



ISSN 2456-3110

Vol 9 · Issue 7

July 2024

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences



Maharshi Charaka
Ayurveda

Indexed

Clinical insights and *Ayurvedic* management for Hemiplegic Migraine w.s.r. to *Ardhavabhedaka* - A Case Report

Ratnesh Kumar Shukla¹, Ayushi Chandil², Ritu³, Shraddha Sharma⁴, Rajesh Meshram⁵

^{1,2,3}Post Graduate Scholar, Dept. of Kayachikitsa, Pt. Khushilal Sharma Gov. Ayurvedic College, Bhopal, Madhya Pradesh, India.

⁴Assistant Professor, Department of Kayachikitsa, Pt. Khushilal Sharma Gov. Ayurvedic College, Bhopal, Madhya Pradesh, India.

⁵Reader, Department of Kayachikitsa, Pt. Khushilal Sharma Gov. Ayurvedic College, Bhopal, Madhya Pradesh, India.

ABSTRACT

Hemiplegic migraine, known as *Ardhavbhedaka* in *Ayurveda*, presents a unique challenge in its management due to its complex etiopathogenesis involving both *Vata* and *Pitta Doshas* along with *Kapha Dosha*. Hemiplegic migraine can be familial, meaning it runs in families, or sporadic, occurring in individuals without a family history.^[1] Patients may rarely have a bilateral motor weakness either simultaneously or in succession.^[2] This study explores the *Ayurvedic* approach to managing *Ardhavbhedaka* through a comprehensive review of classical texts, contemporary literature, and clinical experiences. The treatment protocol emphasizes personalized care, including *Shamana* (palliative) therapies to pacify aggravated *Doshas*, *Srotosodhana* (channel purification) procedures to remove underlying causative factors, and *Rasayana* therapies to strengthen the body's natural healing mechanisms. *Ayurvedic* management aims not only to alleviate acute symptoms but also to prevent recurrence and improve overall quality of life. This abstract highlight the efficacy and holistic nature of *Ayurveda* in addressing Hemiplegic migraine, offering insights for further research and integrative clinical applications.

Key words: Hemiplegic Migraine, *Ardhavbhedaka*, *Ayurveda*, Management.

INTRODUCTION

Hemiplegic migraine, referred to as *Ardhavbhedaka* in *Ayurveda*, presents a distinctive clinical entity characterized by severe headache often accompanied by sensory disturbances and motor deficits affecting one side of the body. This condition poses significant challenges in its management due to its complex

etiopathogenesis involving the imbalance of *Vata* and *Pitta Doshas* along with *Kapha Doshas*, as described in *Ayurvedic* texts. Migraine, a prevalent neurological disorder globally, affects approximately 1 billion individuals worldwide, with a significant proportion experiencing hemiplegic migraine. Severe hemiplegic migraine attacks may be associated with encephalopathy or coma.^[3] This variant is characterized by temporary weakness or paralysis on one side of the body during or before the onset of a migraine headache, complicating both diagnosis and treatment. Hemiplegic migraine can be triggered by factors such as acute stress, sleep disturbances (both lack of sleep and excessive sleep), emotional factors, physical exertion, and head trauma. There are also reports suggesting that conventional angiography may trigger hemiplegic migraine episodes.^[4]

Ayurveda, an ancient Indian system of medicine, offers a holistic approach to managing such conditions,

Address for correspondence:

Dr. Ratnesh Kumar Shukla

Post Graduate Scholar, Dept. of Kayachikitsa, Pt. Khushilal Sharma Gov. Ayurvedic College, Bhopal, Madhya Pradesh, India.

