



Ayurvedic Management of Migraine (*Ardhavabhedaka*) with scintillating scotoma- A case report

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ABSTRACT: Migraine is a neurological and a primary headache disorder. It is the second most common cause of headache after tension-type headache. It is estimated to affect 16.6% of the world's population, with women being three times more likely to experience it than men. It is an episodic headache associated with certain features such as photophobia, phonophobia, or movement. Nausea and vomiting often accompany the headache. A Migraine can cause severe throbbing pain or pulsating sensation, usually on one side of the head lasts for hours to days, and the pain can be so severe that it interferes with daily activities. Even after recent advancements the complete cure of Migraine is still under question.

A 30-year-old female patient presented with complaints of right sided head ache with scintillating scotoma for one day. She had a history of similar episodes for the past one year. The symptoms were intermittent, mostly associated with menstrual cycles and was closely related to *Tridoshaja Ardhavabhedaka* with *Pitta* predominance.

After a detailed assessment of the patient, the treatment was meticulously planned based on the patient's *Dosha predominance* and *Vyadhi avastha* (stage of disease). *Nidana parivarjana* (abstinence from the etiopathological factors), *Deepana*, *Paachana*, *Dosha Shamana* and *Soolahara* principles were adopted for attaining proper *Samprapti vighatana*. Further, the disability caused by Migraine was assessed by MIDAS score. Additionally the severity, frequency, duration of head ache and Aura were assessed after completion of the therapeutic intervention and 45 days of follow up period.

KEYWORDS: Ardhavabhedaka, Migraine, Pathyashadanga kwatha, Scintillating scotoma.

INTRODUCTION

Migraine is a complex disorder characterized by recurrent episodes of unilateral throbbing or pulsatile headache associated with nausea, vomiting, photophobia or phonophobia. It is the second most disabling disease in the world according to the World Health Organization.^[1]

Globally, it is approximated that 15% of people are affected by Migraine. In the Global Burden of Disease Study of 2010, it was ranked as the third most prevalent disorder in the world. The World Health Organization (WHO) has identified Migraine among the world's top 20 leading causes of disability.^[2]

The onset of Migraine is most commonly between 15 to 24 years of age, and occur most frequently in those 35 to 45 years of age. In children, the condition is slightly more common in boys before puberty. During

adolescence, Migraine become more common among women and this persists for the rest of the lifespan, being twice more common among elderly females than males. It afflicts approximately 19% of women and 11% of men.^[3]

Migraine prevalence also varies by race and geographic region. A meta-analysis has shown that prevalence is lowest in Africa and Asia, and highest in North America.^[4]

For some people, a warning symptom known as an aura occurs before or with the headache. An aura can include visual disturbances, such as flashes of light or blind spots (scotoma) or other disturbances, such as tingling on one side of the face or in an arm or leg, Heaviness of legs, difficulty in speaking and vertigo. The most common positive visual phenomenon is the scintillating scotoma. This consists of an arc or band of absent vision with a shimmering or glittering zigzag border. The disturbance begins in the paracentral area, and gradually enlarges and moves across the hemifield, eventually breaking up and resolving. It is often combined with photopsias (uniform flashes of light) or visual hallucinations^[5]

Migraine can often be recognized by its activators, referred to as triggers. The brain of the migraineur is particularly sensitive to environmental and sensory stimuli; migraine-prone patients do not habituate easily to sensory stimuli. Headache can be initiated or amplified by various triggers, including glare, bright lights, sounds, or other afferent stimulation; hunger; excess stress; physical exertion; stormy weather or barometric pressure changes; hormonal fluctuations during menses; lack of or excess sleep; and alcohol or other chemical stimulation. Knowledge of a patient's susceptibility to specific triggers can be useful in management strategies involving lifestyle adjustments.^[6]

Migraine can be correlated with *Ardhavabhedaka* because of the similarities in their key features such as half sided headache and paroxysmal nature. According to *Acharya Susruta*, *Ardhavabhedaka* is a disease in which one half of the head experiences severe tearing, pricking, and piercing pain with giddiness that occurs suddenly, fortnightly or in a gap of ten days due to the vitiated three *Doshas*.^[7] *Ardhavabhedaka* is mentioned by *Acharya Vagbhata* under *Vataja Shiro Roga*, which occurs in one half of the head, recurs every fortnight or month, and subsides on its own. When severely aggravated, it impairs vision and hearing^[8]. In modern science number of medicines like NSAIDs, Beta-blockers, Antiepileptics, Antidepressants, Beta-blockers etc. have been tried in the management of Migraine as abortive and preventive therapy, but permanent solution is still under question^[9]. All these medications have many drawbacks, and their continued use leads to drug dependency, drug withdrawal syndrome and gastric, nephrotic and hepatic complications. While Ayurveda describes *Pathyashadanga Kashaya* as a promising formulation for migraine management, as most of its contents have *Vedanasthapana*, *Tridosahara*, analgesic and anti-inflammatory properties.

