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CLINICAL EVALUATION OF DHATRYADIKWATHA AND SHADBINDUTAILANASYA IN THE MANAGEMENT OF "ARDHAVBHEDAKA" W.S.R TO MIGRAINE

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ABSTRACT

Ardhavbhedak is a type of *shiroroga* which is associated with unilateral headache caused by *Vata* alone or in association with *Kapha*. (1). The pain is very agonizing and may even impair functions of eye and ear. Its symptoms are most appropriately related to Migraine a kind of headache associated with nausea and other symptoms which hamper the day to day life of the patient and its incidence has increased these days which is a matter of concern. The objective of the present study was to evaluate the efficacy of *Dhatryadikwatha* and *ShadbinduTailaNasya* in the treatment of *Ardhavbhedaka* w.s.r to Migraine .For the present clinical study 30 patients were selected randomly on the basis of classical symptoms of *Ardhavbhedaka* with age group 10 years to 65 years with chronicity of disease more than 6 months and less than 3 years. The 30 patients were divided into threeequalGroups:- **1.Group A** - patients of *Ardhavbhedakaroga* were given with *Dhatrayadikwatha* alone in quantity of 40 ml twice a day for 60 days and a follow up of 15 days. **2**. **Group B**- 10 patients were given *shadbindutailanasya* for 15 days alternatively and follow up of next 30 days.**3. Group C**- 10 patients were given both *Dhatryadikwatha* (quantity of 40 ml twice a day for 60 days) and *shadbindutailanasya (nasya* for 15 days alternatively) and (follow up for 15 days).And it was observed that the c group got the maximum relief.

Keywords: *Ardhavabhedaka*, Migraine*, Nasya, Shadbindutaila, Dhatryadikwatha, Ayurveda*

INTRODUCTION

Ayurveda is an ancient system of medicine known to mankind more than 5000 years**. "*Ayu*"** means Life and **"*Vedas*"** means Science. It covers all the spheres of human life. It is not merely a medical science, but a philosophical and faithful truth given birth by

our great ancestral sages, through their experience, logic and power of wisdom. They had found it true and proved it a truth of all the times. The aims of Ayurveda are **"SvasthasyaSvasthyaRakshanam"** and **"AaturasyaVikaraPrashamanamch"** which means to maintain the positive health of a person, the next objective being the cure of manifested disease[1]. According to *Ayurveda,* one should not be only free from physical ailment, but also should be mentally happy and spiritually elevated.

The word *Ardhavabhedaka* has two components viz. **Ardha** and **Avabhedaka. A rdha** means half or half side. **Ava** means bad prognosis. **Bhedaka** means breaking through, perforating or bursting out type of pain. Thus literal meaning of *Ardhavabhedaka* is perforating or bursting out like pain in one half of the head either right or left. **Chakrapani**, the commentator of **Charaka Samhita** made it clear by saying *Ardhavabhedaka* means *"ArdhaMastakaVedana"*. **According to Acharya Charaka-**Either alone or in combination with *kapha* the vitiated *vata* seizes the one half of head and causes acute neuralgic pain in the sides of the neck, eyebrow, temple, ear, eyes or forehead of one side. This pain is very agonizing like that of churning rod (red hot needle). This disease is called *Ardhavabhedaka.* If the condition becomes aggravated, it may even impair the functions of the eye and ear[2]. **According to Acharya Vagbhatta**- Pain in half side of head is considered as Ardhavabhedaka[3,4]. **According to *Sushruta-*** Severe tearing and pricking pain in one half of the head associated with giddiness. These features appear every fortnightly or ten days or any time[5,6].

