



## ROLE OF AJA DUGDH NASYA IN A DRUG-RESISTANT CASE OF ARDHAVABHEDAKA (MIGRAINE): A CASE REPORT

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### ABSTRACT

**Background:** Ardhavabhedaka, a type of Shiro Roga described in Ayurveda, closely resembles migraine in modern medicine. Migraine is a chronic neurological disorder characterized by recurrent unilateral headaches associated with nausea, photophobia, and phonophobia. A subset of patients remains refractory to conventional pharmacological treatment, necessitating alternative therapeutic approaches. **Objective:** To evaluate the therapeutic efficacy of Aja Dugdh Nasya in a drug-resistant case of Ardhavabhedaka (migraine) using clinical outcome measures. **Methods:** A single-case clinical study was conducted on a 45-year-old female patient presenting with chronic migraine unresponsive to conventional therapy. The patient was treated with Aja Dugdh Nasya for 21 days. Assessment was performed using a standardized grading system for headache severity, frequency, duration, and associated symptoms. **Results:** Significant improvement was observed in headache intensity, frequency, duration, and associated symptoms such as nausea, vertigo, and photophobia. No adverse effects were reported. **Conclusion:** Aja Dugdh Nasya appears to be a safe and effective therapeutic modality for managing drug-resistant migraine. This study supports the potential of integrative Ayurvedic approaches in chronic neurological disorders.

**KEYWORDS:** Ardhavabhedaka, Migraine, Nasya Karma, Aja Dugdh, Ayurveda, Drug-resistant headache.

### INTRODUCTION

Headache disorders are among the most prevalent neurological conditions globally, with migraine affecting approximately 14–15% of the population and contributing significantly to disability-adjusted life years (DALYs). Migraine is characterized by recurrent episodes of unilateral, pulsating headache, often accompanied by nausea, vomiting, photophobia, and phonophobia. It disproportionately affects females and commonly occurs during productive years, leading to substantial socioeconomic burden.

Despite advances in pharmacotherapy, including triptans, NSAIDs, beta-blockers, and CGRP antagonists, many patients experience incomplete relief, recurrence, and adverse drug reactions. Drug-resistant migraine remains

a major clinical challenge, necessitating exploration of alternative and complementary therapeutic modalities.

In Ayurveda, headache disorders are categorized under Shiro Roga, among which Ardhavabhedaka is a well-defined entity. It is characterized by severe, unilateral, splitting pain affecting half of the head, often episodic and associated with symptoms resembling migraine. Classical texts describe it as predominantly Vata-Pitta or Vata-Kapha in origin, involving Sira (vascular structures) and Snayu (neural elements).

Nasya Karma is considered the most effective therapy for diseases of the head (Urdhvajatrugata Roga). Among various Nasya dravyas, Aja Dugdh (goat's milk) is described as Madhura, Sheeta, Snigdha, and Balya,

which help in pacifying aggravated Doshas and nourishing neural tissues.

This case study evaluates the role of Aja Dugdha Nasya in a drug-resistant migraine patient, emphasizing its clinical efficacy and integrative mechanism of action.

### CASE PRESENTATION

**Patient Information-** A 45-year-old female patient, employed as an office worker and belonging to a middle socioeconomic background, presented for consultation. The patient reported a history of recurrent unilateral headache, predominantly affecting the left side of the head. The episodes were frequently accompanied by nausea, occasionally progressing to vomiting. She also experienced sensitivity to light (photophobia) and sound (phonophobia), along with associated symptoms of dizziness and generalized fatigue.

**History of Present Illness -** The patient had been suffering from recurrent headache episodes for the past 2 years. The headache was unilateral, pulsatile, and moderate to severe in intensity. Each episode lasted 6-12 hours and occurred 8-10 times per month. The condition was aggravated by stress, irregular meals, lack of sleep, and exposure to bright light.

The patient had been taking conventional medications including NSAIDs and prophylactic drugs but reported minimal relief, categorizing the condition as drug-resistant migraine.

**Past-History -** The patient had no history of any major systemic illness. There was no record of prior trauma, and no significant surgical interventions were reported.

**Family History -** Family history was non-contributory, with no known hereditary or similar neurological conditions in close relatives.

**Personal History -** The patient reported irregular dietary habits, often skipping meals or consuming food at inconsistent times. Sleep patterns were disturbed, with inadequate and non-restorative sleep. Additionally, she reported experiencing high levels of psychological stress related to occupational demands.

**Clinical Examination -** Systemic examination revealed no abnormalities.

- Pulse: 88/min
- Blood pressure: 130/84 mmHg
- Respiratory rate: 20/min

### Investigations

- Hemoglobin: 12.8 gm%
- Blood sugar: Normal
- CT scan of head: Normal

**Assessment Criteria -** Clinical assessment was based on a grading system adapted for migraine evaluation. Each parameter was graded from 0-4.

### Instrumentation

#### Severity of Headache

0 = No headache.

1 = Mild headache, patient is aware only if she pays attention to it.

2 = Moderate headache, can ignore at times.

3 = Severe headache, cannot ignore but she can do her usual activities.

4 = Excruciating headache, cannot do anything.

#### Frequency of Headache: Assessed in term of (frequency in days)

0 = Nil

1 =  $\geq 20$  days

2 = 15 days

3 = 10 days

4 =  $\leq 5$  days

#### Duration of Headache: (Assessed in term of hours/day)

0 = Nil

1 = 1-3 hours/day

2 = 3-6 hours/day

3 = 6-12 hours/day

4 = More than 12 hours/day

#### Nausea

0 = Nil

1 = Occasionally

2 = Moderate, however does not disturb the routine work

3 = Severe, disturbing routine work

4 = Severe enough, small amount of fluid regurgitating from mouth

#### Vomiting

0 = Nil

1 = Only if headache does not subside

2 = Vomiting 1-2 times

3 = Vomiting 2-3 times

4 = Forced to take medicine to stop vomiting

#### Vertigo

0 = Nil

1 = Feeling of giddiness

2 = Patient feels as if everything is revolving

3 = Revolving signs + black outs

4 = Unconscious

#### Photophobia

0 = Nil

1 = Lasts for 5 minutes.