PATIENT INFORMATION

A 30-year-old female patient presented with complaints of flickering vision in the right eye and head ache over right frontal region for one day. She had a history of similar episodes for the past one year. The symptoms were intermittent, sometimes affecting the left side and at other times the right side.

On detailed assessment, the visual disturbance usually appeared in the evening and persisted for 1–2 hours, after that she develops head ache which is pulsatile in nature. It is not associated with photophobia or phonophobia, nausea or vomiting. The head ache usually persist for 3 days, during this period she is not able to do any works. Sometimes she develops only visual problem without any attack of head ache, which resolves itself after 1 to 2 hours. The episodes were most often associated with the menstrual period. Other aggravating factors included skipping meals and stress. She has some relief after taking sleep.

Personal history revealed reduced appetite, decreased bowel frequency (once in two days), and disturbed sleep. Micturition was normal. She took consultation from Ophthalmic hospital but didn't get any relief. After that she was advised to take MRI and it was found to be normal. After 1 month she came here for the same

complaint and after taking the detailed history it is diagnosed to be a case of Migraine with scintillating scotoma.

TIME LINE

The patient was given internal medications for one and a half months. She was advised to modify her *Aharas*(diet) and *Viharas*(lifestyle). After one and a half months of treatment and 45 days of follow-up, she got symptomatic relief. During this period, she did not develop any visual disturbance and head ache.

THERAPEUTIC INTERVENTIONS

Internal medicines prescribed:

1. *Hinguvāshtaka Choorna* – 1 teaspoon with buttermilk, before food, for 5 days
2. *Erandabhrishtha Hareethaki* – 3 g with water, at night after food, for 5 days
3. *Pathyashadanga Kwatha* 100 ml bd before food, for 45 days
4. *Kalyanakam Ghrita* 5gm after food at night

Procedures advised

1. *Shiroabhyanga* with *Ksheerabala Taila*
2. *Thalam* with *Rasnadi choornam* and *Ksheerabala Tailam*
3. *Anuloma, Villoma* and *Bhramari Pranayama*

CLINICAL FINDINGS

On examination, visual acuity was 6/6 in both eyes. Fundus examination was within normal limits. All ENT, Throat, Head and Neck examination was normal.

DIAGNOSTIC ASSESSMENT

The severity of the headache was assessed using a 10-point Visual Analogue Scale (VAS), while the duration and frequency of the headache were evaluated using a 4-point scale. The Migraine Disability Assessment (MIDAS) scale was used to assess disability over a 3-month period.

Assessment criteria	Before treatment	After treatment
1. Severity of head ache (VAS)	8	2
2. Frequency of Headache	2	0
3. Duration of Headache	4	0
4. MIDAS	4	1

DISCUSSION

Migraine can be correlated with *Ardhavabhedaka* in Ayurveda. It is *Vata* predominant condition with *anubandha* of *Kapha* and *pitta dosha*. In this patient most of the migraine attacks were related with menstrual cycle which is a *Pitta* predominant stage. So the treatment adopted was *Agni Deepana* and *Vata Pittahara*. In addition *Agni Mandhya*(reduced appetite) and irregular bowel habit were also present. *Hinguashtaka Choorna* was chosen to improve *Agni*(digestive fire). *Eranda Brishta Hareethaki* helps to facilitate the bowel movement. *Pathyadi kwatha* is *Vyadhipratyaneeka* and specifically indicated for *Sirasoola* (headache). The drugs like *Nimba*, *Bhunimba* and *Nisha* help to reduce the activation of inflammatory mediators secreted during the migraine attack and there by decreasing the head ache. Migraine is a neurovascular head ache with genetic predisposition and the depolarization in migraineurs starts from the occipital area. This is known as cortical spreading depression. During this stage patient will develop Aura. *Kṣhīrabala taila* was advised for

Śhiroabhyanga and *Thalam* with *Rasnadi choorna* were opted to regulate this phase. *Kalyanaka Gritha* [10] was prescribed in this case as it is effective in managing different types of neuralgic pain. Pain affects various aspects of one's life, including physical, behavioural, cognitive, emotional, spiritual, and interpersonal elements. [11] Along with other causative agents, stress is one of the primary contributing factors; hence *Kalyanaka Gritha* has been recommended for the period of 45 days. This also helps to control *manasika nidanas* which lead to *Dosha Prakopa*. At the time of the last follow-up evaluation, the patient's MIDAS score was 1, indicating no or little disability range and improvement in overall well-being.

CONCLUSION

Medication, proper lifestyle modifications are necessary to effectively manage migraine. Appropriate diet (*Ahara*) and lifestyle practices (*Vihara*) along with daily yoga practice and pranayama can help control migraine attacks.

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