

Understanding of Ardhavabhedaka W.R. to Migraine

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ABSTRACT

“In *Ayurveda*, “*Shiraso uttamangatvam*” emphasizes the head as a paramount organ, integral to the body's primary centers, or *trimarma*, necessitating meticulous care and protection. The head is the foundation of the body, housing critical sensory organs like the eyes (*netra*), ears (*karna*), nose (*nasa*) and tongue (*jihwa*). *Ardhavabhedaka*, classified among the *shirorogas* (head diseases) by ancient *Acharyas*, is a condition where various causative factors such as excessive intake of dry foods, irregular eating habits, exposure to cold, sexual activity, suppression of natural urges, and physical exertion can vitiate *Vata* alone or in conjunction with *Kapha*. This leads to severe, one-sided headache affecting regions like the neck (*manya*), brows (*bhru*), temples (*sankha*), ears (*karna*), eyes (*akshi*) and forehead (*lalata*). The pain is often described as sharp, cutting, or churning and if aggravated, it can severely impact vision (*nayana*) and hearing (*shrotra*).

Migraine, a multiplex and often misunderstood neurological disorder, presenting with pulsating type of headache confined to either side of the head, lasting between 4 to 48 hours. It is accompanied by symptoms such as nausea, vomiting, photophobia - sensitivity to light and phonophobia – sensitivity to sound and a throbbing pain which can hampers routine activities of the affected individual. The symptoms of Migraine parallels with *Ardhavabhedaka* suggest a strong correlation, providing a comprehensive understanding of this exhausting condition through the vision of *Ayurveda*. By identifying and managing the *nidanans*, the causative factors outlined in *Ayurvedic* texts, it is possible to reduce the severity and impact of migraine, thereby enhancing overall quality of the life of the affected individual.

Keywords: Shiroroga, Ardhavabhedaka, Migraine

INTRODUCTION:

In *Ayurveda*, the “*Shiras*,” holds a uppermost position among the body's organs, emphasized by the quotation “*yad uttamangamanganaam shiras abhidheeyate*,”¹ which highlights its principal importance. *Acharya Sushruta*, *Charaka* and *Vagbhata* have offered extensive classifications of head-related ailments, known as *Shiro Roga*. *Sushruta* identified 11 types², *Charaka* enumerated five³ and *Vagbhata* detailed ten types of *Shirogata Roga* along with nine types of *Kapala Gata Roga*⁴. Notably, only *Sushruta* and *Vagbhata* included *Ardhavabhedaka*, a condition akin to modern-day migraines, in their classifications. According to *Acharya Sushruta*, the imbalance of the three *doshas*—*Vata*, *Pitta*, and *Kapha*—underlies

Ardhavabhedaka. In contrast, *Acharya Charaka* ascribed the condition to *Vata* or a *Vata* and *Kapha*, while *Acharya Vagbhata* opines that it is solely due to vitiated *Vata dosha*.

From a long time ago, headaches have troubled humanity, presenting a common yet complex affliction with diverse manifestations.

Ardhavabhedaka is characterized by symptoms such as intense, unilateral throbbing pain, sharp stabbing sensations, dizziness and intervals of recurrence, typically every 10 to 15 days, without any apparent cause. *Ayurvedic* treatment principles for this condition include *Swedana* (sudation therapy), *Nasya* (nasal administration of medicated oils), *Lepa* (application of medicinal pastes), *Upanaha* (therapeutic poultices) and *Siravyadha* (bloodletting), utilizing drugs with pain-relieving (*Shulahara*) properties.

