

RESEARCH ARTICLE

EVALUATING THE EFFICACY OF BRIHAT DASHAMOOLA TAILA NASYA AND RASNA DASHAMOOLA KASHAYA WITH VARUNAADI KSHEERA GHRITA NASYA AND MUNDITAKA KASHAYA IN THE MANAGEMENT OF ARDHAVABHEDAKA VIS-A-VIS MIGRAINE

Dr. Mythrey R.C¹ and Dr. Kallesh Jakkali B.²

Professor and HOD, Dept of Post Graduate Studies in Kayachikitsa, Govt Ayurveda Medical College, Mysuru.
 Final Year MD Scholar, Dept of Post Graduate Studies in Kayachikitsa, Govt Ayurveda Medical College,

.....

Mysuru.

Manuscript Info

•••••

Manuscript History Received: 15 October 2023 Final Accepted: 18 November 2023 Published: December 2023

Key words:-

Nasya Karma, Brihat Dashamoola Taila, Rasna Dashamooladi Kashaya, Ardhavabhedaka, Migraine, Varunadi Ksheera Ghrita, Munditaka Kashaya

Abstract

..... Introduction: Ardhavabedhaka is a condition characterized by severe pain in half of the head, such as bheda, toda, bhrama, shula appearing in interval of either 15 or 10 days or spontaneously without any cause1. This disease shows close resemblance to migraine. Migraine is a neural condition characterized by severe recurrent headache usually on one side of the head often accompanied by nausea, vomiting and photophobia2. Migraine affects globally 12% of the population. In India 14.12%-25.2% population and it is a disease predominantly seen in females, with male to female ratio of 1.7:2.6 and among those from urban than rural areas 1.3:1.83. Currently, migraines are managed by usage of analgesics and triptans. Chronic usage of these drugs may cause renal and hepatotoxicity. Therefore, it is necessary to explore avurvedic approaches that can combat the disease. In Avurevda this disease is managed by usage of uttama matra of chatuhsneha, shirokaya virechana, nadi sweda, niruha basti, anuvasana basti and shamanaoushadi. As Nasya karma is the prime treatment modality for the management of urdhwa jatrugata vikaras, it is considered appropriate for management of Ardhavabedhaka4.

Materials and Methods: The study was conducted using Brihat dashamoola taila as nasya for 8 days and Rasna dashamooladi Kashaya as shamanoushadhi for 23 days post nasya in group 1 and Varunadi ksheera ghrita nasya for 8 days and Munditaka Kashaya as shamanoushadhi for 23 days post nasya in group 2. The assessments were done on the domains of intensity of pain, frequency of attacks and duration of pain, along with the Headache impact score, on the 0th, 8th and 31st days, before and after the treatment.

Result: It showed that there was significant decrease in intensity, frequency, duration of pain and Hit score, post nasya karma in both group 1 and 2, also the reduction in pain was significant in both group 1 and 2 post shamanoushadhi. With the overall treatment, it was seen that the reduction in Hit score was highly significant with a p value of 0.000. On comparing the results obtained in both groups, it was observed that group 1 had significant results compared to group 2.

Conclusion: Nasya karma works as a treatment of choice in Ardhavabhedaka, due to its ability to eliminate the accumulated doshas from the shiras. The present study showed that Brihat dashamoola taila nasya along with Rasna dashamoola kashaya gives better results in vatakapha pradhana Ardhavabhedaka, and Varunadi ksheera ghrita nasya along with Munditaka Kashaya works better in vatapitta pradhana Ardhavabhedaka.

Copy Right, IJAR, 2023,. All rights reserved.

Introduction:-

Ardhavabhedaka is a disease characterized by pain in the one half of the head, associated with toda, bhrama, bhedavat peeda1, it is also said to be appearing at the intervals of 10 or 15days or spontaneously without any cause. It is also characterized by Ati Vedana in manya, shankha, Akshi, bhru, lalata, karna, pain is similar to that of Arani. With these symptoms, the disease can be corelated to Migraine, which is characterized by severe recurrent headache, usually unilateral associated with nausea, vomiting and/or photophobia. Attacks can be as severe as to hamper the daily chores of an individual. Migraine globally affects 12% of the population. In India, 14.12 - 25.2% of the population is affected. It is a disease predominantly occurring in female, with a male to female ratio of 1.7 to 2.6, and with a ratio of 1.3: 1.8 for urban and rural population. Treatment of migraine includes use of Non-steroidal antiinflammatory drugs as the main choice, with trail evidences on its efficacy. Ibuprofen, Naproxen sodium, Acetylsalicylic acid, diclofenac are few of the NSAIDs. Also, Triptans, Antiemetics, Ergotamines are used in its treatment. Though these medications provide relief from the symptoms, its use on a long run lead to adverse effects like dyspepsia, diarrhea, bruising, pruritis, pressure sensations of chest, limb heaviness, renal failure, hepatic impairment, and cardiovascular events2. Hence, alternative therapies with minimal adverse effects play an important role in treating the disease. Ayurveda classics, consider Ardhavabhedaka as a urdhwajatrugata vikara and its treatment protocol includes Shirovirechana, Snehana using Uttama matra of chatuhsneha, Swedana, Niruha and Anuvasana basti, and Shamanoushadhi. Hence the present study was designed with Nasya and Shamanoushadhi as the choice of treatment in Ardhavabhedaka, considering Nasya as the prime chikitsa for eliminating the doshas from the Shiras in the form of Shirovirechana, followed by Shamanoushadhi.