E-mail: drratneshs@gmail.com

Submission Date: 14/05/2024 Accepted Date: 27/06/2024

Access this article online

Quick Response Code



Website: www.jaims.in

DOI: [10.21760/jaims.9.7.54](https://doi.org/10.21760/jaims.9.7.54)

emphasizing the balance of *Doshas* (bioenergetic forces) and the restoration of overall health through personalized therapies. Average age of onset is 12 to 17 years. Female to male prevalence ratios range from 2.5 to 1 to 4.3 to 1.^[5] Understanding the prevalence and clinical features of Hemiplegic migraine within an *Ayurvedic* framework is crucial for developing effective management strategies that not only address acute symptoms but also aim to prevent recurrence and enhance the quality of life of affected individuals. This introduction sets the stage for exploring *Ayurvedic* principles and practices in the management of Hemiplegic migraine, highlighting the need for integrative approaches that combine traditional wisdom with modern medical insights.

Roopa of Ardhavabhedaka

One half of the head develops severe throbbing and pricking pain, giddiness and piercing pain, the disease develops either at the interval of fortnight (15 days) or ten days and subsides of its own accord.^[6]

Acharya Chakrapani, a *Charaka Samhita* commentator, explained the phrase *Ardhavabhedaka* by saying “*Ardha Mastaka Vedana*.”^[7]

The *Pratyatma Linga* of *Ardhavabhedaka* must be “Pain in the half of the region of head.”^[8]

Dosha according to different *Acharya*:

Acharya Charak or Madhavnidan - Vata or Vata-Kapha

Acharya Sushrut - Vata-Pitta-Kapha

Acharya Vaghbatt - Vata

Samprapti of Ardhavabhedaka

Vata Prakopak Ahara-Vihar Nidan Sewan



(Vyayama, Ushna, Teekshn-Ahara, Vegadharana, Atapa Sewan, Atichinta, Anidra, etc.)



Madyapana, Amla Sevan, Pratapa, Santapa and Chintaadhikya increases Prakoopita Dosha.



Dooshana of Durbala Rasadhi Dhatu's



Prasara of Doshas in Siras of Shira



Sthansanhraya in Siras due to Shirovaha Sroto Vaigunya



Sthansanshraya in Manya, Bhru, Shankha, Akshi, Lalata, Karna Pradesh



Shirogata Srotas Dosha Dooshya's lodged



Vata damages Siras of Shiras, causing Shaithilyata, Akunchana



Rakta Dusti vascular disturbance in the form of *Shoola in Shiras Ardha Parshwa*



Throbbing and pricking pain in one half of the head region. (*Ardhavabhedaka*)

Hemiplegic Migraine

Hemiplegic migraine is a rare subtype of migraine with aura, characterized by the presence of motor weakness as an aura manifestation at the time of migraine attack. Typically, migraine aura has visual symptoms as aura, but occasionally impairment in sensation or speech may also be seen. A hemiplegic migraine is a distinct condition in which motor weakness occurs.

Hemiplegic migraine is characterised by recurrent attacks with headache and aura manifestations. Emotional and intense physical stress, viral infections and head trauma are the more common reported trigger factors for hemiplegic migraine attacks.^[9]

Symptoms usually occur over 20-30 mins, the symptoms can last for a few hrs to days and rarely can last up to 4 weeks. The symptoms resolve completely in a majority of the cases. Most of the patients with hemiplegic migraine have associated headaches. Headache is almost always present during attacks and

it is often severe. The localisation of headache is variable: bilateral, unilateral, ipsilateral or contralateral to the motor symptoms. Symptoms of severe attack, including hemiplegia and impaired consciousness, can last for many days to months before they resolve completely. The motor symptoms may outlast a headache.