In contemporary medical terms, *Ardhavabhedaka* can be correlated with Migraine—a form of headache marked by throbbing pain along the arteries, either unilateral or bilateral, occurring in paroxysms. Migraines vary in frequency and duration and are often accompanied by nausea and vomiting. These headaches are self-limiting, recurrent and can cause sensory-motor disturbances and autonomic symptoms. According to the World Health Organization (WHO), migraines affect 14.7% of the global population, making them the world's third most prevalent medical condition and the second most common cause of headaches. Significantly higher incidence is seen in women (28.1%) when compared to men (9.0%). The highest prevalence rate is observed among young to middle-aged adults, between the age group of 30 to 39. Migraines can lead to social impairment and considerable loss of productivity in the workplace as it disturbs the affected individual severely when the pain is severe, resulting in substantial socioeconomic impairment.⁵

Understanding the knowledge enrooted in *Ayurveda* alongside modern medical insights provides a comprehensive approach to manage the Migraine, aiming to alleviate the profound impact they have on the affected individuals and society.

***Ardhavabhedaka* according to different *Acharyas*^{6,7,8}**

According to *Acharya Sushruta*, *Ardhavabhedaka*, or what we would now recognize as Migraine, manifests as severe, unilateral pain that feels as if the head is being split, pricked, or churned. This intense pain typically occurs in intervals of either ten or fifteen days, arising without any apparent cause.

According to *Acharya Charaka*, *Ardhavabhedaka* arises from the vitiation of *Vata dosha*, either alone or in combination with *Kapha dosha*. This imbalance is triggered by factors such as excessive intake of *Ruksha ahara*-dry food, *Adhyashana* - improper eating habits, *Avashyaya* - exposure to cold winds, *Maithuna* - sexual activity, *Vega Sandharana*- suppression of natural urges, and *Vyayama* - strenuous physical activity. Because of these *nidanans* there will be vitiation of *doshas* causing the disease *Ardhavabhedaka* which is severe, unilateral pain that seizes half of the head - *Ardha ghruhitwa shirasatata*, affecting areas like the neck - *Manya*, eyebrows - *Bhru*, temples - *Sankha*, ears - *Karna*, eyes - *Akshi*, and forehead - *Lalata*. The pain is described as sharp and cutting, similar to being pierced by a *Shastra* or churned by a pestle *Araninibha*. If it aggravates -*Ativruddhi*, the condition can lead to the deterioration of vision and hearing *i.e.*, *Nayana-shrotra vinashana*.

According to *Acharya Vagbhata*, *Ardhavabhedaka*, characterized by severe pain in one half of the head, manifests at intervals of either a fortnight or a month. The intense pain caused by vitiated *Vata dosha* often subsides on its own without any specific intervention. However, when the condition aggravates, it can lead to serious complications, potentially impairing the function of the eyes or ears.

***Ardhavabhedaka chikitsa* according to different *Acharyas*:**

Acharya Sushruta's advises *Avapeedana Nasya* (nasal medication to alleviate pain) and the *yogas* are:

- *Sirisha* and *mulaka*
- *Vamsha*, *mulaka* and *karpura*
- *Vacha* and *magadhika*
- *Madhuka* and *madhu*
- *Manashila* with *madhu*
- *Chandana* with *madhu*

Suryavarta chikitsa (treatment for disorders affecting the joints) principles are integrated into the treatment regimen, along with *Nasya Karma* (nasal therapy) utilizing *jangala mamsa* (flesh of wild animals) and preparations of *ksheera*, *anna* and *ghrita* (milk, rice and ghee).

Lepa treatments involve a mixture of *sariva*, *utpala*, *kushta*, *musta* and *amlapeshita* with *ghrita* and *taila*.⁹ **Acharya Charaka's** guidelines advocate for *Chatur Sneha* in *uttama matra* and therapies such as *Shirovirechana* (cleansing of the head) and *Kayavirechana* (cleansing of the body). *Nadi Sweda* (sudation using steam) and *Niruha-Anuvasana Basti* (enema with decoctions) are recommended, along with *Upanaha* (poultice) and *Shiro Basti* (retention of medicated oil on the head) techniques. *Agni Karma*, known as *Dahana* (cauterization), is also employed in treatment protocols.¹⁰

Acharya Vagbhata emphasizes *Nasya Karma* with herbs like *sirisha beeja* and *nirgundi patra swarasa*, alongside *Lepa* formulations with *sariva*, *utpala*, *kushta*, *vacha*, *madhuka* and *pippali* mixed with *taila*.¹¹

