



## GAJAPIPALI AGNIKARMA IN ARDHAVABHEDAKA (MIGRAINE) – A SINGLE CASE STUDY

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**ABSTRACT**

Ardhavabhedaka is one of the Shiroroga which is characterized by Bheda (splitting type of pain), Toda (pricking type of pain), Bhrama (vertigo), Ardhaparshwa Shirashula (pain in right or left of head) appearing in intervals of either 10 or 15 days. Ardhavabhedaka can be correlated with Migraine having symptoms like paroxysmal unilateral headache, sometimes associated with vertigo, nausea, photophobia and phonophobia. According to International Headache Society (I.H.S), Migraine is the most common neurovascular headache. Here a female patient aged about 23yrs has presented with pain in right half of head along with nausea, vomiting, and sensitivity to light and sound since 1 ½ years. The case study has been carried out by Agnikarma using Gajapippali (*Scindapsus officinalis*) and the results were found to be effective in the management of Ardhavabhedaka (Migraine).

**KEYWORDS :** Ardhavabhedaka, Migraine, Agnikarma, Gajapippali**INTRODUCTION**

Acharya Sushruta described 11 types of Shirorogas<sup>(1)</sup> and Acharya Vagbhata mentioned 10 types of Shirorogas.<sup>(2)</sup> Ardhavabhedaka is one among them. According to Acharya Sushruta, it is a Tridoshaja Vyadhi,<sup>(3)</sup> According to Acharya Charaka, it is Vataja or Vatakaphaja Vyadhi<sup>(4)</sup> and Acharya Vagbhata mentioned it as a type of Vataja Shiroroga.<sup>(5)</sup> Ardhavabhedaka is characterized by Bheda (splitting type of pain), Toda (pricking type of pain), Bhrama (vertigo), Ardhaparshwa Shirashula (pain in right or left of head) appearing in intervals of either 10 or 15 days.<sup>(3)</sup>

Our Acharyas have mentioned Dinacharya (daily regimen)<sup>(6)</sup> and Ritucharya (seasonal regimen)<sup>(7)</sup> elaborately. The change in the lifestyle, food and atmosphere have influenced the human being's lifecycle and thus have an influence on Tridoshas. The diet and present life style like fermented and baked foods, chocolates, dairy products and changes in sleep pattern like awakening in night time and sleeping in day time are predisposing factors of Ardhavabhedaka. Stress and Strain are also predisposing factors.<sup>(8)</sup> When Ardhava bhedaka is not treated or poorly treated may lead to complications of Eye and ENT.<sup>(9)</sup>

Ardhavabhedaka can be correlated to Migraine. According to WHO, it is the third most prevalent medical condition in the world, affecting 14.7% of the population annually.<sup>(10)</sup> Its prevalence is the highest during young and middle adulthood and peaks between the age of 30 and 39, in this period 28.1% of women and 9.0% of men will suffer from Migraine.<sup>(11)</sup>

Migraine is a complex neurological disorder that manifests with recurrent unilateral headache, sometimes associated with nausea, vomiting, photophobia and phonophobia.<sup>(12)</sup> Migraine is still under diagnosed and undertreated. Exact mechanism of Migraine is still not fully understood. The available treatment is also not free from drawbacks like – drug dependence, drug withdrawal syndrome, relapse of headache within hours and chances of getting chronic headache.

As per Ayurveda, 'pain cannot occur without involvement of vata dosha'.<sup>(13)</sup> Agnikarma having ushna (hot), teekshna (penetrating) property will pacify the aggravated vata dosha and thus Agnikarma can be beneficial in Ardhavabhedaka.

Furthermore, Agnikarma is easy and quick procedure to perform and also cost effective. Thus, Agnikarma has been selected as the choice of treatment procedure in this study.

Here a 23 years old female diagnosed as Ardhavabhedaka with all the clinical features treated with Mrudu Anulomana with Gandharvahastadi Taila (dose depending upon the Koshta) followed by Gajapippali Agnikarma for 4 sittings with the interval of 7 days. The before treatment and after treatment clinical features, signs and symptoms were analyzed and showed an encouraging results.