Aura symptoms

Unilateral weakness is always present during Hemiplegic migraine attacks and it is considered the most important sign; weakness can rarely be bilateral and sometimes it may switch side. Besides motor weakness, sensory symptoms (such as tingling, numbness and paraesthesia), visual defects (scintillating scotoma, hemianopia) and aphasia are the most frequent aura symptoms. Sometimes, migraine attacks may include other signs and symptoms such as fever, seizure, bilateral visual disturbances, a 'brainstem aura' with vertigo, dysarthria, ataxia, tinnitus, impaired consciousness and even, in the worse conditions, coma. The duration of symptoms is usually 20-60min but, in some cases, the aura and motor deficit may onset quickly and simulate an ischaemic attack. The complete recovery from attacks is the rule, but in severe migraine attacks, hemiplegia and altered consciousness may persist for weeks until total recovery.^[10]

CASE REPORT

According to the patient, she is a 24 year old girl who has been suffering from migraine since last 6 years and is currently suffering from severe headache, nausea, vertigo, numbness in the half of the body and pain in the right hand and leg. She came to our hospital for her problem.

Past history - Migraine (In the last 6 year)

Personal History

Diet	Vegetarian
Appetite	Low
Bowel	Irregular

Sleep	Disturbed
Micturition	Normal

Family History - NAD

Dashavidhapareeksha

Prakriti	Vata Pitta
Vikriti	Vata Pitta Kapha
Sara	Madhyama
Samhanan	Madhyama
Pramana	Madhyama
Satwa	Avara
Satmya	Madhyama
Ahar Shakti	Madhyama
Vyayam Shakti	Madhyama
Vaya	Madhyama

Ashta Vidha Pareeksha

Nadi	Vata Pitta
Mutra	Prakrita
Mala	Vibandha
Jivha	Lipta
Shabda	Prakrita
Sparsha	Mridu
Drishti	Prakrita
Akriti	Madhyama

General Examination

• Pallor - Absent • Icterus - Absent • Koilonychias - Absent • Lymphadenopathy - Absent • Edema - Absent

On MRI Brain

Screening MRI of Brain Screening on High Field M.R. System suggest Small Focal Gray Matter Deposit is seen in body of left lateral ventricle suggestive of Heterotopia Gray White Matter signal intensity is

normal diffusion restriction or acute infarct in the brain is seen.

Assessment criteria

Headache impact test: (HIT-6)

This questionnaire was designed to help you describe and communicate the way you feel and what you cannot do because of headaches. To complete, please circle one answer for each question.

SN	Severity of Headache Score	Score
1.	No headache.	0
2.	Tolerable headache	1
3.	Do not disturb the routine work	2
4.	Disturb the routine work	3
5.	Intolerable headache	4

SN	Nature of headache Score	Score
1.	<i>Avedana</i>	0
2.	<i>Manda Vedana</i>	1
3.	<i>Sambheda Toda</i>	2
4.	<i>Shastra / Vajrapata Vedana</i>	3

SN	Duration of Headache: Score	Score
1.	No headache	0
2.	1 -3 hours	1
3.	4-12 hours	2
4.	13-24 hours	3
5.	Over 24 hours / continuous	4

SN	Nausea	Score
1.	Nil	0
2.	Occasionally	1
3.	Moderate, but does not disturb the routine work	2
4.	Severe, disturbing routine work	3

5.	Severe enough, small amount of fluid regurgitating from mouth	4
----	---	---

SN	Vomiting	Score
1.	Nil	0
2.	Only if headache does not subside	1
3.	Vomiting 1-2 times	2
4.	Vomiting 2-3 times	3
5.	Forced to take medicine to stop vomiting	4

SN	Vertigo	Score
1.	Nil	0
2.	Feeling of giddiness	1
3.	Patient feels as if everything is revolving	2
4.	Revolving signs + black outs	3
5.	Unconscious	4

SN	Aura	Score
1	Nil	0
2	Last for 5 minutes	1
3	Last for 15 minutes	2
4	Last for 30 minutes	3
5	Last for more than 60 minutes	4