Objective:-

To compare the efficacy of Brihat Dashamoola taila nasya and Rasna dashamoola Kashaya with Varunadi ksheera ghritha nasya and Munditaka Kashaya in Ardhavabedhaka vis-à-vis Migraine

Materials & Methods:-

Literary Source:

A thorough literature review was done on the disease Ardhavabhedaka in Ayurveda and Migrain in contemporary science to understand its etiology, pathology, treatment, prognosis, etc using classical texts, reputer and peer-reviewed online journals of PubMed, Scopus, Google Scholar, etc., Study was planned choosing appropriate medicines.

Research Design:

Double arm open labelled comparative clinical trial with pre and post test design.

Sample Source:

Subjects visiting Government Ayurveda Medical College & Hospital, Mysuru and Government Hitech Panchakarma Ayurveda Hospital, Mysuru and special medical camps who were fulfilling the diagnostic criteria were selected as study samples.

Simple Random Sampling was used to categorize subjects into two different groups.

Grouping:

Group A consists of 30 subjects

Intervention:

Nasya with Brihat Dashamoola Taila 3.6ml in each nostril for 7 days followed by 48ml of Rasna Dashamoola Kashaya in two equally divided doses with equal quantity of water

Duration of intervention-

7 Days of Nasya+23 Days of Shamanaushadi

Group B consists of 30 subjects

Intervention:

Group 1:

• Mukha Abhyanga was done with Yashtimadhu taila, followed by bashpa sweda.

• Nasya procedure was conducted by instilling to both nostrils, 3.6ml of Bruhat Dashamoola Taila for 7 days.

• From the 8th day, till 30th day, the subject was instructed to take 48ml of Rasna dashamula Kashaya divided into two equal doses mixed with equal quantities of water daily, before food.

Group 2:

Mukha Abhyanga was done with Yashtimadhu taila, followed by bashpa sweda.
Nasya procedure was conducted by instilling to both nostrils, 3.6ml of Varunadi

Ksheera Ghrita for 7 days.

• From the 8th day, till 30th day, the subject was instructed to take 48ml of Munditaka Kashaya is divided into two equal doses mixed with an equal quantity of water daily, before food.

Duration of intervention-

7 Days of Nasya+23 Days of Shamanaushadhi

Source of Drugs:

All the medicines are procured from Hindustan Pharmacy.

Inclusion Criteria

- Subjects between the age group of 18-60 years were taken irrespective of gender.
- Subjects having pratyatma lakshana of Ardhavabedhaka i,e. bheda, toda, bhrama, shirashula were included.
- Subjects with classical signs and symptoms of migraine were included.

• Both fresh and treated cases presenting with the symptoms of Ardhavabedhaka vis-à-vis migraine were selected. (Fresh cases includes freshly detected and untreated cases of Ardhavabedhaka vis-a-vis migraine and Treated cases includes already diagnosed as Ardhavabedhaka vis-à-vis migraine), who were on medication and had a flush out period of 7days.

Exclusion criteria

• Subjects who are unfit for Nasya procedure were excluded. • Pregnant and lactating women were excluded.

• Subjects having history of 1 attack per month.

• Subjects with uncontrolled Diabetes mellitus (RBS>250mg/dl) and Hypertension (blood pressure>150/100mm of hg) were excluded.

• Subjects with other systemic disorders which will interfere with the intervention were excluded.

Diagnostic Criteria

The diagnosis was made based on the criteria of migraine provided by International Headache Society (IHS).

- 1. At least 5 attacks in history.
- 2. Headache attacks lasting 4-72 hours.
- 3. Headache has at least 2 of the following
- (a) Unilateral location.