2 = Lasts for 15 minutes

3 = Lasts for 30 minutes

4 = Lasts for 60 minutes

**Diagnosis**

- **Ayurvedic Diagnosis:** Ardhavabhedaka (Vata-Pittaja)
- **Modern Diagnosis:** Drug-resistant migraine

**Treatment Protocol - Intervention: Aja Dugdh Nasya**

- Drug: Fresh goat's milk
- Dose: 6–8 drops per nostril
- Duration: 21 days (in 3 sittings)

**Procedure - Purva Karma (Pre-procedural Measures)**

- The procedure begins with preparatory measures aimed at facilitating the proper administration and absorption of the Nasya drug. Gentle facial massage (Abhyanga) is performed using suitable medicated oil, focusing on the forehead, cheeks, and neck region. This helps in improving local circulation, relaxing the muscles, and mobilizing the aggravated Doshas toward the nasal pathway.

Following massage, mild fomentation (Mridu Swedana) is applied to the face using warm towels or steam. This step aids in dilating the channels (Srotas), liquefying the vitiated Doshas, and enhancing their movement toward the nasal passages, thereby optimizing the effectiveness of the subsequent Nasya therapy.

**RESULTS****Clinical Outcome**

Parameter	Before Treatment	After Treatment
Severity	3	1
Frequency	3	1
Duration	3	1
Nausea	3	1
Vomiting	2	1
Vertigo	2	1
Photophobia	3	1

**DISCUSSION**

The present case demonstrates the potential effectiveness of Aja Dugdh Nasya in the management of drug-resistant migraine, clinically comparable to Ardhavabhedaka. The observed clinical improvement supports the relevance of Ayurvedic interventions in conditions where conventional treatments provide limited relief.

**Ayurvedic Perspective** - Ardhavabhedaka is primarily considered a Vata-Pitta predominant disorder. Vata Dosha is chiefly responsible for the perception and transmission of pain, while Pitta Dosh contributes to inflammatory changes and associated symptoms. The chronic and recurrent nature of the condition indicates the presence of Srotodushti (channel dysfunction) and involvement of deeper tissues.

Aja Dugdh (goat's milk) is described as having Snigdha (unctuous), Sheeta (cooling), and Balya (strengthening) properties. These Guna are beneficial in pacifying

**Pradhana Karma (Main Procedure)** - In this stage, the patient is positioned comfortably in a supine posture with the head slightly extended backward. Lukewarm Aja Dugdh (goat's milk) is administered in a controlled dose of 6-8 drops into each nostril using a dropper.

The patient is instructed to inhale gently during instillation to facilitate deeper penetration of the drug into the nasal passages. Care is taken to ensure proper administration without discomfort. The drug reaches the Shringataka Marma region, which is considered the gateway to the head, thereby exerting its therapeutic action on the affected Doshas and tissues.

**Paschat Karma (Post-procedural Measures)** - After administration, the patient is advised to remain in a relaxed position for a few minutes to allow adequate absorption of the drug. Gentle massage of the palms, soles, and shoulders may be performed to support systemic relaxation.

The patient is then instructed to perform mild gargling (Kavala or Gandusha) with lukewarm water to clear the throat and remove any residual drug. Adequate rest is advised, along with avoidance of exposure to cold air, dust, loud noise, or strenuous activities immediately after the procedure to ensure optimal therapeutic benefits.

aggravated Vata and Pitta, nourishing the neural structures, and alleviating inflammatory processes, thereby addressing the root pathology of Ardhavabhedaka.

**Modern Correlation** - From a contemporary perspective, migraine is understood as a complex neurovascular disorder involving multiple mechanisms such as activation of the trigeminovascular system, release of calcitonin gene-related peptide (CGRP), neurogenic inflammation, and cortical spreading depression. These processes collectively contribute to the onset and persistence of migraine attacks.

**Nasya and Intranasal Drug Delivery** - Nasya Karma shows a close parallel with modern intranasal drug delivery systems. The nasal route provides direct access to the central nervous system via the olfactory and trigeminal pathways, enabling rapid absorption of therapeutic agents while bypassing first-pass

metabolism. This route enhances the bioavailability and targeted action of the administered substance.

**Mechanism of Action (Integrative View)** - The therapeutic effects observed in this case may be attributed to multiple mechanisms, including modulation of neurochemical pathways, reduction of neurogenic inflammation, stabilization of neuronal activity, and improvement in cerebral circulation. These combined effects contribute to the reduction in frequency and intensity of migraine episodes.

**Role of Psychological Factors** - Psychological factors such as stress, anxiety, and disturbed sleep are well-recognized triggers for migraine. Ayurveda also emphasizes Manasika Bhava like Chinta (stress) and Bhaya (fear) in the pathogenesis of Ardhavabhedaka. Nasya therapy, by exerting a calming effect on the central nervous system, may help in reducing stress-related triggers and improving overall mental well-being, thereby contributing to sustained clinical improvement.

## CONCLUSION

The present case indicates that Aja Dugdh Nasya can produce marked clinical improvement in patients with drug-resistant migraine corresponding to Ardhavabhedaka. The therapy appears to be safe, economical, and beneficial in a holistic manner by addressing both symptoms and underlying factors. An integrative approach combining Ayurvedic interventions with modern medical management may offer enhanced therapeutic outcomes in chronic migraine cases.

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