All the scholars have mentioned this symptom that the headache of *Ardhavabhedaka* occurs in one half of the head. The specific sites of headache are also mentioned in texts. *Ardhavabhedaka* can be best managed with *Ghrita, Taila* and *Majja, ShiroVirechana, Kaya Virechana, Nadisveda, Niruha* and *Anuvasana, Basti, Upanaha* and *Shiro-basti*. In any system of medicine there is no procedure for eradicating the disease from the root *ausadhis* having *Ushna, Snigdha, etc Vatahara* or *Vata-Kaphahara* properties. Thus, here an attempt has been made to evaluate the efficacy of *DhatryadiKwath* mentioned by *acharyaVangsen* and *ShadbinduTailaNasya* in the management of *ardhavbhedaka.*[9]

It has been said that *shadbidutailanasya* cures all types of *shirogas*. From the above observations, *Shadbindutailanasya* from *Chakradutta*, which is having *Vatkaphahar* properties, has been selected as *Shodhana* therapy in the present study. So here the clinical study has been planned to find out the "Clinical evaluation of *DhatryadiKawatha* and *Shadbindutailanasya* in the management of *Ardhavbhedaka* w.s.r to Migraine"

MIGRAINE: Migraine is the most common vascular headache, Unfortunately, about half of all patients with migraine are not properly diagnosed, and those who are properly diagnosed often don't receive appropriate treatment There is no known cause for migraine and no test for it. For years, even headache experts argued about what makes a migraine a migraine. Finally, in the 1960s, a group of experts, "the Ad Hoc Committee on

Classification of Headache," came up with a one-paragraph description of what constitutes a migraine headache: There is no known cause for migraine and no test for it[10].

"Recurrent attacks of headache widely varied in intensity, frequency, and duration. The attacks are commonly unilateral in onset; are usually associated with loss of appetite and, sometimes, with nausea and vomiting; in some (patients they) are preceded by or associated with conspicuous sensory, motor, and mood disturbances; and they are often familial."[11]

By the early 1980s, doctors from the International Headache Society (IHS) decided they needed a better way to diagnose migraine. They separated migraine into several types, the most important of which were migraine without aura and migraine with aura. These had previously been called *common* migraine and *classic* migraine.

Chronic migraines may occur from overuse of migraine medications (called a rebound headache) or may develop over time (called transformed migraine). Migraine can be a challenging disease to diagnose because it is a clinical diagnosis based on symptoms that are subjective and verifiable only by the patient[13].

AIMS
1. Conceptual and clinical study of *Ardhavbhedaka* vis-a-vis Migraine.
2. To evaluate the effect of *DhatrayadiKwath* and *ShadbinduTailaNasya* in the management of *Ardhavbhedaka.*

OBJECTIVE:
1. To study the concept of *Ardhavbhedaka* as per as *Ayurvedic* text and their discussion with current medical prospective.
2. To evaluate clinically the effect of *DhatrayadiKwath* and *ShadbinduTailaNasya* in the management. Of *Ardhavbhedaka*

MATERIALS AND METHODS
Ausadhi yoga:
1. Dhatrayadikwath (Vangsenshiroroga/114-115)
2. Shadbindu Tail (chakradutta)

Table 1: Showing the ingredient of *Dhatrayadikwath:*

Dravya	Ras	Guna	Virya	Vipaka	Doshkarma
Amalaki (*Emblicaofficinalis*)	*Panch rasa Lavanrahit*	*Laghu, Ruksha, Sheeta*	*Sheeta*	*Madhura*	*Tridoshhar*
Haritaki (*TerminaliaChebula*)	*Kashayapradhana, Panchras, Lavanrahit.*	*Laghu, Ruksha*	*Ushna*	*Madhura*	*Tridoshhar, Vatashamak*
Bibhitaki(*Terminaliabelerica*)	*Kashya*	*Laghu, Ruksha*	*Ushna*	*Madhura*	*Tridoshhar, Kaphahar*
Haridra (*curcuma longa*)	*Tikta, Katu*	*Laghu, Ruksha*	*Ushna*	*Katu*	*Kaphavatashamak*
Giloye (*Tinosporacordifolia*)	*Tikta, Kashya*	*Guru,Snigdh*	*Ushna*	*Madhura*	*Tridoshhar*
Chirayata (*Swertiachirayata*)	*Tikta*	Laghu,*Ruksha*	*Ushna*	*Katu*	*Tridoshhar Vatpitashamak*
Neem (*azadirachtaindca*)	*Tikta, Kashya*	*Laghu*	*Sheeta*	*Katu*	*Kapha pitta shamak*

