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Effect of Pathyashadangam Kashaya on the Ardhavabhedaka (Migraine)

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ABSTRACT

Migraine is a common disabling brain disorder. Headache accounts for 4.4% of all consultations in general practice. Migraine is one of the common causes of recurrent headache. Headache is most common illness that affect a person. A headache is considered primary when a disease or other medical condition does not cause it. According to IHS, Migraine constitutes 16% of the primary headache and affects 10-20% of the general population. In the present era, a boom in the Alternative and Complementary systems of medicine has led to deep introspection of their utility based on scientific validation. Hence it is the need of the hour to establish a firm clinical research based scientific data for classical treatments. An attempt has been made in the present clinical research to assess the effect of Pathyashadangamkashya on Migraine (*Ardhavabhedaka*). Total 30 patients were registered for Pathyashadangam kashya. Result of the study revealed that all the therapies effective in reducing the sign & symptoms as well as physical assessment.

Keywords: Pathyashadangam kashaya, Ardhavabhedaka/migraine

INTRODUCTION

Migraine affects over 20% of people at some point in their lives; epidemiological studies have shown that 4.5% of the population of Western Europe has headache on at least 15 days per month, [1] global studies suggest that approximately 1% of the world's population may have chronic migraine. In Ayurveda it can be correlated with Ardhavabhedaka described under Shiroroga (disease of the head in Ayurveda). It 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 (Vata – Pitta – Kapha), [2] according to 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]

In migraine many medications have been tried and a lot are still in research work also, but these modern drugs are not acceptable due to their drawbacks. All the medications, either the older one or the newly available one have a lot of side effects (GIT distress, etc). Also they cause drug

dependence, drug withdrawal syndrome, relapse of headache within hours and chances of getting chronic headache. Several drugs cannot be prescribed in Migraine associated with other medical illness, which is a high drawback in modern science. In contrast to that Ayurveda has a variety of natural medication in the treatment of various types of Shirah-roga. All Shiro-rogas are due to Tridosha prakopa and chiefly due to Vata or VataKapha. Thus, Ardhavabhedaka, a sadhya type of Shiro-roga can be best managed with Ausadhis having Ushna, Snigdha, etc Vatahara or Vata-Kaphahara properties.Ardhavabhedaka is best treated with Ghritam, Thailam and Majja, Shiro Virechana, 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. Only Ayurveda is such a system of medicine where the importance of both prevention and cure has been highlighted. As per Ayurvedic texts, diseases are deep seated at different Dhatu levels. For this clinical trial Pathyashadangam Kashaya from Sharangdhar Samhita was selected. Pathyashadangam kwath was prepared from seven ingredients,viz., Haritaki (Terminalia chebula Retz.), Bibhitaki (Terminalia bellirica (Gaertn.) Roxb.), Amalaki (Phyllanthus emblica L.), Bhunimba(Andrographis paniculata (Burm. f.) Wall. ex Nees), Haridra (Curcumalonga L.), Nimba (Azadirachta indica A. Juss.) and Guduchi (Tinosporacordifolia (Willd.) Miers.). The fruit pericarps of Haritaki, Bibhitakiand Amalaki, aerial parts of Bhunimba, rhizome of Haridra, stembark of Nimba and stem of Guduchi were employed for preparationof the formulation [5] This decotion has ingredients having Ushna Virya (hot potency) [6] and Vata Shamaka (Vata subsiding) property which can be beneficial in Ardhavabhedaka as this disease has dominancy of vitiation of Vata and Kapha Dosha.

AIMS AND OBJECTIVES

- To evaluate the clinical efficacy of Pathyashadangam kashya in the patient ofmigraine/ Ardhavabhedaka.
- To critically analyse the etiopathogenesis of Migraine (Ardhavabhedaka).

MATERIAL AND METHOD

30 Patients fulfilling the diagnostic criteria, attending OPD of Salakyathantra dept. Govt Ayurveda College Hospital Tripunithura and cases referred by other departments of hospital; were selected randomly irrespective of race, caste, sex, religion etc.

