhavbhedaka, a kind of Shiroroga, is unilateral headache of variable intensity. Several Acharyas have said it among the Shirorogas., There is excruciating pain in half of the skull namely Manya, Shankha, Akshi, Karna, Bhru and Lalaata. The type of discomfort is comparable to that caused by sharp items such as Arani and Shastra. Pain is a subjective experience that varies from person to person. Ardhavbhedaka can cause problems like blindness and hearing loss if it is improperly managed or left untreated (Nayana and Sravana vinasha). Based on the clinical signs and symptoms, this illness can be linked to migraine, a specific kind of

headache. A type of primary headache known as a migraine is characterized by frequent episodes of pulsating headaches, usually accompanied by nausea, vomiting, photophobia, and phonophobia, either with or without an aura.. For those in the 30 to 50 year-old age group, migraine is a serious health concern. With an estimated global frequency of 14.7%, migraine is the third most frequent medical illness worldwide, according to the World Health Organization. In a 3:1 ratio, females are typically more impacted than males.

**KEYWORDS:** Ardhavbhedaka, Migraine, Shiroroga, Headache.

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#### INTRODUCTION

There are 107 Marmas in the human body, and the Pradhan Marma is Shirah.<sup>[1]</sup> Shirah is considered the Uttamanga among all the angas of the sharira, and it is the Ashraya of the Prana and all Indriyas.<sup>[2]</sup>

A lot of description is given in Ayurveda to preserve well- being and control Shirah's ill state. Acharya Charaka has described Shiras under Dashavidha Pranayatamas and three Pradhana Marmas that are the moola of Shareera.<sup>[3]</sup>

According to Acharya Charaka, there are five types of Shirorogas in Sutrasthana, i.e., Vataja, Pittaja, Kaphaja, Sannipataja, and Krimija. He also mentioned four additional Shirorogas, i.e., Shankhaka, Ardhavbhedaka, Suryavarta, and Anantvata, in Siddhisthana.<sup>[4]</sup>

According to Acharya Sushruta, there are eleven types of Shirorogas, i.e., Vatika, Paittika, Kaphaja, Sannipattika, Rattaja, Khayaja, Krimija, Suryavarta, Anantvata, Ardhavbhedaka, and Shankhaka.<sup>[5]</sup>

All the Acharyas have mentioned different numbers of Shirorogas but all of they have mentioned Ardhavbhedaka as one of the Shirorogas. Ardhavbhedaka is mentioned as Tridoshaja by Acharya Sushruta<sup>[6]</sup>, Vata/Vata Kaphaj by Acharya Charaka<sup>[7]</sup>, and Vataja by Acharya Vagbhatta.<sup>[8]</sup>

#### **Definition of Ardhavbhedaka**

The word Ardhavbhedaka is derieved from two words Ardha and Avbhedaka. Ardha means one half or half side.

#### Ava means from within

Bheadaka means breaking, perforating or bursting type of pain. Thus literal meaning of Ardhavbhedaka is bursting or perforating type of pain in one half of the head. According to commentator Chakarpani, it is defined as Ardha Mastaka Vedana.<sup>[9]</sup>

According to Acharya Sushruta, if one half of the head experiences severe tearing and pricking pain, giddiness, and piercing pain suddenly after a month, fortnight, or ten days, this can be diagnosed as Ardhavbhedaka.<sup>[10]</sup>

#### Nidana of Ardhavbhedaka

Nidana Parivarjana which acts as the first line of treatment is very essential for prevention and cure of the disease. Nidana plays an important role in manifestataion of diseases. Various Nidanas are told by different Acharyas for the manifestation of Ardhavbhedaka in classical text.