Dose: 40 ml
Route of Administration: orally
Anupana: Luke warm water
Duration: 60 days
Follow Up: After every 15 days

Table 2: Showing the ingredient of *Shadbindu tail* for *Nasya*

Drug	Ras	Guna	Virya	Vipak	Doshkarma
Erand(Ricinus Communis)	Madhur, Katukashaya	Snighdha, Tikshana, sooksham	Ushna	Madhura	Kapha vat shamak
Tagar (ValerianaWallich)i	Tikta, Katu, Kashya	Laghu ,Snigdh	Ushna	Katu	KaphaVatashamak
Shatavari (Asparagus racemosus)	Madhura, Tikta	Guru,Snigdh	Sheeta	Madhura	Vatapittshamak
Jeevanti (Leptadenia reticulate)	Madhura	Laghu,Snigdh	sheeta	Madhura	TridoshShamak, Especially vata pita shamak
Rasna (PlucheaLanceolata)	Tikta	Guru	Ushna	Katu	Kaphavatashamak
Saindhav, (Rock Salt)	Lavana	Laghu,Snigdh, Tikshana	Sheeta	Madhura	Tridoshara
Brungra(Eclipta alba)	Katu, Tikta	Ruksha,Laghu	Ushna	Katu	Kaphavatashamak
Vidanga (Embeliaribes)	Katu ,Kashya	Laghu,Ruksha, Tikshana	Ushna	Katu	Kaphavatashamak
YashtimadhuGlycyrrhizagla bra)	Madhura	Guru ,Snigdh	Sheeta	Madhura	Vata pita shamak
Shunthi (ZinziberOfficinale)	Katu	Laghu,Snigdh	ushna	Madhura	Kaphavatashamak

Dose: 6 drops each nostrils
Route of Administration: Nasal route
Duration: 15 days alternatively
Follow Up: After 15 days

METHOD:
- **Centre of study:** Jammu Institute of *Ayurveda Rugnalaya*, Jammu.
- **Method of Sampling:** A Total of 30 patients were selected according to the signs and symptoms in accordance with *Ardhavbhedaka* (migraine)

- **Study design:** Clinical study
- **Source of Data:** The study was conducted on 3 different groups clinically diagnosed selected from the O.P.D and I.P.D of J.I.A.R.
- **Grouping pattern:** All the 30 patients have been randomly divided into three groups with 10 patients in each group.

INCLUSION CRITERIA:
- The patients having classical sign and symptoms of *Ardhavabhedak* as mentioned in Ayurvedic texts like *Tod, Bhed, Shoola* and recurrent attacks of headache, site, varied intensity, frequency, duration, with or without nausea vomiting, aura, GIT symptoms etc. were considered for the diagnosis.
- Patients of either sex of age more than 10 yrs and less than 65 years.
- Patients with chronicity of disease more than 6 months and less than 3 years

EXCLUSION CRITERIA:
- Patients suffering from fever, sinusitis.
- Patients suffering from secondary headaches caused by meningitis, tumor encephalitis.
- Patients suffering from hypertension.
- Patients with the history of head injury.
- Patients suffering from cervical spondylosis and refractive errors.
- Patients using any other systemic drugs which may alter the results of study.

CRITERIA FOR ASSESSMENT

a) SUBJECTIVE PARAMETERS: Patient was diagnosed on the basis of *Ardhavabhedaklakshanas* as described in *Ayurvedic* classics. Parameters for assessment (as per I.H.S) are as follows.1.Severity, 2.Frequencyofheadache, 3.Durationofheadache, 4.Nausea, 5.Vomiting, 6.Giddiness, 7.Aura, 8.Associated symptoms -Stiffness of neck, Photophobia, Phonophobia, Blurred vision, Sleep disturbance, Heaviness of eye, Diarrhea, *Pratishaya, Akshishotha*

These were graded as follows and were assessed before and after active treatment.

b) OBJECTIVE PARAMETERS: **Blood** - Hb%, Total Leucocyte count, Differential Leucocyte count, ESR, Random blood sugar. **Urine** - Albumin , Sugar, Microscopy

Radiological examination: x-ray was conducted where found necessary. Ophthalmological examination was done in doubtful cases.

