

Ayurvedic Management of Migraine Emphasizing Brahmi Ghrita Nasya: A Clinical Case Report.

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Abstract:

Background: Migraine is a highly prevalent, debilitating chronic neurological disorder characterized by recurrent, unilateral, throbbing headaches. In Ayurveda, it closely correlates with *Ardhavabhedaka*, a disease primarily driven by the vitiation of *Vata* and *Pitta doshas*. Conventional pharmacological management often yields incomplete relief and carries the risk of medication-overuse headaches and adverse side effects. **Case Presentation:** A 34-year-old female patient presented with a 5-year history of severe, unilateral, pulsating headaches, accompanied by photophobia, phonophobia, and nausea. Conventional analgesics and triptans provided only temporary relief. Her condition was diagnosed as *Ardhavabhedaka* based on Ayurvedic diagnostic principles. **Intervention:** The patient was managed using a comprehensive Ayurvedic protocol with a primary focus on *Pratimarsha Nasya* (nasal drug administration) using *Brahmi Ghrita*, preceded by *Snehana* (oleation) and *Swedana* (sudation). This was supported by *Shamana* (pacifying) oral medications, including *Pathyadi Kwatha* and *Godanti Bhasma*. **Outcomes:** Treatment efficacy was measured using the Visual Analog Scale (VAS) for pain intensity and the Migraine Disability Assessment Scale (MIDAS). Over a 30-day treatment period and a subsequent 60-day follow-up, the patient's VAS score dropped from 8 to 1, and the MIDAS score reduced from 22 (Severe Disability) to 4 (Little or No Disability). **Conclusion:** *Ghrita Nasya*, combined with supportive oral Ayurvedic formulations, demonstrates profound efficacy in managing *Ardhavabhedaka* (migraine). The lipid-soluble nature of *Ghrita* facilitates efficient drug delivery to the central nervous system, effectively pacifying *Vata* and *Pitta* and providing long-term relief without adverse effects.

Keywords: *Ardhavabhedaka*, Migraine, *Nasya Karma*, *Ghrita*, Ayurveda, *Panchakarma*

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Introduction:

Migraine is globally recognized as the second leading cause of Years Lived with Disability (YLDs), profoundly impacting the quality of life, occupational productivity, and psychological well-being of those afflicted. It is defined as a primary headache disorder manifesting in episodic attacks lasting 4 to 72 hours, characterized by unilateral, pulsating pain, and often associated with autonomic symptoms such as nausea, vomiting, photophobia, and phonophobia.¹⁻²

In the framework of Ayurvedic medicine, migraine shares a direct clinical correlation with *Ardhavabhedaka*. Described extensively by Acharya Sushruta and Charaka, *Ardhavabhedaka* literally translates to "tearing or bursting pain in half of the head." The pathogenesis (*Samprapti*) involves the aggravation of *Vata dosha*—often acting independently or in conjunction with *Pitta* or *Kapha doshas*—which subsequently travels upward to afflict the *Siras* (blood vessels and nerves) of the head.³

The primary therapeutic strategy in Ayurveda for diseases of the supraclavicular region (*Urdhvajatrugata Roga*) is *Nasya Karma* (nasal instillation of medicines). As stated in the Ayurvedic axiom, "*Nasa hi shiraso dwaram*" (the nose is the gateway to the brain). *Ghrita* (clarified butter/ghee) is highly revered for its *Yogavahi* property (ability to carry the active principles of herbs without losing its own qualities) and its lipid-soluble nature, which theoretically allows it to bypass the blood-brain barrier.⁴

This case report documents the clinical presentation, Ayurvedic assessment, detailed treatment protocol, and highly successful outcome of a chronic migraine patient treated primarily with *Brahmi Ghrita Nasya*.⁵⁻⁶