#### Aaharaja nidana (Dietary causes)

- 1. Excessive intake of *Ruksha Bhojana* (Dry and Coarse food)
- 2. Adhyashana (Excessive intake of meal or eating during indigestion)
- 3. *Anashana*(Skipping meals/Fasting)
- 4. *Atiambupana* (Excessive intake of water)
- 5. *Atimadyapana* (Excessive intake of alcohol)

#### Viharaja nidana (Habitual and Occupational causes)

- 1. Affliction with *Pragavata* (Easterly wind)
- 2. Due to excessive exposure to frost
- 3. Weather changes, High altitude, Barometric pressure changes
- 4. Vega dhrana (Suppression of the natural urges) specially of Mutravega, Purishavega, Kshavathuvega and Nidravega.
- 5. Ayasa (Excessive exercise or Fatigue)
- 6. *Diva Swapna* (day sleeping)
- 7. Ratrijagarana (overnight awakening)
- 8. Atimaithuna (excesive coitus)
- 9. Atibhasya (over talking)
- 10. Asatmyagandha (Bad odour) Staying in unhygienic conditions.
- 11. Hormonal (Menstrual cycle fluctuations, oral contraceptives pills etc.)

#### Manasika Nidana

When psychological stress is involved the migraine attack occurs often.

#### Samprapti Ghataka of Ardhavbhedaka

• **Dosha:** Tridoshaja(Su.Ut.25)

Vata Kaphaja (Ch. Si. 9) Vataja (A.H.Ut.23/7-8)

Srotasa: Rasa-Raktavaha Srotasa

Srotodushti : Sanga, Vimargagamana

Agnimandya: Jatharagnimandya, Rakta Dhatvagnimandya

Udbhava : Amashaya - Pakvashya

• Sanchara: Rasayani

• Marga: Abhyantara

• Svabhava: Ashukari

• Adhisthana: Shirah

• *Vyaktisthana*: *Shirah* and its appendages

#### Purvarupa of Ardhavbhedaka

Though there are no specific *Purvarupas* mentioned in *Ayurvedic* classics for *Ardhavbhedaka*, yet one reference regarding *Purvarupas* of *Shiroroga* In *Madhava Nidana*, general *Purvarupa* for *Shirahshoola* has been mentioned as –Ishat Daha and Supti.

#### Rupa of Ardhavbhedak

- According to Acharya Charaka, the features of Ardhavbhedaka are severe pain in half side
  of the head, affecting particularly neck, eye brows, temporal region, ear, eye and
  forehead. The pain is like cutting by the sharp objects or piercing in nature.<sup>[11]</sup>
- Acharya Sushruta has mentioned severe piercing and tearing pain in one half of the head associated with giddiness. These features appear every fortnightly or ten days or any time.<sup>[12]</sup>
- Acharya Vagbhatta has mentioned Ghata (occipital region according to Indu and Parietal region according to Arundatta) and all the Shirogata Sandhis in addition where the pain occurs. He has also emphasized on its paroxysmal nature and said that it comes in every Paksha (fortnightly) or Masa (Month). The headache subsides by itself i.e., Svayameva Upashamyat. [13]

Ardhavbhedaka can be closely related to Migraine due to its cardinal feature half sided headache. Migraine is a chronic, widespread and intermittent disorder characterised by recurrent headaches with or without aura usually unilateral with different intensity. The headache affects one half of head and are throbbing and pulsating in nature, and lasts from 2 to 72 hours. Changing hormone levels may also play a role as migraine affects more in boys than girls before puberty and two to three times more in women than men. The pain is generally made worse by physical activity. Upto one third of people have an aura typically a short period of visual disturbance that signals that the headache will soon occur. It is highly

prevalent headache disorder over the past decade having considerable impact on the individual and society. It can involve brain, eye and autonomous nervous system. Migraines are believed to be a neurovascular disorder with evidence supporting its mechanism starting within the brain and then spreading to the blood vessels. The neurotransmitter serotonin (5hydroxytryptamine) and hormone estrogens play vital role in pain sensitivity of migraine. Serotonin selectively constricts cranial blood vessels and also induces a massive activation of peripheral nerve endings which play a key role in triggering migraine headache. Estrogens mainly affects female of reproductive age group.

Migraine headaches can be divided into several types but two are the most common types.

- 1. Migraine with aura (Classic migraine)- Aura is a combination of sensations that occur before and sometimes during the pain of migraine. Aura means wind and just like the wind is a sign of approaching strom, an aura serves as a warning of approaching migraine. Auras may include blurry vision, blind spots, bright flashing lights, temporary vision loss, wavy or jagged lines, numbing or tinghog of the skin and muscle weakness.
- 2. Migraine without aura (Common migraine)-This type of migraine is very common and does nothave any warning signs but some people may still feel some symptoms and indicate a migraine is coming. The pain of the migraine attack is still severe and nausea or vomiting might happen.