INTERVENTIONS:

Grouping pattern:

1. Group A - 10 patients of *Ardhavbhedakaroga* were provided with *Dhatrayadikwatha* alone in quantity of 40 ml twice a day for 60 days and a follow up of 15 days.

2. Group B- 10 patients were given *shadbindutailanasya* (6 drops in each nostril) for 15 days alternatively and follow up of next 30 days.

3. Group C- 10 patients were given both *Dhatryadikwatha* (quantity of 40 ml twice a day for 60 days) and *shadbindutailanasya* (6 drops in each nostril) *(nasya* for 15 days alternatively)* and (follow up for 15 days).

CRITERIA FOR ASSESSMENT OF RESULT: The efficacy of therapy was assessed on the basis of subjective parameters before and after the treatment.

Table 3: Score will be given as follows:

Symptoms	0	1	2	3	4
1.Severity of attack	No Headache	Mild headache (aware only if pay attention to it)	Moderate headache(can ignore at times)	Severe headache(can't ignore but can do usual activities)	Excruciating headache (cant do anything)
2.Frequency of headache	Nil	once/week	twice/week	thrice /week	>thrice/week
3.Duration of headache	Nil	1-3 hrs /day	3-6 hrs/day	6-12 Hrs/day	More than 12 hrs /day
4.Nausea	No nausea	Occasional episodes of brief duration	Frequency and prolonged nausea		
5.Vomiting	No vomiting	present before episode	Present before and during Episode	Present during and after episode	
6.Giddiness	No Giddiness	Mild (can do his/her work)	Moderate(Forced to stop work)	Severe(Forced to take rest)	Very Severe (Forced to take medicine)
7.Aura	Absent	present	no change		
8.Associated symptoms	No symptoms	Mild (can do his/her work)	Moderate (forced to stop work)	Severe (forced to take rest)	Excruciating (force to take medicine)

Grading of Assessment: All the Results were Analyzed statistically on the basis of mean (x) , and The signed rank test is applied to find the p value in the grading parameter at $p < 0.05$, $P < 0.01$, $P < 0.001$.

OBSERVATIONS AND RESULT: A Total of 30 patients was selected according to their signs and symptoms in accordance with *Ardhavbhedaka* (migraine) and was categorized randomly in three different groups. The observations quoted from here onwards include the data of 30 subjects, who had completed the entire treatment and follow up period.

Maximum No. of Patients were belonging to the age group of 21:30yrs (63.33%), Females (60%), Hindu (70%), Students (46.67%), Hr. secondary (53.33%), UnMarried (56.67%), Middle class (73.33%), Rural habitat (63.33%),

Maximum No. of Patients were having Mixed diet (53.33%), having moderate Appetite (56.67%), Addiction of Tea and coffee (96.67%), Disturbed sleep (73.33%), *Vatapittaprakriti* (43.33%), *Madhyama – Sara* (100%), *Samhanana* (70 %), *Satmya* (76.67%), *Satva (60%), Pramana (100%), Vyayamashakti (63.33%),* followed by *Vishamagni (26.67%).*

The chief complaints reported from the patients were *Shirahshoola (100%),* Nausea (86.66%), Vomiting (63.33%), Vertigo (46.66%) and Aura (27%).Regarding the associated symptoms 96.67% patients had

Photophobia,73.33% had Phonophobia, 53.33 % had Stiffness of neck, 90% had Sleep disturbance, 66.66 %patients had Heaviness of eyes, Maximum patients were having half sided headache (83.33%), severe headache (56.66 %), excruciating headache (33.33%) acute onset in 83.33% and chronicity of 2-3 yrs (60%) . The duration more than 12 hrs/day in 16.66 % and 6-12 hrs/day was seen in 73.33

% each with episode of twice a week maximum in 60 %, continuous rhythm in 76.67% and daily course in the morning 33.33% was seen. Maximum triggering factors reported were Emotional and Physical stress (93.33%), Sunlight (86.36%), journey (86.67%), Noise and air pollution (76.67%), and Skipping breakfast (26.67%).