Acharya Yogaratnakara's approach involves:

Snehana and *swedana* has to be done first

Siravyadha

Navana:

- *Ksheerasarpi*
- *Sirisha*, *mulaka phala*
- *Avapeedana nasya*: *vacha* and *pippali*
- *Girikarniphala mula siddhajala nasya*
- *Sarpi*
- *Ghrita bhushtha sitopala* with *madana* and *gopaya*

Upanaha – *jangala mamsa*

Karna bandha – *girikarnika mula*

Virechana: *Ksheera* and *ghrita*

Dhupa

Pana - *Bhojana*:

- *Snigdha ushna bhojana*
- *Shashamunda rasa* with *maricha churna*
- *Ksheera sharkara yoga* – *sharkara* mixed with *narikela* or *ksheera*
- *Sheetala jalapana*

Lepa:

- *Vidanga*, *tila*, *krishna*
- *Maricha* with *bringaraja rasa*
- *Maricha* with *shali tandula*
- *Lepa dravyas* has to be applied with *shunti jala*
- *Sariva*, *utpala*, *kushta*, *madhuka*, *amlakanji*, *sarpi*, *taila*

If the above treatment principle is followed properly the person will get rid of headache within 7 days without fail.¹²

Acharya Chakradatta explains the following treatment:

Nasya:

- *Dashamula kwatha, sarpi* and *saindhava*
- *Sarpi*

Lepa:

- *Kumkuma lepa* containing drugs like *ghrita bhrushta kumkuma* with *sharkara*
- *Sarivadi lepa* containing drugs like *sariva, utpala, kushta, madhuka, amlakanji, sarpi, taila*

Upanaha with *jangalamamsa*

Ksheera sharkara yoga – sharkara mixed with narikela or ksheera

Sheetala jalapana¹³

These protocols aim to restore, balance and promote holistic well-being in alignment with *Ayurvedic* principles.

Migraine

Migraine is a genetic condition marked by recurring headaches that can vary greatly in intensity, frequency and duration. This condition is generally benign, presenting as throbbing headaches that may affect one or both sides of the head. Migraines often come with additional neurological symptoms such as sensitivity to light (photophobia), sensitivity to sound (phonophobia), loss of appetite, nausea and vomiting. There are many factors which can trigger the disease migraine which can be considered as physical and mental stress, disturbances in sleep patterns and certain foods like chocolate and cheese. Relief from migraine symptoms is usually found through rest, sleep and being in a dark and quiet environment. Women are twice as likely to experience migraines as men, a difference can be attributed to hormonal variations particularly involving estrogen. Migraines are believed to have a neurovascular origin and are considered as a disorder of sensory regulation involving the trigemino-vascular system and the central nervous system's modulation of cranial pain-producing structures. Additionally, a defect in neurotransmitters such as serotonin is thought to play a role in the development of migraines.

There are different types of Migraines each with unique symptoms:

1. **Classical Migraine:** There will be severe throbbing pain on either side of the head, often followed by visual disturbances called aura, which lasts for 15 to 20 minutes. These visual symptoms can include seeing shimmering zig-zag lines or star-shaped figures. Other symptoms can be nausea, light sensitivity, tingling and numbness.
2. **Common Migraine:** It involves a severe headache that can last from several hours to 1-2 days, associated by nausea, vomiting and loss of appetite. There is no aura or warning signs before the occurrence of headache.
3. **Basilar Migraine:** Characterized by a headache with visual disturbances in both eyes. It can also include symptoms of vertigo, tinnitus and difficulty with coordination. It is more common in adolescent girls.
4. **Ophthalmoplegic Migraine:** Typically children under 10 years old will be affected and involves weakness of the eye muscles. It often resolves on its own.
5. **Complicated Migraine:** These migraines are associated with neurological deficits, such as difficulty in moving or speaking, that last more than 24 hours after the headache.
6. **Retinal Migraine:** Involves headaches accompanied by temporary vision loss in affected eye.

