

A PILOT STUDY ON CLINICAL EFFICACY OF *GUDUCHYADITAILA MARSH-NASYA* IN THE MANAGEMENT OF *ARDHAVABHEDAKA* (MIGRAINE)

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ABSTRACT

Introduction: Acharya *Sushruta* described *Ardhavabhedaka* in *Uttar-tantra* under *Shiroroga* occurs due to Tridosha. The signs and symptoms of migraine can be correlated with *Ardhavabhedaka*, *Ardhavabhedaka*(migraine) is an episodic headache and disturb our routine life. Many medicine have been tried and a lot are still under contemporary research, but these modern drugs are less acceptable due to their drawbacks and side effects. In contrast to that ayurveda has a verity of natural medication in the treatment of various types of Shiro Roga specially *Nasya karma* is considered as best treatment for *shiroroga*, *Guduchyadi taila* is mentioned by Acharya *Bhavprakashvataraktaadhikar* and in context of shiroroga chikitsa. So, an attempt has been made to assess the efficacy of *Guduchyadi tailanasya* in the management of *Ardhavabhedaka* in this pilot study. **Aim and objective:** The aim of this study was to evaluate the efficacy of *Guduchyadi Taila Marshnasya* in the management of *Ardhavabhedaka* (migraine). **Materials and methods:** Total 10 patients were selected from *Shalakya Tantra* OPD, Parul institute of Ayurveda for *Marshnasya* with *Guduchyadi Taila*. **Results:** *Guduchyadi tailanasya* provided highly significant result in half headache, nausea, vomiting, vertigo and photophobia. No any complication of the procedure or adverse drug reaction was found during this trial. **Conclusion:** *Guduchyadi Taila Nasya* is effective on *Ardhavabhedaka*.

KEYWORDS: *Guduchyadi Taila*, *Ardhavabhedaka* (Migraine), *Marshnasya*.

INTRODUCTION

Ardhavabhedaka is one of the *Shiroroga*, which can be correlated with migraine having symptoms like paroxysmal unilateral (half cranial) headache sometime associated with vertigo, nausea, photophobia and phonophobia. As per Acharya *Sushruta* *Ardhavabhedaka* occur due to vitiation of *Tridosha*.^[1,2] While Acharya *Charaka* had mentioned that vitiated *Vata/Vata - Kapha* are involved in manifestation of *Ardhavabhedaka*^[3], while Acharya *Vagbhatta* believed that *Ardhavabhedaka* occurs due to vitiated *Vata*.^[4]

According to International headache society, migraine is the most common neurovascular headache and is a common disabling primary headache disorder. It is now recognized as a chronic illness, not simply as headache. Migraine headache often limited the degree to which headache sufferers could engage in regular activities.^[5] In the global burden of disease survey 2010, it was ranked as the third most prevalent disorder and 7th highest specific cause of disability worldwide.^[6] The world health organization (WHO) ranks migraine among the world's most disabling medical illness. It is three times more common in women than men.

AIM AND OBJECTIVE

To evaluate the efficacy of *Guduchyadi Taila Marshnasya* in the management of *Ardhavabhedaka*(migraine).

MATERIALS AND METHODS

Total 10 patients were selected fulfilling the criteria for diagnosis of *Ardhavabhedaka* (migraine) from *Shalakya Tantra* OPD. Parul Ayurved Hospital, Parul Institute of Ayurved, Limda, Vadodara, Gujarat.

Inclusion Criteria

- Age between 18 to 50 years.
- Patient of either gender will be taken.
- Patient with classical symptoms of *Ardhavabhedaka*.

Exclusion Criteria

- Patient suffering from other systemic disease.
- Patient who are contraindicated for *Nasya*.
- Patient of *Ardhavabhedaka* who are under other treatment modalities.

Diagnostic criteria

- Subjective criteria as follows

1. *Ardhashirashoola*

2. *Manyashoola*
3. *Bhrama*
4. *Hrillas*
5. *Chhardi*
6. *Prakaashashahisnuta*
7. *Sabdaashahisnuta*

- The diagnosis was made based on the criteria of **Migraine** provided by international headache society.^[7]

1. At least 5 attack in history.
2. Headache attacks lasting 2-72 hr.
3. Headache has at last 2 of the following
- Unilateral location

- Pulsating quality
- Moderate or severe pain intensity
- Aggravation by or causing avoidance of routine physical activity.
- 4. Headache not attributed to any other disorder.
- 5. During headache at least one of the followings:
- Nausea and/or Vomiting
- Photophobia and Phono-phobia

Drug

Guduchyadi Taila Prepared from GMP certified Parul Ayurved pharmacy, Parul Institute of Ayurved, Limda, Vadodara, Gujarat.