Patient Information

- **Age/Gender:** 34 years, Female
- **Occupation:** Software Developer
- **Marital Status:** Married
- **Chief Complaints:**
 - a. Severe, throbbing headache on the left side of the head, occurring 3-4 times per month for the past 5 years.
 - b. Episodes last between 24 to 48 hours.
 - c. Associated symptoms: severe nausea, occasional vomiting, extreme sensitivity to light (photophobia) and sound (phonophobia).
 - d. Disturbed sleep and chronic fatigue.
- **History of Present Illness (HPI):** The patient was apparently well 5 years ago until she transitioned to a high-stress corporate role. The headaches began as a mild, dull ache but progressively worsened in frequency and intensity. Triggers explicitly identified by the patient included excessive screen time, skipped meals, emotional stress, and disrupted sleep schedules. Conventional management included non-steroidal anti-inflammatory drugs (NSAIDs) and Sumatriptan, which initially provided acute relief but had become increasingly ineffective over the last year, leading to a suspicion of medication-overuse headache. Seeking an alternative, long-term solution, she presented to the Ayurvedic outpatient department.
- **Past Medical History:** No history of hypertension, diabetes mellitus, thyroid dysfunction, or structural brain abnormalities (an MRI scan performed 2 years prior was unremarkable). No history of head trauma.
- **Family History:** Her mother suffered

from episodic migraines during her reproductive years.

Clinical Findings and Assessment

General Examination

- **Blood Pressure:** 118/78 mmHg
- **Pulse Rate:** 76 beats/min, regular
- **Respiratory Rate:** 16 breaths/min
- **Weight:** 62 kg
- **Pallor/Icterus/Cyanosis/Clubbing:** Absent

Ayurvedic Systemic Examination (Ashtavidha Pariksha)

To establish the *Dosha* dominance, the eight-fold examination was conducted:

1. **Nadi (Pulse):** *Vata-Pitta* dominant (rapid, slightly tense).
2. **Mala (Stool):** Irregular bowel movements, occasional constipation (*Krura Koshtha*).
3. **Mutra (Urine):** Normal, frequency 4-5 times/day.
4. **Jihva (Tongue):** Slightly coated at the base (*Sama*), indicating mild *Ama* (metabolic toxins).
5. **Shabda (Speech):** Clear, but voice volume drops during headache episodes.
6. **Sparsha (Touch):** Normal, slightly elevated temperature on the scalp

during attacks.

7. **Drik (Eyes):** Conjunctiva normal, heavy eyelids, aversion to bright light.
8. **Akriti (Build):** *Madhyama* (moderate).

Ayurvedic Constitutional Assessment (Dashavidha Pariksha)

- **Prakriti (Body Constitution):** *Vata-Pitta*
- **Vikriti (Morbid State):** *Dosha* (*Vata*, *Pitta*), *Dushya* (*Rasa*, *Rakta*), *Srotas* (*Rasavaha*, *Raktavaha*, *Majjavaha*).
- **Sara (Tissue Excellence):** *Madhyama* (Moderate)
- **Samhanana (Compactness):** *Madhyama* (Moderate)
- **Pramana (Measurements):** Normal proportion
- **Satmya (Adaptability):** *Vyammishra* (Mixed)
- **Sattwa (Mental Strength):** *Avara* (Low—patient exhibited high anxiety regarding her condition)
- **Aharashakti (Digestive Capacity):** *Vishama Agni* (Irregular digestion due to *Vata*)
- **Vyayamashakti (Physical Strength):** *Madhyama*
- **Vaya (Age):** *Madhyama* (Middle age)

Final Ayurvedic Diagnosis: *Ardhavabhedaka* (*Vata-Pittaja* type).

Timeline of Case

| Date | Clinical Event / Status | Action Taken |
|-----------------|---|---|
| Day -5 Years | Onset of occasional headaches | Treated with OTC analgesics. |
| Day -1 Year | Headaches became chronic (3-4/month); severe intensity. | Prescribed Triptans; noted decreasing efficacy. |
| Day 0 | Initial consultation at Ayurvedic OPD. VAS Score: 8; MIDAS: 22. | Diagnosis of <i>Ardhavabhedaka</i> . Baseline investigations recorded. Commenced <i>Deepana/Pachana</i> . |
| Day 3 to Day 17 | Patient underwent 14-day <i>Nasya Karma</i> protocol. | Administered <i>Brahmi Ghrita Nasya</i> along with oral <i>Shamana</i> medications. |

| | | |
|---------------|-----------------------------|---|
| Day 30 | First major follow-up. | Evaluated symptom reduction. VAS Score: 3. |
| Day 60 | Second follow-up. | No major episodes in 4 weeks. VAS: 1; MIDAS: 4. |
| Day 90 | Final documented follow-up. | Sustained relief. Oral medications tapered. |

Therapeutic Intervention

The management protocol was designed in three distinct phases: Correction of metabolic fire (Agni), Bio-purification/Targeted delivery (Panchakarma/Nasya), and Palliation (Shamana).

