EFFICACY OF BHRUNGRAJADI NASYA IN MANAGEMENT OF ARDHAVBHEDAK (MIGRAINE)

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ABSTRACT

Background: Ardhavbhedaka can be clinically correlated with the Migraine; which is commonly occurring vascular headache. It presents cardinal symptom of pain on one half of the head. Factors which trigger the disease include weather, missing a meal, stress, alcohol and certain types of food items. About 50% of women reported menstrual periods as a significant trigger. Additionally, allergic reactions, exposure to loud noises or certain odors, smoking, or long exposures to computer screens/televisions could lead to Migraine attacks. Objective: Clinical evaluation of Bhrungrajadi-nasya in Ardhavbhedak w.s.r. Migraine. Methods: A clinical study was conducted on 30 patients irrespective of sex in the age group of 18 to 60 yrs. All the patients presented with classical features of Ardhavbhedak. The present study also includes a causation of the disease and clinical conditions considered for differential diagnosis of ardhavbhedak found in classical texts. AvapeedakNasya was administered with Bhrungarajswaras by adding equal amount of AjaDugdha (Goat milk) for 7 days. Appropriate diet was advised to all the patients. Follow up was planned every 15 days till 1 month to assess if there is any recurrence of symptoms. Results: Highly significant results were observed and improvement in cardinal symptoms of Ardhavbhedak was observed. Conclusion: This procedure appears to provide good clinical improvement in patients with Ardhavbhedak.

Keywords: AjaDugdha, Ardhavbhedak, AvapeedakNasya, Bhrungarajswaras, Migraine

INTRODUCTION

Migraine is the most common neuromuscular disease; factors which trigger the disease include weather (up to 50%), missing a meal (40%), stress (50%), alcohol (50%) and certain types of food items (45%). About 50% of women reported menstrual periods as a signif-
significant trigger. Additionally, allergic reactions, exposure to loud noises or certain odors, smoking, or long exposure to computer screen/televisions could lead to migraine attacks.

WHO ranks migraine among the world’s most disabled medical illness\(^1\). Migraine can be closely related to *ardhavbhedak* due to its cardinal feature ‘half sided headache’ which is also explained by commentator Chakrapani as *Ardhamastakvedna* and also its paroxysmal nature\(^2\).

*Ardhavbhedak* has been explained as *tridoshaj* by Acharya Sushrut\(^3\), *Vata-kaphaj* by Charak and *Vataj* by acharya Vagbhat. The modern drugs are not acceptable due to their drawbacks, drug dependence, and drug withdrawal syndrome, relapse of headache within hours and chances of getting chronic headache.

In Ayurveda *Nasya* Therapy is considered as one of the most promising treatment for all the *urdhwajatrugata vikaras*. Hence *Bhrungarajadinasya* has been selected from *Yogaratnakar ShirorogaAdhikar*\(^4\).

### Incidence and Prevalence:
Recent studies estimate the prevalence of migraine at about 6-8% in men and 12-15% in women, in terms of actual numbers 3000 migraine attacks occur every day for each million of general population\(^5\).

### Aims and Objectives
To assess the efficacy of *Bhrungarajadinasya* in the management of *ardhavbhedak*

### Inclusion criteria
- Patients between age group 16-60 years
- Having recurrent attacks of headache (mostly unilateral, variable in intensity)

With or without nausea, vomiting aura and GI tract symptoms

### Exclusion criteria
- Patients suffering from sinusitis, hypertension, and fever
- Secondary headache caused by meningitis, tumor, encephalitis, cervical spondylosis, and refractive errors
- Individuals suffering from immunocompromised disease or on immunosuppressive drugs.
- Pregnancy and lactation