INGREDIENTS OF GUDUCHYADI TAILA^[8]

Dravya name	Latin name	Rasa	Guna	Virya	Vipak	Part use
Guduchi ^[9]	<i>Tinosporacordifolia</i>	Tikta	Guru, sniggha	Ushna	Madhura	Mula/Kanda
Draksha ^[10]	<i>Vitisvinifera</i>	Madhur, Kashay	Guru	Sita	Madhur	Phala
Yastimadhu ^[11]	<i>Glycirrhzaglabra</i>	Madhur, Kashay	Guru, Snigdha	Sita	Madhur	Mula
Pundarika ^[12]	<i>Nelumbiumspeciosum</i>	Madhura	Dahprashman, sita	sita	madhura	pushpa /kamalnai
Manjistha ^[13]	<i>Rubiocodifolia</i>	Madura, Tikta, Kashay	Guru	Ushna	Katu	Mula
Punarnava ^[14]	<i>Boerhaaviadiffusa</i>	madhura, tikta, kashay	Laghu, Tikshna	Madhura	Ushna	Mula/panchang

GRADATION

Duration of Headache (<i>ArdhaShirashoola</i>)	Nausea (<i>Hrillas</i>)
0 = Nil	0 = Nil
1 = 1-3 hours/day (Mild headache)	1 = Occasionally
2 = 3-6 hours/day (Moderate headache)	2 = Moderate, but does not disturb the routine work
3= 6-12 hours/day (Severe headache)	3= Severe, disturbing routine work

Vomiting (<i>Chhardi</i>)	Gradation for photophobia (<i>Prakashashahisnuta</i>) & Phonophobia (<i>SabdaAshahisnuta</i>) Symptoms
0 = Nil	0 = No symptoms
1 = Only if headache does not subside	1 = Mild (can do his/her work)
2 = Vomiting 1-2 times	2 = Moderate (forced to stop work)
3 = Vomiting 2-3 times	3 = Severe (Forced to take medicine)

Vertigo (<i>Bhrama</i>)	Cervical pain (<i>Manyashoola</i>)
0=Nil	0 = No
1=Feeling of giddiness	1= Yes
2 = Patient feels as if everything is revolving	
3 = Revolving signs + black outs	

OBSERVATION

Observation was done on above mentioned criteria before and after treatment. The same was recorded in the observation table and analysis was done on the same.

In present clinical trial, maximum number of patients, i.e. 70 % patients belonged to age group of 21–30.100%

of patients were female, 30% were married, 70. % of patients had education till graduation, 60% of patients were from middle class, 50. % of patients were having moderate appetite, 60 % patients were having regular defecation.

In the present study, upon observing the etiological factors of *Ardhavabhedaka*, it was found that maximum number of patients were having *Vishamashana* (taking food irrespective of time/hunger) that is 70%; while 20% of patients were doing *Adhyashana* (having food before digestion of previous meal) and 40% of patients had dominance of *Lavana Rasa* (salty) in the regular food.

By further analysis, it was observed that 100% of patients had headache, 60% of patients had nausea, 10% of patients had vomiting, 30% had vertigo, 90% of the patients complained of photophobia, 30 % of patients had Phonophobia and 20% of patients had cervical pain.

SUBJECTIVE CRITERIA

Before treatment

No.	Pain in half side head	Nausea	Vomiting	Vertigo	Photophobia	Phonophobia	Cervical pain
1	3	2	-	-	2	3	-
2	2	2	-	-	1	-	-
3	3	-	-	-	2	2	-
4	2	2	-	1	-	-	-
5	3	-	-	2	2	-	1
6	1	-	-	-	2	2	-
7	3	-	2	-	2	-	-
8	3	2	-	2	2	-	-
9	3	2	-	-	2	-	1
10	3	2	-	-	1	-	-
Total	26	12	2	5	16	7	2

SUBJECTIVE CRITERIA

After treatment

No.	Pain in half side head	Nausea	Vomiting	Vertigo	Photophobia	Phonophobia	Cervical pain
1	0	0	-	-	1	0	-
2	0	0	-	-	0	-	-
3	0	-	-	-	1	0	-
4	0	0	-	0	-	-	-
5	2	-	-	2	2	-	-
6	1	-	-	-	1	1	-
7	0	-	-	0	1	-	-
8	0	2	-	0	1	-	-
9	0	0	-	-	1	-	0
10	1	1	-	-	0	-	-
Total	4	3	0	2	8	1	0

Table: Effect of therapy on symptoms of migraine.