#### Other types of Migraine

- 1. Migraine without aura
- 2. Migraine with aura
- 3. Opthalmoplegic Migraine
- 4. Retinal Migraine
- 5. Childhood periodic syndromes that may be precursors or be associated with Migraine.
- 6. Migraine with complications including status migrainous and migrainous infarction.

#### **DISCUSSION**

Migraine Research Foundation considers migraine as the 3<sup>rd</sup> most prevalent illness and 6<sup>th</sup> most disabling health illness in the world. Migraine sufferers have a high chance of having depression, anxiety, sleep disorders, restlessness. In contemporary science, management of migraine is prophylactic only. But in Ayurveda, the management of disease is based mainly on the principle of Samprapti vighatana. Specific line of treatment for Ardhavbhedaka has been mentioned in our classical literature.

The treatment principle mainly lies on nidanaparivarjana, shodhana and shamana chiktsa which cause samprapti vighatana.

Maximum nidanas show the predominance of Vata dosha. Vata gets provoked by repeated exposure to dry food items, exposure to Eastern wind leads to constriction of blood vessels due to Sheeta guna of vata causing headache, suppression of natural urges obstructs the natural movement of Vata. Various types of pain like Toda, Bheda etc in Ardhavbhedaka(Migraine) also suggestive of Vishama guna of Vata Dosha involved in the samprapti of Ardhavbhedaka(Migraine). According to Acharya Sushruta, Nidanparivarjan is the first line of treatment, so all the causative factors producing headache should be avoided.

#### Samshodan Chikitsa

Shirovirechan or Nasya Karma is advised as an important treatment modality by different Acharyas in Shirorogas. [14]

#### Vishista Chikitsa for Ardhavabhedaka

The treatment principles mentioned for Ardhavabhedaka can be grouped under the following headings:

#### ACCORDING TO ACHARYA SUSHRUTA<sup>[15]</sup>

- Nasya Karma
- Diet of Jangala mamsa and preparations of Ksheera, anna, ghrita
- Avapedana nasya with, Sirisamulaka andphala, Vamsamula and karpoora, Vacha and Magadhika(Pippali), Yastimadhu and Madhu, Manahshilaalone or with chandana and madhu. At the end of avapeedana, nasya to be done with murva and ghrita
- Lepa with sariva, utpala, kusta, madhukam, amlapeshita mixed with ghrita and taila.

### ACCORDING TO ACHARYA CHARAKA<sup>[16]</sup>

- Chatur-sneha(ghrita+taila+vasa+majja) in uttama matra
- Shirovirechana
- Kaya virechana
- Nadi sweda
- Niruha anuvasana basti
- Upanaha
- Shirobasti

• Dahana (Agnikarma)

# ACCORDING TO ASTANGA HRIDAYA<sup>[17]</sup>

- Nasya Karma with Sirisabeeja, apamarga, bidalavana, Saliparni swarasa
- Lepa with prapunnata bija kalka and amra
- Vatajashirashoola line of chikitsa

# ACCORDING TO ASTANGA SANGRAHA<sup>[18]</sup>

- Nasya with nirgundi patra swarasa, Saindhava, ghrita
- Nasya with sirisamula and phala
- Lepa with sariva, utpala, kusta, vacha, madhuka, pippali mixed with taila

### ACCORDING TO YOGARATNAKARA[19]

- Snehapana with Ghrita
- Sthanika Snehanam, Swedanam
- Kaya Virechana, Dhoopana
- Snighda ushna bhojana
- Internally ksheera and ghrita everyday
- · Nasya Karma with
- i. Vidanga and KrishnaTila
- ii. Ksheera and ghrita
- iii. Girikarnikadhi phala and moola + jala
- iv. Girikarnika moola for karnabandhana
- v. Sithophala navana nasya
- vi. Bhringaraja+ goat milk in equal quantity
- vii. Sirisamoolaka and phala for avapeedana nasya
- Dhupana with Jangalamamsa
- Lepa with Sariva, Shunti, Krishna tila and vidanga
- Marichadhi yoga