Treatment plan

Shodhana chikitsa	Doses	Anupana
<i>Yoga Basti</i> <i>Anuvasana - Kottamchukkadi Taila 80ml</i> <i>Niruha - Dashmoola Kwath 360 ml</i>	A,A,N,A,N,A,N,A	
<i>Bahya Chikitsa</i> <i>Abhyanga - Vatashamaka Taila</i> <i>Swedana - Dashmoola Kwath</i> <i>Shirodhara - Jatamansi Kwath</i>		
<i>Abhyantar Chikitsa</i>		

<ul style="list-style-type: none"> ▪ Mahavatvidhwans Ras 60 mg ▪ Sameerpannag Ras 60 mg ▪ Ekangveer Ras 60 mg ▪ Sootshekhar Ras 60 mg ▪ Khurasani Owa (Hyoscyamus niger) 60 mg ▪ Lajjalu Panchang (Mimosa pudica) 60 mg 	360mg × Bd	Luke warm water
<ul style="list-style-type: none"> ▪ Brahmi Vati 	250mg × Bd	Luke warm water
<ul style="list-style-type: none"> ▪ Maharasnadi Kwath 	40ml × Bd	Luke warm water
<ul style="list-style-type: none"> ▪ Pathyadi Kwath Extract 300 mg ▪ Shirsuladi Vajra Ras 100mg ▪ Godanti Bhasma 100mg ▪ Laghu Sutsekhar Ras 100 mg 	600mg × Bd	Luke warm water

RESULT

SN	Symptoms	Before Treatment	After Treatment
1.	Severity of Headache	4	2
2.	Nature of Headache	4	2
3.	Duration of Headache	4	2
4.	Nausea	4	2
5.	Vomiting	2	1
6.	Vertigo	3	1
7.	Aura	4	0

DISCUSSION

These symptoms lead to *Doshadushti*, manifesting as *Tridoshaja* (Su.), *Vata-Kaphaja* (Ch.), and *Vataja* (Va). *Rasa* and *Rakta Doshas* are also affected, as noted by

Acharya Charaka in *Shiroruk* (Ch.Su.24/13). Simultaneously, *Srotodushti in Rasa-Raktavahasrotas* (the blood vessels of the head) occurs, which corresponds to the vascular phenomenon observed in migraine. The phenomenon of *Urdhavagamana* by *Vata*, due to its *Chala Guna* or along with *Pitta*, causing *Urdhavagpravriti* at *Kapha Sthana*, elucidates the predominance of *Vata Pitta dosha* in the establishment of pathogenesis.

Probable mode of action of treatment

Kottamchukkadi Tail has Aama Pachana (improves digestion power and digest the toxins released from Undigested food) effect when taken internally and has *Lekhaniya* effect when used externally. It does *Doshavilayana* (liquefaction of *Dosha*) and *Srotoshodhana* which helps in relieving *Margavarana* (obstruction of channels) of *Vata*. It will reach to *Sukshma Srotas* (minute Channels) and thus help in pacifying *Vata Dosha*. *Ushna*, *Ruksha* and *Tikshna* (sharp) Properties help in pacifying *Sheeta* (cold) - *Snigdha* (unctuous) properties of *Kapha* efficiently.^[11]

Dashmoola Kwath serves critical functions such as nourishment, hydration, and detoxification.

When the *Swedavaha Srotas* is impaired, it manifests symptoms like irregular sweating, skin roughness, and overall body heat. Sweat contains sodium chloride, water, urea, lactic acid, potassium, calcium, and other substances that are also present in extracellular fluid, providing essential nutrition to cells. Excessive sweating depletes these fluids, particularly sodium chloride, leading to feelings of exhaustion or weakness.

Swedana, with its properties like warmth and sharpness, stimulates the body and increases metabolic activity. The warmth quality of *Sweda* dilates capillaries, enhancing circulation, which in turn promotes the elimination of waste products and improves the absorption of oils or medications through the skin. It also stimulates muscles and nerves, aiding in their revitalization. Heat application through *Swedana* can induce a hypoalgesia effect by distracting from pain stimuli. Sweating regulates body temperature, water balance, and electrolyte levels.^[12]

Medicated *Swedana Karma* acts by-^[13]

1. Producing sedative/ tranquilizing effect and thus results in relieving the pain.
2. Relieving stiffness.
3. Relieving coldness.
4. Relieving heaviness.