Sr. no.	Symptoms	BT	AT
1	Pain in half side head	26	4
2	Nausea	12	3
3	Vomiting	2	0
4	Vertigo	5	2
5	Photophobia	16	8
6	Phonophobia	7	1
7	Cervical pain	2	0

AT-After treatment

After treatment, it was observed that 30% of patients had headache, 20% of patients had nausea, 0% of patients had vomiting, 10% had vertigo, 70% of the patients complained of photophobia, 10% of patients had phonophobia and 0% of patients had cervical pain.

BT-Before treatment

Before treatment, it was observed that 100% of patient had headache, 60% of patient had nausea, 10% of patients had vomiting, 30% had vertigo, 90% of the patients complained of photophobia, 30% of patients had phono phobia and 20% of patients had cervical pain.

RESULT

The present trial drugs provided highly significant result in headache, nausea, vomiting, vertigo and photophobia. No any complication of the procedure or adverse drug reaction was found during this trial.

Sr. no.	Symptoms	BT(score)	AT(score)	Improvement
1	Pain in half side head	100%	30%	70%
2	Nausea	60%	20%	40%
3	Vomiting	10%	0%	100%
4	Vertigo	30%	10%	20%
5	Photophobia	90%	70%	20%
6	Phonophobia	30%	10%	20%
7	Cervical pain	20%	0%	100%

ASSESSMENT OF RESULT

Complete remission: 100%

Marked Improvement: 75-99%

Moderate Improvement: 51-75%

Mild Improvement: 26-50%

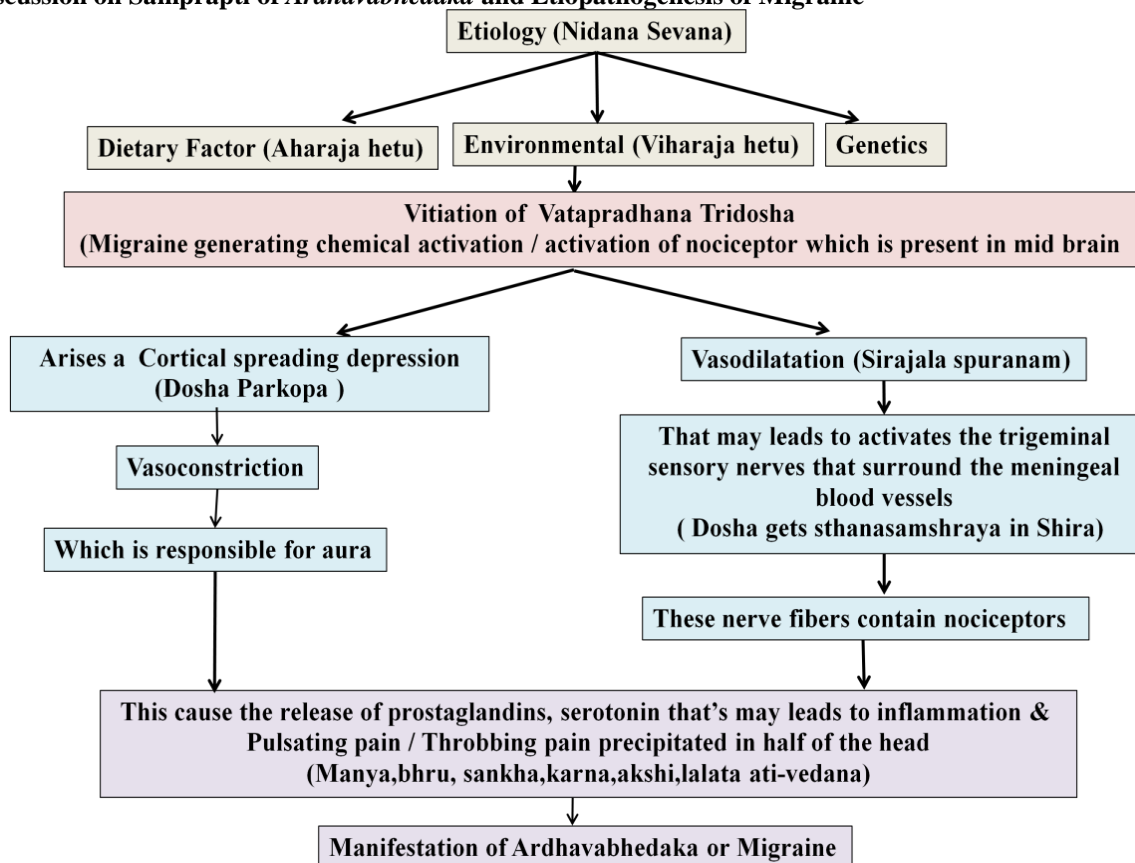
No Improvement: 0-25%

OVERALL EFFECT OF THERAPY

On analyzing overall effect of therapy; maximum number of patients had marked improvement, that is, 11 (78.6%); 2 (14.3%) patient had complete remission while 1 (7.14%) patient had moderate improvement.