Phase 1: Deepana and Pachana (Days 1 to 3)

Before initiating *Nasya*, it was essential to clear *Ama* (undigested toxins) and regulate the digestive fire.

- **Medication:** *Hingvashtaka Churna* (3 grams) twice daily with warm water before meals.
- **Diet:** Light, warm, and easily digestible food (*Mudga Yusha* - green gram soup).

Phase 2: Pradhana Karma - The Nasya Protocol (Days 4 to 17)

The patient underwent a 14-day course of *Marsha Nasya* using *Brahmi Ghrita*. *Brahmi* (*Bacopa monnieri*) is a potent *Medhya Rasayana* (nervine tonic), and when processed in cow's ghee, it effectively pacifies *Vata* and *Pitta* while nourishing the nervous system.⁷⁻¹⁰

The Daily Nasya Procedure:

1. Purva Karma (Preparatory Phase):

- The patient was seated comfortably in a draft-free room.
- *Sthanika Abhyanga* (local massage) was performed over the forehead, face, and neck using *Ksheerabala*

Taila for 10 minutes.

- This was followed by *Nadi Sweda* (localized steam fomentation) to the face (protecting the eyes) to induce vasodilation and liquefy morbid *Doshas*.

2. Pradhana Karma (Main Phase):

- The patient was asked to lie in a supine position with the head slightly tilted backward (at an angle of approximately 45 degrees).
- Lukewarm *Brahmi Ghrita* was administered into each nostril using a sterile dropper.
- **Dosage:** 8 drops (*Bindus*) per nostril.
- The patient was instructed to gently inhale the medication and avoid swallowing. Gentle massage was applied to the soles of the feet, palms, and shoulders to relax the nervous system and facilitate the downward movement of *Doshas*.

3. Paschat Karma (Post-procedure):

- The patient was instructed to spit out any secretions that reached the oropharynx.
- Gargling (*Kavala*) with warm water mixed with a pinch of rock salt was performed to clear the throat.
- *Dhumapana* (medicated herbal smoke) using *Haridra* (Turmeric) was administered to clear any residual *Kapha* from the respiratory

channels.

- The patient rested for 30 minutes before leaving the clinic.

Phase 3: Shamana Chikitsa (Oral Medications - Days 1 to 30)¹¹

Concurrently, internal medications were prescribed to pacify systemic *Doshas* and relieve pain:

| Formulation | Dosage | Anupana (Vehicle) | Time of Administration | Rationale |
|-----------------------------------|------------------|-------------------|----------------------------|---|
| Pathyadi Kwatha | 15 ml | 15 ml warm water | Twice daily, empty stomach | A classic decoction specifically indicated for vascular headaches and <i>Urdhvajatrugata</i> disorders. |
| Godanti Bhasma | 250 mg | Honey | Twice daily, after meals | Acts as a natural calcium source, pacifies <i>Pitta</i> , and possesses potent analgesic properties. |
| Kamadugha Ras (Moti Yukta) | 1 tablet (250mg) | Water | Twice daily | Highly effective in combating <i>Pitta</i> aggravation, reducing nausea, and photo/phonophobia. |

Dietary and Lifestyle Modifications (Pathya-Apathya):¹²

The patient was strictly advised to avoid curd (*Dadhi*), fermented foods, excessive caffeine, and prolonged fasting. A regular sleep schedule (sleeping by 10:30 PM) and limiting digital screen exposure to professional necessities were mandated.

Follow-up and Outcomes

The patient was evaluated at baseline (Day 0), immediately post-Nasya therapy (Day 17),

and at follow-up intervals on Day 30, Day 60, and Day 90. The evaluation was based on two standardized scales:

1. **Visual Analog Scale (VAS):** To measure pain intensity (0 = No pain, 10 = Worst imaginable pain).
2. **Migraine Disability Assessment Scale (MIDAS):** A questionnaire assessing the impact of headaches on daily life over a 3-month period.