### Subjective criteria

**Table 1: Symptoms with grades**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Grade 0</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of headache</td>
<td>No headache</td>
<td>Mild headache, patient is aware only if he/she pays attention to it</td>
<td>Moderate, but does not disturb the routine work</td>
<td>Severe headache can’t ignore but he/she can do usual activities</td>
<td>Excruciating headache can’t do anything</td>
</tr>
<tr>
<td>Frequency of Headache</td>
<td>Nil</td>
<td>&gt;20 days</td>
<td>15 days</td>
<td>10 days</td>
<td>&lt;5 days</td>
</tr>
<tr>
<td>Duration of headache</td>
<td>Nil</td>
<td>1-3 hours /day</td>
<td>3-6 hours /day</td>
<td>6-12 hours/day</td>
<td>More than 12 hours /day</td>
</tr>
<tr>
<td>Nausea</td>
<td>Nil</td>
<td>occasionally</td>
<td>Moderate headache, can ignore at times</td>
<td>Severe, disturbing routine work</td>
<td>Severe enough, small amount of fluid regur-</td>
</tr>
</tbody>
</table>
Material and Methods
Sample size -30
Study duration – Follow up every 15 days till 1 month
Study center- YMT Ayurvedic medical college Kharghar
Type of study- open non comparative study
Source of data- OPD & IPD of study institute
Drug Formulation 5:-
Bhrungarajarasahachagaksheeratulyaarakiptah/
Suryavartamnihantiashunasyaen eve prayograta/
Yo. Ra (Shiroroga chikitsa/ suryavarta – ardhavbhedak chi 2 )
Eshevavidhikaryahakrutso cha ardhavbhedak/
Yo.Ra. (Shiroroga chikitsa/ suryavarta – ardhavbhedak chi 5)
Preparation of drug:
Equal quantity of Bhrungarajaswaras and ajadugdha was taken and kept under sunlight and then brought down to room temperature followed by nasya.
Methodology:-
Purva karma – Sthaniksnehanswedan
Pradhan karma – 4-8 drops of bhrungaraja + Ajadugdha in each nostril for 7 days

<table>
<thead>
<tr>
<th>Vomiting</th>
<th>Nil</th>
<th>Only if headache does not subside</th>
<th>Vomiting 1-2 times</th>
<th>Vomiting 2-3 times</th>
<th>gitating from mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertigo</td>
<td>Nil</td>
<td>Feeling of giddiness</td>
<td>Patient feels as if everything is revolving</td>
<td>Revolving signs + black outs</td>
<td>Unconscious</td>
</tr>
<tr>
<td>Aura</td>
<td>Nil</td>
<td>Last for 5 mins</td>
<td>Last for 15 mins</td>
<td>Last for 30 mins</td>
<td>Last for 60 mins</td>
</tr>
</tbody>
</table>

Observation & Result:-
It was observed that out of 30 patients 21 patients (70 %) were female &9 patients (30%) were male.
The maximum number of patients 22(73.33 %)were in age group of 31 to 40 years & 5 (16.66 %) patients were in age group of 21-30 years and 3 (10%) patients were in age group of 41-50.
Majority of patient about 19(63.34 %) belongs to >6 months chronicity & 11(36.66%) patients belongs to 3- 6 months chronicity.
Around 90% patients were Non- vegetarian 38% patients had family history of headache. 57% patients were totally dependent on allopathic medicine.
It was found that exertion, lack of sleep, hunger (missing meals) and stress were the most important factor for aggravating migraine.
Maximum patients those who were enrolled had migraine attack once a week.
Maximum migraineurs complained of nausea, photophobia, phonophobia and vomiting as associated symptoms.
### Table 2: Observation on results of complains