DISCUSSION

1) Discussion on Samprapti of Ardhavabhedaka and Etiopathogenesis of Migraine^[15]

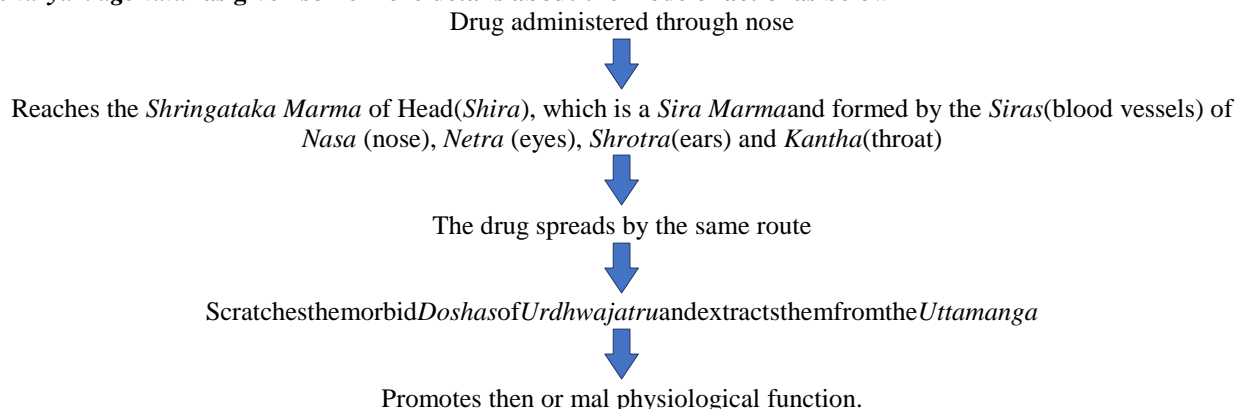


2) DISCUSSION ON PROBABLE MODE OF ACTION OF NASYA

Acharya Sushrutha has mentioned that *Shringataka Marmas* a *Sira* *Marma* formed by the union of *Siras* (blood vessels) supplying to nose, ear, eye and tongue. Thus we can say that drug administered through *Nasya* may enter the above *Sira* and purify them. Acharya Sushrutha has also mentioned the complications of *Nasya Karma* as excessive eliminative errhine may cause

Mastulunga Srava, which suggest the direct relation of Nasal pathway to brain.

Acharya Vagbhata has given some more details about the mode of action as below^[16]



3) DISCUSSION ON DRUG

Lipid soluble substances have greater affinity for passive absorption through the cell walls of nasal mucosa. "The cilia of the olfactory cells and perhaps the portions of the body of the olfactory cells contain relatively large quantities of lipid materials." Non-polar hydrophobic molecules diffuse through the lipid bilayer of the plasma membrane, into and out of cells. Such molecules include oxygen, carbon dioxide and nitrogen gases; fatty acids, steroids, and fat soluble vitamins. It is a route of absorption of some nutrients and excretion of waste by body cells which are lipid soluble. Further drug absorption can also be enhanced by local massage and fomentation.

PROBABLE MODE OF ACTION OF GUDUCHYADI TAILA

Guduchyaditaila Nasya

Lipid soluble substance it has greater affinity for passive absorption

Lipid substance easily and rapidly crosses the mucous membrane

Guduchyaditaila dravya mainly *vata-kapha* property

Nasya dravya stimulates nerve ending

Olfactory nerve

Olfactory bulb

Olfactory tract

Impulses are transmitted to the brain

Diminish the pain

best treatment of *Urdhwa-jatargata vikar*, so *Guduchyadi Taila Marshanasya* is effective in *Ardhavabhedaka* (Migraine) after instilling the medicine into the nostrils it gets absorbed by mucous membrane of nose due to high vascularity and after absorption of the drug it may follow neural and circulatory course to reach the site of action. It can also influence the psychic level (limbic system) and general circulation and ultimately produce the action (excitation or sedation).

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CONCLUSION

Shira is considered as *Uttamanga* and to protect it from *Nija* and *Agantu jNidana*. *Nasya Karma* is the

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