- (b) Pulsating quality.
- (c) Moderate or severe pain intensity.
- (d) Aggravation by routine physical activity (e.g., walking or climbing stairs).
- 4. During headache at least one of the following symptoms will be present.
- Nausea and/or vomiting 5. Not attributed to other diseases.
- Photophobia and phonophobia

Assessment Criteria

1. Based on clinical grading of symptoms:

1] Intensity of pain

- 9-10 = worst possible pain I4
- 1-3 = mild I1
- 0 = no pain I0
- 2] Duration of pain
- 49-72 hours D4
- 25-48 hours D3
- 13-24 hours D2
- 4-12 hours D1
- No pain D0

3] Frequency of attack

- 13 or &>13 attacks per month F4
- 9-12 attacks per month F3
- 5-8 attacks per month F2
- 1-4 attacks per month F1
- No attacks F0

Associated symptoms

- a) Heaviness Present (1)/ Absent (0)
- b)Nausea Present (1)/ Absent (0)
- c) Vomiting Present (1)/ Absent (0)
- d) Photophobia Present (1)/ Absent (0)
- e) Phonophobia -Present (1)/ Absent (0) f) Vertigo Present (1)/ Absent (0)
- g) Tinnitus -Present (1)/ Absent (0)
- h) Aura -Present (1)/ Absent (0)
- 2. Headache Impact Score (HIT SCORE)
- Class 1-Little-to-no impact : 36-49 score
- Class 2-Moderate impact : 50-55 score
- Class 3-Substantial impact : 56-59score
- Class 4-Severe impact : 60-78score

Assessment Schedule:

- 1st assessment 0th day
- 2nd assessment 9th day (After the completion of Nasya procedure)
- 3rd assessment 31st day (After the completion of intervention)

Statistical Methods:-

The results were analyzed statistically by using descriptive statistics, paired t test, ANOVA test using service product for statistical solution (SPSS) for windows.

Results:-

All the data were collected and analyzed using SPSS software.

Parametric tests were used for scale data -All the results were analyzed statistically for

'p'value using paired t test.

ANOVA was used to analyze the results within the group.

Non-Parametric tests were used for ordinal and nominal data.

Wilcoxon signed rank test was done for analyzing the significance of parameters within the groups.

The obtained results were interpreted in the statistical terms as, Non-significant: p > 0.05Significant (S): P < 0.05Highly Significant (HS): P < 0.001

In the study, action of the treatment was studied on the below parameters,

In Group 1

Intensity of pain -

Showed clinically significant and statistically insignificant results in reduction of intensity of pain, after Nasya karma with a p value of 0.083, but after Shamanoushadhi and on overall treatment the results obtained were statistically significant with a p value of 0.013 and 0.003 respectively.

Frequency of the attack -

After the Nasya treatment it showed that the results were statistically insignificant with p value of 0.102, but post Shamanoushadhi and on overall treatment the results obtained were statistically significant with a p value of 0.006 and 0.021 respectively.

Severity of attacks -

After Nasya karma the results obtained were statistically highly significant with a p value of 0.000, on follow up with shamanoushadhi, the results obtained were statistically significant with a p value of 0.001, overall, on treatment there was statistically highly significant reduction in the severity of attacks, with a p value of 0.000.

Hit score -

There was statistically highly significant data obtained, with a p value of 0.000, in reduction of hit score during Nasya karma, Shamanoushadhi and on overall treatment.

In Group 2,

Intensity of pain -

Showed statistically significant results in reduction of intensity of pain, after Nasya karma with a p value of 0.014, after Shamanoushadhi and on overall treatment the results obtained were statistically significant with a p value of 0.046 and 0.004 respectively.

Frequency of the attack -

After the Nasya treatment it showed that the results were statistically significant with p value of 0.008, after Shamanoushadhi and on overall

treatment the results obtained were statistically significant with a p value of 0.046 and 0.002 respectively.

Severity of attacks -

After Nasya karma the results obtained were statistically highly significant with a p value of 0.000, on follow up with Shamanoushadhi, the results obtained were statistically insignificant with a p value of 0.132, on overall treatment there was statistically highly significant reduction in the severity of attacks, with a p value of 0.000.

Hit score -

There was statistically highly significant data obtained, with a p value of 0.000, in reduction of hit score during Nasya karma, after follow up with Shamanoushadhi, the changes on hit score were statistically significant with a p value of 0.005 and on overall treatment the changes were statistically highly significant with a p value of 0.000, stating that Nasya karma and Shamanoushadhi had an impact on reduction of Hit score.

On comparison of the results obtained between the groups it can be inferred that there was consistent decrease in the hit score in both group 1 and group 2, post Nasya and Shamanoushadhi.