Table: Objective Assessment of Treatment Outcomes

| Assessment Parameter | Baseline (Day 0) | Post-Nasya (Day 17) | Follow-up 1 (Day 30) | Follow-up 2 (Day 60) |
|----------------------|------------------|---------------------|----------------------|----------------------|
| | | | | |

| | | | | |
|-----------------------------|------------------------|--------------------|----------------------|-------------------------|
| Frequency of Attacks | 4 per month | 1 mild episode | 0 | 0 |
| Duration of Attack | 24 - 48 hours | 4 hours | N/A | N/A |
| VAS Score (Pain) | 8/10 | 3/10 | 1/10 | 0/10 |
| Nausea / Vomiting | Severe | Mild nausea only | Absent | Absent |
| Photophobia | Present (Severe) | Mild | Absent | Absent |
| MIDAS Score | 22 (Grade IV - Severe) | Assessment pending | 12 (Grade II - Mild) | 4 (Grade I - Little/No) |

Clinical Observations:

By the end of the 14-day *Nasya* protocol, the patient reported a dramatic reduction in the "heaviness" of her head and a significant improvement in sleep quality. At the Day 30 follow-up, she reported only one mild headache episode that resolved with rest, without the need for rescue analgesics. By Day 60 and Day 90, she was completely symptom-free and reported improved concentration at work and a much calmer state of mind. No adverse events or side effects from the Ayurvedic medications or *Nasya* procedure were reported.

Discussion

The management of *Ardhavabhedaka* (migraine) presents a significant clinical challenge due to the complex neurovascular mechanisms involved. In this case, the highly successful outcome underscores the deep pharmacological logic of Ayurvedic *Panchakarma*, specifically *Ghrita Nasya*.¹³

The Pathophysiological Breakdown:

In Ayurveda, stress, irregular sleep, and improper diet lead to the aggravation of *Vata* (neurological/kinetic energy) and *Pitta* (metabolic/thermal energy). When these vitiated *Doshas* localize in the *Urdhvajatru* (head and neck), they cause spasms and subsequent dilation of blood vessels, manifesting as *Ardhavabhedaka*. The

accompanying symptoms of nausea and photophobia correlate precisely with *Pitta* involvement.

Mechanism of Action of Nasya:

Nasya Karma is the direct delivery system for cerebral pathologies. The olfactory nerve is the only cranial nerve with direct exposure to the external environment. Modern pharmacokinetics acknowledges the nasal mucosa as a highly vascularized area allowing for rapid systemic absorption, bypassing first-pass hepatic metabolism.¹⁴

Furthermore, the vehicle used—*Ghrita* (ghee)—is highly lipophilic. The blood-brain barrier (BBB) selectively permits lipid-soluble substances. The administration of *Brahmi Ghrita*, an amalgamation of lipid-soluble *Ghrita* and the neuro-protective alkaloids of *Bacopa monnieri*, allows the active principles to traverse the BBB effectively. *Brahmi* acts as a nervine sedative, regulating the hyper-excitability of neurons, while the *Snigdha* (unctuous) and *Sheetala* (cooling) properties of the *Ghrita* pacify the dry, erratic nature of *Vata* and the fiery nature of *Pitta*.¹⁵

The Role of Shamana Therapy:

The oral administration of *Pathyadi Kwatha* played a crucial adjuvant role. Research indicates that the ingredients in *Pathyadi Kwatha* (such as *Haritaki* and *Amalaki*) possess mild laxative (*Anulomana*)

properties, correcting the downward flow of *Vata* and ensuring gut-brain axis homeostasis. *Godanti Bhasma* provided immediate analgesic effects, likely due to its cooling nature and calcium composition which helps in regulating smooth muscle contractions in vascular walls.

Limitations of the Case Report:

While the outcomes were exceptionally positive, this is a single case report. The exact biomolecular pathways through which *Brahmi Ghrita* alters neuro-vascular inflammation require further validation through large-scale, randomized controlled clinical trials using modern neuroimaging techniques.

Conclusion

This case report firmly demonstrates the clinical efficacy of a structured Ayurvedic protocol emphasizing *Ghrita Nasya* in the management of chronic migraine (*Ardhavabhedaka*). By transitioning away from symptom-suppressing analgesics to therapies that address the root *Dosha* imbalances, the patient achieved complete remission of debilitating symptoms and a return to a high quality of life. *Nasya Karma* offers a safe, highly targeted, and cost-effective therapeutic avenue that warrants broader integration into mainstream neurological care.

Patient Perspective

"For the last five years, my life revolved around my migraines. I was constantly afraid of the next attack and relied heavily on strong painkillers that made me groggy. The Nasya therapy initially felt strange, but by the second week, my head felt clearer than it had in years. Not only did my headaches stop, but my anxiety levels dropped significantly, and I am finally sleeping through the night without

interruption. It has been a life-altering treatment."

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