Shirodhara with *Jatamasi Kwath* traditionally recommended for various conditions such as headache, migraine, insomnia, attention deficit hyperactivity disorder (ADHD), anxiety, phobias, depression, essential hypertension, and other psychosomatic disorders. According to *Ayurvedic* texts, certain vital spots (*Marma*) are located in the forehead and head regions. Specifically, *Marma* points like *Sthapni*, *Utshepa*, *Avarta*, *Shankha*, and *Apanga* are situated in this area. *Acharya Bhela* mentions that the spot between both eyebrows (*Bhrumadhya*) is where *Chitta* (Mind) resides, and it is also the location of the *Sthapni Marma*. Many *Marma* points in the head region are predominantly influenced by the elements of fire (*Agni*) and air (*Vayu*). The *Sthapni Marma* is positioned at the same level as the pituitary and pineal glands, which are vital for hormone regulation and the overall endocrine system. Mental stress and irritability are factors that can disrupt the normal function of the endocrine system. By stimulating the *Sthapni Marma* and indirectly affecting the pituitary gland, *Shirodhara* therapy is believed to bring about changes at a psychosomatic level.

A traditional formulation for neurogenic disorders affecting the central nervous system (CNS) and peripheral nervous system (PNS). This combination Enhances metabolic processes in both CNS and PNS, facilitating neuro-muscular communication. Regulates blood flow to affected areas, counteracts oxygen deprivation, and stimulates cerebro-neural functions. Supports the healing of injured nerves and blood vessels, and promotes the recanalization of blood vessels. Provides nutritional support to nerves and blood vessels.^[14-16] *Mahavatvidhwansak Rasa* enhances metabolism in CNS and PNS, coordinates neuro-muscular activities. *Sameerpannag Rasa*

enhances tissue oxidation, counteracts oxygen deprivation, and normalizes neuro-muscular metabolism. *Ekangveer Ras* facilitates healing of damaged nerves and blood vessels, promotes blood vessel recanalization, and activates sensory and motor functions. *Sootshekhar Rasa* provides nutritional support to aid rapid healing of damaged tissues. *Lajari* has regenerative effects on neuro-lesions. *Khurasani Owa* alleviates neuro-irritation.

Brahmi is highly regarded as a powerful brain tonic that supports mental activity, enhances brain function, and helps manage feelings of nervousness and restlessness. Its calming and nurturing qualities make *Brahmi* particularly beneficial for coping with the demands of a busy schedule and stressful environments.

Maha-Rasnadhi Kwatha is a polyherbal formulation that has been demonstrated to be safe and non-toxic, offering potential relief to patients. It is composed of extracts from 26 different plants traditionally used in medicine for various purposes, including pain reduction, inflammation reduction, and antipyretic effects.^[17]

This combination of *Pathyadi Kwath*, *Laghu Sutshekhar Rasa*, *Godanti Bhasma*, and *Sirosuladi Vajra Rasa* is a safe and effective polyherbal preparation formulated with specific quantities of herbal ingredients. Each ingredient in combination extract is carefully chosen for its efficacy in treating migraine, headaches, and related discomforts.

CONCLUSION

In conclusion, this case report highlights the effective integration of clinical insights and Ayurvedic management in treating hemiplegic migraine, specifically under the framework of *Ardhavabhedaka*. This underscores the potential of holistic treatments in managing complex neurological conditions.