RESULT:

Table 4: Effect of therapy on symptoms in Group A

Groups	Mean		d	%age	+ve ranks (AT>BT)	-ve ranks (AT<BT)	Ties (AT=BT)	Z	P
	BT	AT							
severity of headache	3.5	2	1.5	42.8	0	10	0	-2.877	0.002
Frequency of headache	2.0	1.0	0.9	45.0	0	7	3	-2.460	0.0016
duration of headache	3.2	1.8	1.4	43.75	0	10	0	-2.889	0.002
Nausea	1.7	0.8	0.9	52.4	0	8	2	-2.714	0.008
vomiting	1.1	0.5	0.6	54.54	0	6	0	-2.499	0.031
Giddiness	.9	.5	.4	44.44	0	3	1	-2.00	0.125
Aura	0.20	0.20	0.00	0	0	0	2	-3.400	1.000

Table 5: Effect of therapy on symptoms in Group B

Groups	Mean		D	%age	+ve ranks (AT>BT)	-ve ranks (AT<BT)	Ties (AT=BT)	Z	p
	BT	AT							
severity of headache	2.9	1.1	1.8	62	0	10	0	-2.913	0.002
Frequency of headache	2.1	1.0	1.1	52.3	0	8	0	-2.598	0.008
duration of headache	2.9	1.1	1.8	62 %	0	10	0	-2.972	0.002
Nausea	0.9	0.3	0.6	66.66	0	4	1	-2.449	0.031
vomiting	1.00	0.4	0.6	60.0	0	2	0	-2.121	0.063
Giddiness	1.3	0.5	0.8	61.53	0	5	0	-2.070	0.063
Aura	o.40	0.40	0.00	0	0	0	4	-3.400	1.000

Table 6: Effect of therapy on symptoms in Group c

Groups	Mean		D	%age	+ve ranks (AT>BT)	-ve ranks (AT<BT)	Ties (AT=BT)	Z	p
	BT	AT							

severity of headache	3.3	1.0	2.3	69.69	0	10	0	-2.877	0.002
Frequency of headache	3.7	1.0	2.7	72.92	0	10	o	-2.919	0.002
duration of headache	3.11	1.00	2.11	67.84	0	10	0	-2.754	0.004
Nausea	1.8	0.4	1.4	77.77	0	9	0	-2.739	0.004
vomiting	1.4	0.3	1.1	78.5	0	8	0	-2.598	0.008
Giddiness	1.2	0.3	.9	75	0	4	0	-1.841	0.125
Aura	0.30	0.30	0.00	0	0	0	3	-3.400	1.000

TABLE 7: Effect of the therapies in associated symptoms (combined)

Groups	Mean		difference	%age	Z	p
	BT	AT				
Group A (n- 10)	1.311	0.744	0.567	43.24 %	-6.246	<0.001
Group B (n-10)	1.567	0.756	0.811	51.75 %	-6.678	<0.001
Group C (n-10)	1.522	0.533	0.989	64.98 %	-5.988	<0.001

DISCUSSION

Migraine is now recognized as a chronic illness, not simply as headache. Migraine is the most common vascular headache. The prevalence rate of the disease in India is 16-20% and the disease greatly affects the quality of life. Also the diagnosis is based only on the history narrated by patient, which is verifiable. Moreover, it has been reported that most migraines are not treated according to any expert recommendations or accepted evidence. Also WHO has ranked Migraine among the world's most disabling medical illness. The scope for prevention of the disease in modern science is not satisfactory. Hence, an attempt has been made to study the complete aspect of disease and to find the best possible way for the betterment of mankind.