**Case Study**

A 23 years old female patient reported to OPD of Shalakyta Tantra, JSS Ayurveda Medical College and Hospital, Mysuru on the date of 14/05/23 with

**Chief Complaints**

Pain in right half of head since 1 ½ years.

**Associated Complaints**

Nausea, Vomiting, Sensitivity to light and sound since 1 ½ years.

**History of Present Illness**

Patient was apparently normal 1 ½ years back. Gradually she developed pain in right half of head associated with nausea, vomiting, sensitivity to light and sound. The pain got aggravated when she exposed to hot climate, sun light, during travelling and hunger. The pain was pulsating in nature and more in the region on eyebrow, temporal side and forehead of right side. The pain got relieved on vomiting.

**Personal History**

Aahara : Mixed  
Vihara : Nothing Specific  
Nidra : Sound Sleep  
Vyasana : Nil  
Agni : Vishamagni  
Mala : Regular, Once in a day  
Mutra : 4-5 times/day

**Menstrual History**

Menstrual Cycle : 28days/month, Regular  
Bleeding Phase : 4-5 days

LMP: 6/5/23

Menarche: 12years

**General Physical Examination**

Pulse: 72b/min

BP: 120/80mm of Hg

Temperature: 98.2°F

Respiratory Rate: 20t/min

**Systemic Examination**

CVS: S<sub>1</sub>, S<sub>2</sub> heard

RS: NVBS heard

CNS: HMF intact

P/A: Soft, Non-tender, No organomegaly

**Examination of Head**

1. Head Posture – NAD Clinically

2. Circumference of Head – 51cm

3. Examination of Forehead

Wrinkles – present, symmetrical

Facial asymmetry – Not detected

4. Distribution of Hairs – Uniform

5. Texture of Hairs – Soft, Straight

6. Scalp Examination – NAD

**Treatment**

Mrudu Anulomana with 30ml of Gandharvahastadi Kashaya (depending upon Koshta), was given after screening. (Patient got 6 vegas)

**Agnikarma**

- Equipments – Gajapippali (Scindapsus officinalis)
- Schedule – 4 schedules at the interval of 7 days
- Type: Bindu (Dot type) (Dimension-2-3 mm)
- Time: Morning (after breakfast)
- Site: Shankha Pradesha [Temporal region – Pterion] (0.3 sec contact)<sup>(14)</sup>

- Pre-procedure: Before Agnikarma, site was cleaned with Triphala Kashaya to avoid any possibility of infection. Gajapippali was heated till red hot. Mixture of Honey and Ghrita in unequal quantity was kept ready.
- Procedure: Patient was asked to lie in Supine position. Most tender point was elicited and marked on temporal side of face. With red hot Gajapippali, a small dot type burn, till Twak Dagdha (superficial burn) lakshanas appear.
- Post-procedure : Immediately after Agnikarma, mixture of Honey(1ml) and Ghrita(2ml) was applied to that site

**Instructions:**

After Agnikarma, patient was instructed to avoid washing that area for 24hrs to avoid any infection and was instructed to apply mixture of Honey –Ghrita 2 times a day for next 7 days for better wound healing effect.



Fig 1: Gajapippali



Fig 2: Heated tip of Gajapippali



Fig 3 : Site of Performing Agnikarma

**Table No.1 - Assessment w.r.t Subjective Parameters**

Sl. No	Clinical Features	BT15/5/23	Sadyo Virechana 15/5/23	Agnikarma				Follow-up	
				1st Day 16/5/23	8th Day 23/5/23	15thDay 30/5/23	22nd Day 6/6/23	30thDay 14/6/23	60th Day 14/7/23
1.	Severity of Headache	Grade 4	Grade 4	Grade 4	Grade 2	Grade 0	Grade 0	Grade 0	Grade 0
2.	Duration Of Headache	Grade 3	Grade 3	Grade 3	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0
3.	Nausea	Grade 2	Grade 2	Grade 2	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0
4.	Vomiting	Grade 1	Grade 1	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
5.	Vertigo	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
6.	Photophobia	Grade 1	Grade 1	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
7.	Phonophobia	Grade 1	Grade 1	Grade 1	Grade 0	Grade 0	Grade 0	Grade 0	Grade 0
8.	HIT -6 Score	68	68	68	52	36	36	36	36