### ACCORDING TO BHAISAJYA RATNAVALI<sup>[20]</sup>

- Virechana with Yavakshara + ghrutha + virechaka aushadhi
- Nasya Karma with:
- a) Vacha + Magadhi (Avapeedana)
- b) Dugdhotha Ghrutha

- c) Ghrutha of kruthamala pallava + apamarga beeja churna
- d) Dashamula + ghrutha + saindava
- e) Shireeshabeeja and mula avapeeda nasya
- f) Mahamayura ghruta
- g) Shigru maricha teekshna nasya
- h) Brungaraja swarasa avapeedana
- i) Sharkara jala
- j) Sharkaramishrita narikelajala
- k) Sheeta jala
- 1) Vidanga + Krishna tila
- m) Burnt mud + Maricha
- Upanaha with Jangalamamsa + vatahara dravya
- Lepas with following drugs
- i. Sarivadi lepa
- ii. Madana + vasa
- iii. Saindava + tila taila (ushna lepa)
- iv. Krishna tila + jatamamsi churna + saindava + madhu

## ACCORDING TO BHELA SAMHITA[21]

- Nasya karma- Karpasa bija, masha, godhuma, sarsapa, yava with ksheera for Nasya.
- Dwipanchamoola with ksheera for Nasya.
- Nadi sweda
- Ushna Upanaha with ksheera siddha aushadhi
- Uttama matra of Ghrita, taila or vasa should be given based on yukti

### ACCORDING TO HARITA SAMHITA<sup>[22]</sup>

• Kumkumadi ghrita nasya – Kumkuma, Yasti, Kusta, Sharkara, Navaneeta

## ACCORDING TO BHAVAPRAKASHA<sup>[23]</sup>

- Snehana, swedana, kaya virechana, dhoopana
- Snighdha usna bhojana
- Internally ksheera+ sarkara, narikelajala
- Sheetajala paneeya
- Ghrita internally
- Nasya karma

# ACCORDING TO SARANGADHARA SAMHITA<sup>[24]</sup>

Kumkuma Nasya

### ACCORDING TO CHAKRADATTA<sup>[25]</sup>

- Kumkuma lepa
- Nasya with dashamoola kwatha

There are various modalities mentioned for the alleviation of Ardhavbhedaka in the classical texts. Broadly Ayurveda treatment is mainly of two types- Shodhan chikitsa and Shaman Chiktsa. Between them, Shodhan chikitsa has been given more importance than Shaman chikitsa because the doshas expelled through Shodhan do not visicate easily again as they are expelled from the roots, so there are less chances of recurrence of disease after shodhan. Only herbal medications or other topical procedures are not enough for the treatment of Ardhavbhedaka (Migraine) patient. First of all Shodhana Karma is required for purification of vitiated Doshas such as Mridushodhan, Nasya, Basti, Shirobasti, Shirolepa, Shirodhara etc. and other internal medications are planned as per vitiated doshas.

As per the different researches carried out, in Ardhavbhedaka Virechan Karma and Nasya Karma are the two treatment modalities under Shodhan chikitsa which are found very effective.

Virechan karma is indicated in Shiroroga by all the Acharyas..Mriduvirechan is advised due to vitiation of Vata dosha in Ardhavbhedaka.

Nasya karma is the best treatment for the Shiroroga according to Acharya Charaka because nose is the nearest pathway for the elimination of Doshas from the head. In Ardhavbhedaka morbid doshas are situated in the head, so Nasya with Brihat Dashmool Taila, Anu Taila, Shadbindu Tail etc are found effective.

Migraine treatment is prophylactic in contemporary science. But in Ayurveda treatment can be achieved by avoiding various triggers, prescribing Dosha-specific diet, stress management, lifestyle modification, herbal formulations and other holistic modalities to bring complete relief to Ardhavbhedaka (Migraine) patients.

#### **CONCLUSION**

The frequent use of medications like analgesics in migraine headache may provide

symptomatic relief to the patient but on prolonged use it may cause side effects like gastric discomfort.

But Ayurveda provides a striking solution to this problem. The treatment prescribed by Acharyas for Ardhavabhedaka in Ayurveda has proven to be effective in the prevention and management of Ardhavabhedaka. Migraine can be controlled by following the ethical regimen mentioned in the classical texts, including the use of pathya-apathya and medhya rasayana as well.

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