Overall results statistically infer that the changes between the groups are significant with a p value of 0.020, which infers that the results obtained were highly significant in one of the groups. Considering the difference between the mean scores obtained, it can be concluded that Group 1 had significant results compared to that of Group 2, in reducing the intensity, frequency of attacks and duration of pain in Ardhavabhedaka.

Discussion:-

Brihat Dashamoola Taila

It contains brihat panchamoola which is vata kaphahara in nature and laghu panchamoola which is vata pittahara. Hence it acts as tridoshahara.

Most of the drugs present in the above yoga have katu, tikta rasa, ushna veerya, laghu guna and katu vipaka, dipaka, and pachaka karma, which are beneficial in reducing the kapha (causes vilayana) and vata dosha and does ama pachana. As these dravyas are processed with taila as the media, it acts as vatahara due to the snigdha guna.

Also, the presence of dravyas like sarshapa, maricha, pippali, makes it srotoshodaka and urdhwabhagahara aushadhi, hence when given in the form of Nasya it acts as a shirovirechaka, by eliminating all the doshas from the shiras, and in turn reduces the sanchaya of kapha in the shiras.

Rasna Dashamooladi Kwatha

Ingredients present in this Kashaya have both vatakapha and vatapittahara properties, hence acts as tridoshahara. It also has predominantly katu, kashaya, tikta rasa, laghu, tikshna guna, ushna virya, katu, Madhura vipaka, which have ama pachana, kapha vilayana and vatakapha prashamana karma, hence was selected for study.

Varunadi Ksheera Ghrita

This formulation consists of drugs from varunadi gana quoted in 38th chapter of Sushruta Samhita Uttaratantra, which acts as kapha medohara, and as ghritapaka was done by adding ksheera it acts as pittavatahara dravya. Other dravyas present in this yoga are predominantly of Madhura, Katu, Tikta, Kashaya rasa, Laghu, Ruksha guna, Ushna virya, Katu vipaka and Dipaka, Pachaka karmas, which help in vilayana of the sanchita kapha dosha, acts as vatakaphahara and hence reduces the lakshanas of Ardhavabhedaka.

Munditaka Kashaya

This Kashaya contains, munditaka and maricha which have tikta, katu rasa, laghu guna, ushna virya and katu vipaka which acts as ama pachaka, agnidipaka and acts as kaphahara. Hence it plays an important role in samprapti vighatana of ardhavabhedaka.

Probable Mode Of Action Of Nasya Karma

The probable mode of action of Nasya karma can be understood with its procedural effect.

Procedural effect:

As "nasahi shirasho dwaram", means nasa is the gateway of shiras, the drug administered through the nose in the form of Nasya reaches the shiras and pacifies dosha which is responsible for producing the disease.

The procedure includes local massage and fomentation, which increases the blood circulation by vasodilation, which enhances the drug absorption.

Keeping the head in lowered position and retention of medicine in naso-pharynx, helps in providing enough time for local drug absorption.

It is claimed that the concentration of drug in cerebro spinal fluid is very high when administered through nasal route than that of intravenous administration. So, it can be concluded that there is faster absorption of medicine through nasal route.

Effect on neuro-vascular junction

As the efferent vasodilator nerves are spread out on the superficial surface of the face which after stimulation at surface of the face, by fomentation may increase blood flow to the brain, i.e., momentary hyperemia forcing transfusion of fluids into the brain tissue. Hence, the impact on central neuro-vascular system is likely to enable drug absorption in the brain tissue.

Effect on neuro- psychological level.

The trigeminal nerves which run along the olfactory pathway relate to limbic system of brain including hypothalamus. As limbic system is also connected with the aspects of behavior, drugs administered through nose may have an impact on immediate psychological functions by acting on limbic system through olfactory nerves.

Conclusion:-

In this study, Nasya karma was selected along with Shamanoushadhi, to study its efficacy in the treatment of Ardhavabhedaka.

Clinically it was observed that there was a significant decrease in the subjective symptoms in group 1, post Nasya karma, than in group 2.

Rasna dashamoola kashaya gave a positive result when compared to Munditaka Kashaya.

Brihat dashamoola taila and Rasna dashamoola Kashaya being the best vata kaphahara reduces the intensity of pain, frequency and duration of pain when used in combination, especially when it is a vatakapha pradhana vyadhi. Whereas Varunadi Ksheera Ghrita and Munditaka Kashaya being mostly vata pittahara in nature, when combined, acts better on pitta pradhana ardhavabhedaka, rather than on vatakaphapradhana vyadhi.

Limitation of this study is the small sample size, Pittapradhana Lakshanas were seen in Varunadhi Ksheera Ghrita Nasya. Future studies must be planned with larger sample size and using different Yogas for Nasya.

Acknowledgement:-

Nil.