Inclusion Criteria:-

1) Patients with simple and classic Migraine with frequent attacks twice or thrice in a week.
2) Age group 15-60 yrs.
3) Sex-Both male and female.
4) Patients fit enough to do *Abhyangam*.

Exclusion Criteria

1) Migraine along with other causes of headache.
2) Systemic diseases which restrain the patients from applying *Thalam*.
3) Age group less than 15yrs and more than 60yrs.

Investigations

Following investigation were carried out before & after treatment.
CBC with Hb%, Liver function test, Blood sugar fasting and pp, Lipid profile, Urine routine.

Study Design

A clinical trial is establishing the study of 30 patients of Migraine (*Ardhavabhedaka*) satisfying the inclusion criteria were selected for the study.

Drug, dose and duration: *Pathyashadangamkashayam*

Dose-90ml (B D)
Time- 7am and 7pm
Duration of treatment- 15 days.
Diet recommendation: Patients were advised to follow *Pathyapathya* according to the disease and treatment.

Assessment of Therapy

Criteria for assessment

The patients were examined as per suitable scoring pattern and objective signs were recorded to assess any changes present in the patients. After completion of 15 days of *PathyashadangamKashaya*, the efficacy of the therapy was assessed on the basis of the following subjective criteria.

Follow up

Follow up study was done at 15 days, 30 days and 60 days after the treatment.

Subjective criteria

Signs and symptoms of Migraine (*Ardhavabhedaka*) which are subjective in nature were used for symptomatic evaluation for which a multidimensional scoring pattern was adopted. The patients were assessed by giving a score before and after the therapy according to the severity of the symptoms; also on follow up with 15 days, 30 days and 60 days, the assessment was done to evaluate recurrence of disease or after effects of *PathyashadangamKashaya.*

Table 1Grading of clinical features

Symptoms	Grade 0	Grade 1	Grade 2	Grade 3	Grade 4
1 SeverityofHeadache	**No headache.**	**Mild Headache, I am aware only if I pay attention to it.**	**Moderate Headache, I can ignore at times.**	**Severe Headache, I can 't ignore but I can do my usual activities**	**Excruciating Headache, I can 't do anything**
2 Nausea or vomiting	No symptoms	Mild (can do his/her work)	Moderate(Forced to stop work)	Severe (Forced to take rest)	Excruciating (Forced to take medicine)
3photophobia & phonophobia	No symptoms	Mild (can do his/her work)	Moderate(Forced to stop work)	Severe (Forced to take rest)	Excruciating (Forced to take medicine)
4 vertigo-	No symptoms	Mild (can do his/her work)	Moderate(Forced to stop work)	Severe (Forced to take rest)	Excruciating (Forced to take medicine)

All subjective parameters were analyzed during each follow up and were later scrutinized.