<table>
<thead>
<tr>
<th>Severity of headache</th>
<th>G0</th>
<th>G1</th>
<th>G2</th>
<th>G3</th>
<th>G4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Treatment</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>20</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>20</td>
<td>8</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Frequency of Headache</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>-</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>8</td>
<td>15</td>
<td>7</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>20</td>
<td>7</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Duration of headache</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>17</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>6</td>
<td>12</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>19</td>
<td>11</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Nausea</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>20</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>6</td>
<td>12</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>19</td>
<td>11</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Vomiting</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>16</td>
<td>11</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>20</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Vertigo</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>8</td>
<td>12</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>22</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Aura</td>
<td>G0</td>
<td>G1</td>
<td>G2</td>
<td>G3</td>
<td>G4</td>
<td>Total</td>
</tr>
<tr>
<td>Before Treatment</td>
<td>-</td>
<td>5</td>
<td>20</td>
<td>5</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>During Treatment</td>
<td>2</td>
<td>20</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>After Treatment</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>30</td>
</tr>
</tbody>
</table>

1. **Severity of headache**
   
   After the treatment, at the end of study 20 patients were completely relieved of the symptom i.e. grade 0, while 8 were in grade 1, 2 in grade 2.

   After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)

2. **Frequency of Headache**
   
   After the treatment, at the end of study 20 patients were completely relieved of the symptom i.e. grade 0, while 7 were in grade 1, 3 in grade 2.

   After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)

3. **Nausea**
   
   After the treatment, at the end of study 19 patients were completely relieved of the symptom i.e. grade 0, while 11 were in grade 1.

   After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)
4. Vomiting-
After the treatment, at the end of study 20 patients were completely relieved of the symptom i.e. grade 0, while 10 were in grade 1 vomiting.
After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)

5. Vertigo
After the treatment, at the end of study 22 patients were completely relieved of the symptom i.e. grade 0, while 8 were in grade 1 vertigo.
After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)

6. Aura
After the treatment, at the end of study 15 patients were completely relieved of the symptom i.e. grade 0, while 10 were in grade 1 aura, and 5 in grade 2 aura.
After applying Wilcoxon Signed rank test shows significant result as compare to 1st visit with (p= <0.001)

Overall assessment of therapy:
Markedly Improved: - 54% patients got markedly improvement in overall symptoms
Moderate Improvement: - 38% patients got moderately improvement in overall symptoms
Mild Improvement: - 7% patients got mild improvement in overall symptoms

DISCUSSION
Missing meals, hectic life style, lack of sleep are the causative factors for migraine
Samprapti bhang:-Bhrungrajadinasya is capable of breaking the Samprapti of ardhavbhedak with its action of katu, tikta rasa and laghu, ruksha guna which helps in removing kapha avarodha and leads to vata shaman and relives pain.⁶⁷

Kesharajobhrungarajhasuryavartoathamarkvaha |
Markavahakutukastiktorukshoakshishi-raroarthruta ||
Kaphavataharodantyastvachyahakeshyo Ra-sayana |
Hantikasakrumishwaskushopashophampandu-taha ||Kai Ni Aousadhivarga 1574-1575

Nasya karma –
Nasya karma is special procedure where the drug administered in nasa, the medicine is put into nostril moves in the channels up to the shringataka spreads to whole of the interior of the head and to the junction place where all the channels related to eyes, ears throat situated together thus shows influence on shiras by removing out the accumulated doshas localized in shiras i.e from all sinuses in the skull the action known as Shirovirechan
The olfactory nerves entering olfactory mucosa of nose carry the sheaths dura, arachnoid and pia with them. They directly enter into the brain. Olfactory striae are extensively connected to the limbic system. Stimulation can nourishment of nerve ending through nasya alters the pathology of migraine. Ajadugdha on the other hand helps in agni-deepan and is tridosh shamak
Thus it can be said that this formulation lowers headache and all the associated symptoms.

CONCLUSION
Ardhavbedak is vaat kapha pradhana shiro roga, the symptoms complex of which very well correlate to that of Migraine.
Most of the *nidanas* mentioned in our classics go in similarly with migraine triggers, which has active part in diagnosis and in planning the first line of treatment “Nidanparivarjan”

The study was clinical study in which consists 30 patients after treatment 54% patients got markedly improvement in symptoms; the study has shown highly significant results in the management of *ardhavbhedak*.

REFERENCES


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Conflict Of Interest: None Declared