PROBABLE MODE OF ACTION OF DHATRYADI KWATH:

As per *Acharyavangsendhatryadikwatha* is said to cure *ardhavbhedaka* therefore in order to evaluate its efficacy it was selected as a main drug for group A and was combined with *shadbindu tail nasya* in group C. This preparation is taken from *Ayurveda sarsamgraha – kwathprakrana*. Its ingredients have predominantly *laghurukshagunas and ushnavirya* and *madhuravipaka* and *tridoshahar* properties[15].

MODE OF ACTION OF SHAD BINDU TAIL:

The drug must also contain the *Doshapratyanik* properties. 60% of the drug mentioned here are *vatakaphashamak*a. Here *vataDosha* is the *Dosha* to be dealt with and *kaphaDosha* is the dominant *Dosha*of the place to be dealt with. So *vata* whose *Guna*s are *singdha*70% with *UshnaVeerya*60%, 60% with *Madhuravipaka*, so by all virtues narrated above they do normalize the vitiated *vataDosha*. i.e. the vitiated factor and *kapha* i.e. the *Dosha* which dominates the affected part gets the right treatment modality. Another desired property that a formulation should possess is the *vyadhipratyanik* factors. The drugs which clearly deal with the pain i.e. *shoola* are like *shigru*.

PROBABLE MODE OF ACTION OF DRUGS USED IN THE FORMULATIONS FOR NASYA KARMA:

The drugs used in *nasya karma* have the property of *tikshana* (irritant) and *ushanaGuna*. These drugs irritate the mucous membrane of the nose, increase local secretions and eliminate the morbid *doshas* from the nasal canal.

Few points observed during the treatment:
It was observed that the oral drug *Dhatraydikwatha* if consumed on empty stomach caused constipation (11.36%). But if it was taken 15 minutes after breakfast than no side effects were noted and good results in signs and symptoms were observed. This was noted when few patients who were not having their breakfast used to take *kwatha* in the morning. Regarding *Shadbindutailanasya*, the patients had sneezing and burning sensation after the administration of the drug, which was for few minutes and for few days only. This may be due to the *Tikshna* property of the contents, some patients were complaining of worsening their headache in the first few days of *Nasya* therapy. But it was noticed that the type of headache was only heaviness and presence of frontal-ache. This may be due to *Apathyasevana (like Purvivatasevana)* just after the *Nasya* therapy. Some patients developed acne on their face it was due to excessive *mukhaabhyanga* before *nasya* so it was reduced.

CONCLUSION

On the basis of study of review of literature, observations noted during study, findings collected after clinical trial and the results obtained after statistical analysis, the following conclusions are drawn.

• *Shirah* is a main control system of all bodily ailments. Alteration in the activity of the *Shirah* influences all body tissues and it is also influenced by body tissues in an inverse order.

• Most Migraine headaches are characterized by severe throbbing pain on one or both sides of the head (which may move to the other side), nausea, vomiting, dizziness and visual disturbances caused by dilation and constriction of the blood vessels in the head.

• Migraine sufferers had acute onset with severe intensity and unilateral episodic pain with continuous rhythm.

• Migraine has a circadian rhythm similar to several diseases of vasoconstriction, such as MI, angina pectoris and ischemic stroke.

• Most sufferers were taking painkillers, which suggested that they had never consulted a doctor or have stopped doing so, which shows the chronic nature of the disease..

• Both *DhatrayadiKwatha* and *ShadbinduTailaNasya* were having significant improvement on all the parameters like Headache, Nausea, and Vomiting and on other associated symptoms of the disease *Ardhavabhedaka*. But when both *DhatrayadiKwatha* and *ShadbinduTailaNasya* were given together in combined group, it showed the augmented effect.

• In nutshell, *Ayurveda* proved better in the management of the disease in comparison to modern aspect i.e., *DhatrayadiKwatha* and *ShadbinduTailaNasya* proved to be a good effective therapy in curing the disease.

• It can be concluded that there is satisfying scope of suggesting these *Ayurvedic*

management as safe and effective procedure for *Ardhavabhedaka*.

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