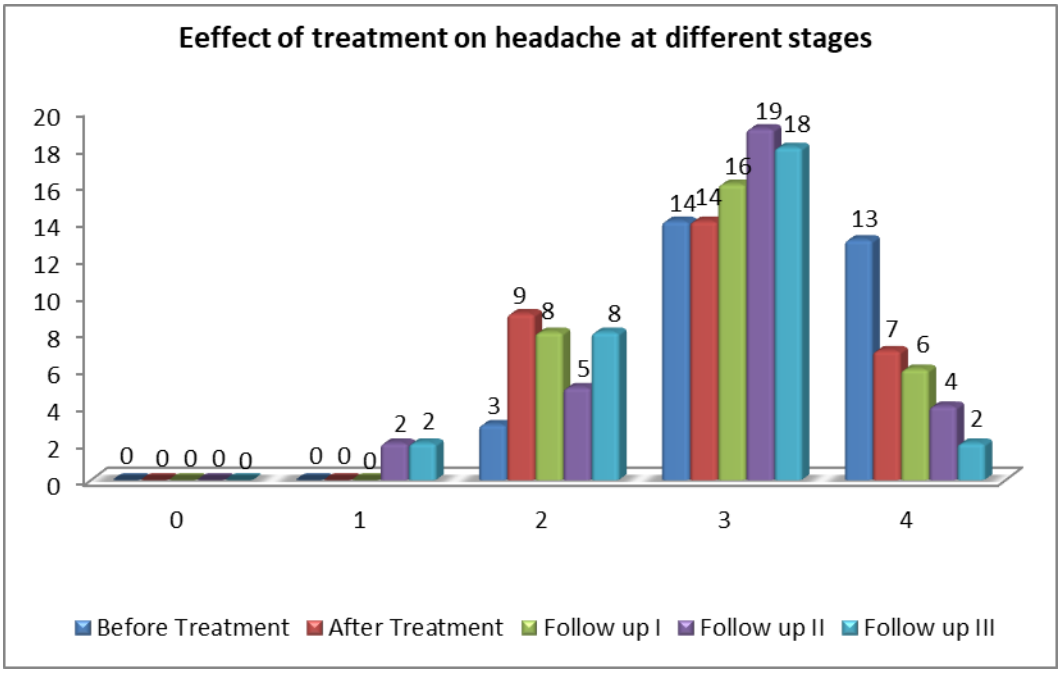
STATISTICAL ANALYSIS

The information gathered on the basis of above observation was subjected to statistical analysis. The Wilcoxon's Signed-Rank Test was carried out for all non-parametric data (i.e. for subjective criteria) to analyze the effect of individual therapy in the group. The obtained results were interpreted as.

Observation and results

When parameters of headache at different stages based on treatment was assessed, it was found that after PathyashadangamKashaya pana, the mean value 2.433, standard deviation 0.774, standard error 0.88, % improvement 10%, z value was 3.207 and p is highly significant at 0.001 level. After first follow up the mean value2.067, SD 0.521, SE 0.722, % improvement 10%, z value was 2.556 and p is highly significant at 0.001 level. After second follow upthe mean value1.767, SD 0.43, SE0.656, % improvement 12.5%, z value was 2.696 and p is highly significant at 0.001 level. After third follow upthe mean value1.967, SD 0.556, SE 0.746, % improvement 16.7%, z value was 3.386 and p is highly significant at 0.001 level. When the parameter nausea and vomiting was assessed, it was found that, the mean value1.4, standard deviation 0.77, standard error 0.878,% improvement 2.5%, z value was 1.732 and p is highly significant at 0.001 level. After first follow up the mean value1.567, SD 0.728, SE 0.853, % improvement 2.5%, z value was 0.832 and p is highly significant at 0.001 level. When the parameter photophobia and phonophobia was assessed, it was found that the mean value1.433,standard deviation 0.898,standard error 0.788,% improvement 18.3%, z value was 4.315

and p is highly significant at 0.001 level. After first follow up the mean value1.6, SD 0.621, SE 0.788, % improvement 13.3%, z value was 3.771 and p is highly significant at 0.001 level. When the parameter vertigo was assessed, it was found that the mean value1.033, standard deviation 0.669, standard error 0.818, % improvement 10.8%, z value was 3.606 and p is highly significant at 0.001 level. After first follow up the mean value1.133, SD 0.507, SE 0.712, % improvement 10.8%, z value was 3.153 and p is highly significant at 0.001 level. After second follow up the mean value1.033, SD 0.49, SE0.7, % improvement 15.8%, z value was 3.626 and p is highly significant at 0.001 level.



DISCUSSION

Ardhavabhedaka, a type of *Shirasoola*, described by all the *Acharyas* can be symptomatically correlated with Migraine due to its cardinal feature "half sided headache" which is also explained by commentator *Chakrapani* as "*ArdhaMastakaVedana*"[7]and also due to its paroxysmal nature. All the three *Doshas* are involved in the pathogenesis of the *Ardhavabhedaka* with the predominance of *Vatha* or *Vathakapha*. The disease may not be fatal but if not managed properly then it may affect eyesight or hearing. Based on critical studies it has been found that *Ardhavabhedaka*, as similar entity to migraine which is represented below-