**Table No.2 - Assessment w.r.t Objective Parameters**

Sl. No	Assessment Criteria	Before Treatment		After Treatment	
		Right	Left	Right	Left
1.	Peak Systolic Velocity (cm/sec)	81	69	53	46
2.	End Diastolic Velocity (cm/sec)	37	32	27	21
3.	Resistive Index	0.54	0.53	0.49	0.54

**Investigations:** Transcranial Doppler Study by using Mindray DC 80 Ultrasound

**DISCUSSION**

Agnikarma an ancient time tested Thermal Microcautery is a novel minimally invasive intervention indicated as Vedanasthapaka in many conditions including Ardhava bhedaka. Gajapippali Agnikarma proved to be effective in the Grade 4 and 3 with respect to subjective and objective criteria. The Transcranial Doppler study by using Mindray DC 80 Ultrasound suggestive of decrease in the Peak Systolic

Velocity, End Diastolic Velocity and Resistive Index respectively after the treatment. This shows that the heat generated by the burnt tip of Scindapsus officinalis over the nerve endings of the dermal tissue in temporal part bilaterally has generated a new hypothesis explaining the neuro modulation technique which is helpful in the management of Migraine.<sup>(15)</sup> The concept of Thermal Microcautery is used in this procedure by utilizing a drug Agnidagdha Gajapippali which stimulates the peripheral nerve field (PNFS) leads to neuromodulation.<sup>(16)</sup> The primary objectives were assessed by Visual Analogue Scale, and in the secondary outcomes there was improvement in the physical activities and the quality of life.

The herb Scindapsus Officinalis Gajapippali which contains the Scindapsin, Sterol, Rhamnose, Fructose, Glucose, Xylose, Methanolic extract and the ethanolic extract shows Analgesic, Anti-inflammatory and Anti-microbial Properties.<sup>(17)</sup> Gajapippali Agnikarma is a type of thermo therapy which changes the cutaneous core temperature of the soft tissues by improving the certain conditions like pain and tender. It also

accelerates the blood flow and decreases the inflammation and the odema of the vascular endothelial walls.<sup>(18)</sup> In total it is one of the effective therapy in the management of Migraine and which gives a short term rehabilitation regarding headache as concern.

Mrudu Anulomana which has been administered to all the subjects prior to the treatment has also acted as a Shodhaka Chikitsa to eliminate the Pitta, Kapha and Vata respectively. Hence, it is essential to administer any treatment in Ardhavabhedaka only after Shodhana Karma. Ashtanga Hridaya of Vagbhata explains about the purificatory procedures of Panchakarma in the management of Shirorogas. The Mrudu Anulomana detoxifies the body tissues and micro-circulatory channels and thus maintains the coordination of tridoshas in the body.<sup>(19)</sup>

The local heat generated by Gajapippali Agnikarma has improved the circulation which may helped the circulating vessels to excrete the endotoxins. At the same time, the peripheral heat exerted on the dermis acts as an analgesic in nature.<sup>(20)</sup>

## CONCLUSIONS

Ardhavabhedaka is a Tridoshaja Vyadhi and Vatapradhana Tridoshaja Chikitsa are very efficacious in its management. Gajapippali Agnikarma has significant relief in the symptoms of Ardhavabhedaka(Migraine). No adverse effects were seen such as pain, delayed wound healing and other complications. Hence Agnikarma has a definite role in pain relief in patients of Ardhavabhedaka. Agnikarma is a non-pharmacological, OPD procedure required minimum equipment, gives rehabilitation in short time, so that it can be utilized for pain management in Ardhavabhedaka. Further studies of large sample size with different pain conditions are essential to standardize the study and procedure.

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