REFERENCES

1. Ducros A. [Familial and sporadic hemiplegic migraine]. *Rev Neurol (Paris)*. 2008 Mar;164(3):216-24.
2. Ducros A, Denier C, Joutel A, Cecillon M, Lescoat C, Vahedi K, Darcel F, Vicaut E, Bousser MG, Tournier-

- Lasserve E. The clinical spectrum of familial hemiplegic migraine associated with mutations in a neuronal calcium channel. *N Engl J Med.* 2001 Jul 05;345(1):17-24.
3. Russell MB, Ducros A. Sporadic and familial hemiplegic migraine: pathophysiological mechanisms, clinical characteristics, diagnosis, and management. *Lancet Neurol.* 2011 May;10(5):457-70.
 4. Hansen JM, Hauge AW, Ashina M, Olesen J. Trigger factors for familial hemiplegic migraine. *Cephalalgia.* 2011 Sep;31(12):1274-81.
 5. Thomsen LL, Eriksen MK, Roemer SF, Andersen I, Olesen J, Russell MB. A population-based study of familial hemiplegic migraine suggests revised diagnostic criteria. *Brain.* 2002 Jun;125(Pt 6):1379-91.
 6. Shastri KA. Shirorogavigyaniyaadhyaya 25/15. In: *Sushruta Samhita of Maharshi Sushruta.* Varanasi: Chaukhambha Sanskrit Sansthan; 2012. P. 166.
 7. Shastri SN. Trimarmiyasiddhi 9/75-76. In: *Charak Samhita of Agnivesha.* Varanasi: Chaukhambha Bharti Academy; 2018. P. 1067
 8. Tripathi B. 23/7. In: *Ashtanga Hridayam of Srimadavagbhata.* Varanasi: Chaukhambha Sanskrit Pratishtana; 2003. P. 726.
 9. Toldo I, Brunello F, Morao V, et al. First attack and clinical presentation of hemiplegic migraine in paediatric age: a multicenter retrospective study and literature review. *Front Neurol* 2019;10:1079.
 10. Thomsen LL, Ostergaard E, Olesen J, et al. Evidence for a separate type of migraine with aura: sporadic hemiplegic migraine. *Neurology* 2003;60:595–601.
 11. Kumar Tarun, Thakur Anup, Kottamchukkadi Taila: A Theoretical Analysis, *WJPR*, Vol 7, Issue 9, 2018
 12. Neetu Sharma, Nidhi soni, Vijay Jatolia. Successful Ayurveda Management of Trigeminal Neuralgia. *AYUSHDHARA*, 2024;11(1):36-39.
 13. Namita Patel A Comparative Clinical Study to Evaluate the Effect of Dashmool Kwath Nadi Sweda and Local Steam Bath in Sandhi – Gata-Vata. *International Ayurvedic Medical Journal {online}* 2022
 14. Sushrut samhita, Chaukhamba Sanskrit Sansthana, Edition: Reprint, volume 1. Chaukhamba Publication Hindi commentary Sharira sthana, 2014; 5/28: 61.
 15. Shushrut samhita Dalhana comm. *Ayurved Tatva Sandipika*, edited K. S. Shastri. Sharir Sthana 5/28 Page 56. Varansi; Chaukhamba Surbharati Prakashana.
 16. Shushrut samhita, Chaukhamba Sanskrit Sansthana, Edition: Reprint, volume 1. Chaukhamba Publication Hindi commentary Sharira sthana, 2014; 6/17: 70.
 17. Kavita Bapu Kharat, Varsharani Niphade, Amol Gulve, A case study on the Ayurvedic management of Ankylosing Spondylitis, *WJPR*, Vol 11, Issue 7, 2022.

How to cite this article: Ratnesh Kumar Shukla, Ayushi Chandil, Ritu, Shraddha Sharma, Rajesh Meshram. Clinical insights and Ayurvedic management for Hemiplegic Migraine w.s.r. to Ardhavabhedaka - A Case Report. *J Ayurveda Integr Med Sci* 2024;7:339-345. <http://dx.doi.org/10.21760/jaims.9.7.54>

Source of Support: Nil, **Conflict of Interest:** None