7. **Migraine Equivalent:** This type involves the aura symptoms without the headache. It can include abdominal pain and is a variant of typical migraines.
8. **Cluster Headache:** There will be severe, one-sided headaches that occur in clusters, happening several times a day for several days or weeks. These headaches are often worse at night and also it can be triggered by alcohol.
9. **Menstrual Migraine:** Occurs in some women during their menstrual cycle, starting from two days before to the end of menstruation.
10. **Hemiplegic Migraine:** Associated with temporary paralysis on one side of the body (hemiplegia) that lasts longer than the headache itself.

Diagnosing a migraine involves many steps. Initially, a detailed history is taken to understand the patient's symptoms and their frequency. This is followed by a cranial nerve examination to check for any neurological deficits. Orthopaedic tests may be conducted to rule out other potential causes of headaches. Additionally, a complete blood count (CBC) and urine analysis are performed to identify any underlying conditions. Finally, a cranial MRI is often recommended to get a detailed image of the brain and rule out other serious conditions associated which can cause or trigger the disease.

There are many measures in approaching Migraine w.r.to management. Firstly, general measures aim to avoid triggers such as certain foods (like coffee, chocolate and alcohol), bright lights, loud noises and stress. Prophylactic treatment may include medications like beta-adrenergic blockers, calcium channel blockers, or amitriptyline to prevent attacks. For acute attacks, medications like sumatriptan or NSAIDs can be used, along with analgesics and antiemetics for symptom relief.^{14,15,16}

DISCUSSION

Ardhavabhedaka, as described by various *Ayurvedic* scholars, is recognized as one of the eleven types of *Shiroroga*. It manifests as a recurring headache characterized by varying intensity, frequency and duration, often unilateral and accompanied by symptoms like vertigo, nausea and vomiting, sometimes with aura. The above presentation closely resembles the cardinal features of the disease Migraine, commonly known as "half-sided headache."

The predominance of *Vata dosha* is observed in many cases, often attributed to the *nidanas* as explained earlier leading to vitiation of *Vata dosha*. The condition may involve a combination of *Vata-Kaphaja*, or purely *Vataja* imbalances, resulting in disturbance of *Rasa* and *Rakta* leading to vascular dysfunction, as clearly noted by *Acharya Charaka*.

Ardhavabhedaka shares similarities with Migraine in terms of symptoms such as bursting, pricking and throbbing pain, along with half-sided headache, anorexia, nausea, vomiting, photophobia and phonophobia. Treatment principles also overlap to some extent, including avoidance of triggering factors, hot fomentation, topical applications and massage therapy. However, while *Ayurvedic* treatment emphasizes balancing *doshas* and improving overall health, conventional Migraine management often involves medication to stabilize vascular reactions, block mediators and manage symptoms. Despite these differences, the commonalities in symptoms and treatment approaches suggest a parallel understanding of these conditions in traditional *Ayurveda* and modern medicine.

CONCLUSION:

The comparison between *Ardhavabhedaka* and Migraine emphasizes the meticulous understanding of *shirorogas* in both *Ayurvedic* and modern medical perspectives. The impact of *Ardhavabhedaka*, is similar

to Migraine, extends beyond physical discomfort, profoundly affecting individuals' quality of life and productivity. The debilitating nature of recurrent headaches associated with nausea, vomiting and sensitivity to light and sound, imposes significant limitations on daily activities and social interactions. Moreover, the chronicity and unpredictability of these episodes can lead to emotional distress, anxiety and depression which can affect the affected individual w.r.to socio-economic health.

Recognizing the emotional consequences of *Ardhavabhedaka* underscores the importance of comprehensive care approaches that address not only symptom management but also psychological well-being and lifestyle modifications. Finally the integrated approach holds promise in enhancing treatment outcomes and promoting long-term wellness for individuals struggling with the challenges of *Ardhavabhedaka*.

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