Table 2.Characterstics of Ardhavabhedaka and Migraine

Characterstics	Ardhavabhedaka	Migraine
1. Location	*Ardhe tu moordhanah.....*	Unilateral or bilateral
2. Frequency	*Pakshad dashahad akasmad*	Intermittent
3.Duration		2-72 hrs
4.Pain	*Shirajal asphuranam, manthanvath,shastraarnee nibham*	Throbbing
5. Severity	*Tivram ativednam*	Moderate to severe
6.Associate symptoms	*Bhrama, hrillasam*	Nausea, Vomiting, Dizziness
7.Migranous accompaniments	*Naynam shrvanam vinashyet*	Visual and Auditory effects

Migraine is the commonest cause of recurrent, severe headache. It is experienced at some point by over 20% of women and over 10% men. There are three broad approaches to treating chronic migraine: lifestyle and trigger management, acute treatments (i.e. those taken during attacks or exacerbations of chronic pain), and preventive treatments (medication or other interventions designed to reduce the tendency to have attacks). While many patients find that lifestyle adjustments such as regularizing meals and sleep can reduce the frequency of their attacks, some form of medication or other treatment is almost invariably necessary in patients with chronic migraine. [8] According to Sharangdhar samhita Pathyashadangam Kwath is Vaso Dilator, Nervine Tonic, Tranquilizer. It is also indicated in Tremor, Convulsions, Wasting, Mental Disorders, Gynecological Diseases.

Mode of action of Pathyashadangam KWATH

Pathyashadangam kwath, a classical ayurvedic polyherbal formulation is used for the treatment of cluster head ache, migraine, upper respiratory diseases, ear ache and night blindness. Pathyashadangam kwath was prepared from seven ingredients, viz., Haritaki (Terminalia chebula Retz.), Bibhitaki (Terminalia bellirica (Gaertn.) Roxb.), Amalaki (Phyllanthus emblica L.), Bhunimba (Andrographis paniculata (Burm. f.) Wall. ex Nees), Haridra (Curcuma longa L.), Nimba (Azadirachta indica A. Juss.) and Guduchi (Tinospora cordifolia (Willd.) Miers.). The fruit pericarps of Haritaki, Bibhitaki and Amalaki, aerial parts of Bhunimba, rhizome of Haridra, stem bark of Nimba and stem of Guduchi were employed for preparation of the formulation. In phytochemical analysis presence of alkaloids, flavonoids, tannins, sterols, triterpenoids, saponins, glycosides and the marker compound andrographolide were found to be characteristic of the kwath. [9] Triphala kashaya was supposed to pacify vitiated vata-kapha Doshas. In some studies it was found that oral administration of Triphala appears to stimulate the neutrophil functions in the immunized rats and stress induced suppression in the neutrophil functions were significantly prevented by Triphala. [10] In animal study Bhunimbaethanolic extract has anti-hyperalgesic activity in an experimental animal model of sensory hypersensitivity associated with migraine. AP ethanolic extract seems to act through mechanisms that may be related to direct or indirect inhibition of pro-inflammatory responses in specific brain areas involved in migraine pain transmission. [11] In some studies Curcumin, administrated before pain stimuli. Pretreatment with Curcumin decreased the nociception in rats, The decrease in oxidative stress parameters and blood pressure was also obtained after Curcumin administration. It shows Curcumin as prophylaxis in migraine, [12] formation of drugs possessing *Raktaprasadaka* (blood purifier) property that may normalize vitiated *Rakta Dhatu* (oxygen carrying capacity of blood). Drugs such as *Guduchi (Tinospora cordifolia* (willd.) and *Amalaki (Embelica officinalis* Gaertn.) have *Dipana* (appetizing) property. These drugs will normalize *Ama* (by product toxins after digestion), as *Ama* get decreased it may subside *Ajirna* (Indigestion).

CONCLUSION

Pathyashadangam decoction is mentioned especially in the management of *Shiroroga*. This decoction has ingredients having *Ushna Virya* (hot potency) and *Vata Shamaka* (*Vata* subsiding) property which can be beneficial in *Ardhavabhedaka* as this disease has dominancy of vitiation of *Vata* and *Kapha Dosha*, dominancy. Clinical study shows that Pathyashadangam decoction therapy are effective in the management of *Ardhavabhedaka* (migraine).

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