**ABSTRACT**

**Introduction:** Migraine is one of the common causes of recurrent headache. According to IHS, Migraine constitutes 16% of the primary headache and affects 10-20% of the general population. The diagnosis is mainly based on clinical history. Moreover, unilateral headache with paroxysmal nature is the only symptom mentioned for the disease Ardhavabhedaka by ancient scientists. Ardhavabhedaka has been explained as Tridoshaja by Acharya Sushruta, Vata-Kaphaja by Charaka and Vataja by Vagbhatta. But the different quality of pain such as Toda, Bheda, etc. describes the Vishama nature of Vata dosha. **Aim and Objects:** To Evaluate ‘Mig-17’ Nasal Drops in the management of Ardhavabhedaka w.s.r to Migraine. **Material and Methods:** Total 65 patients with Classical as well as modern signs and symptoms of Ardhavabhedaka w.s.r to Migraine were selected randomly for the study from Ayulink Ayurveda Hospital, Ahmedabad. All patients are treated with ‘Mig-17’ Nasal drops. Assessment was done based on objective and subjective criterions.

**Keywords:** Migraine, Nasya, Mig 17, Shirahshool, Nasal Drop

**INTRODUCTION**

According to IHS, Migraine is the most common neurovascular headache, which constitutes 16% of the primary headache and affects 10-20% of the general population. Hence WHO ranks Migraine among the World’s most disabling medical illness. Ardhavabhedaka can be scientifically correlated with Migraine due to its cardinal feature 'half sided headache' which is also explained by commentator Chakrapani as Artha Mastaka Vedana and also due to its paroxysmal nature. Ardhavabheda has been explained as Tridoshaja by Acharya Sushruta, Vata-Kaphaja by Charaka and Vataja by Vagbhatta. The various types of pain explained by different Acharyas suggest the Vishama nature of Vata Dosha. Moreover, the symptoms nausea, vomiting and giddiness are also seen, which shows the involvement of Pitta Dosha, which can be explained as under:

- Vomiting & burning sensation symptoms are seen when Prana Vayu combines with Pitta.
- Udana Vayu with Pitta results in murchha, daha, bhrama and klama.
- The symptom Bhrama is due to Rajoguna and Pitta-Vata dosha involvement.

The modern drugs are not widely acceptable due to their drawbacks - drug dependence, drug withdrawal syndrome, relapse of headache within hours and chances of getting chronic headache. In Ayurveda,
Nasya Therapy or Nasal administration of medicine is considered as master key for all Urdhavajatragata Vikaras.

AIM AND OBJECTIVE:
To Evaluate ‘Mig-17’ Nasal Drops in the managemen of Ardhavabhedaka w.s.r to Migraine

MATERIALS AND METHODS:
1. Conceptual study:- All textual quotation & available commentaries along with their modern parallels were referred for this part.
2. Clinical Study:- Detailed history & physical examination of the each Patient was done and were recorded in the Performa.

Methodology:
Purva karma (Pre operative process) –
- To Prepare treatment trolley and table
- To Check emergency box and refill if required
- Signing the Consent form by the patient
- Patient was asked to lie down on the bed in the supine position
- Blood pressure and Pulse were measured and noted in treatment record form
- Nasal bottle was shake well before use
- Purvakarma like Mukhabhyanga or Sthanik Swedana is not needed.

Pradhana karma (Main procedure)
- Without tilting the patient’s head much, Put 1 or 2 drops of the medicine in each nostril
- Gently massage on the nose
- Patient was kept lying for 5 minutes

Paschata karma (Postoperative process)
- Patient was observed for 30 minutes
- Check & note patient’s pulse and B.P.
- All data of pre and post treatment, viz B.P.

CRITERIA FOR SELECTION OF THE PATIENT:
1. A special Performa for the present study was prepared in which detail history and physical examination on the basis of principles of Ayurveda & modern science.
2. Patients were selected from the O.P.D. of AYULINK AYURVEDA HOSPITAL, AHMEDABAD.

Inclusion Criteria:
1. Patients presented with the classical as well as Modern signs and symptoms of Ardhavabhedaka (Migraine).
2. Patients of either sex aged between 8 – 70 years were included.
3. Patients who are fit for Nasya Karma according to Ayurveda text books.

Exclusion Criteria:
- Patient who are not fit for Nasya Karma according to Ayurveda text books
- Fever
- Secondary Headache
- Pregnancy
- High blood pressure
- Low blood pressure
- During menses
- Child below 8 years
- Any Critical Condition of patient

PLAN OF STUDY:
The research study was designed of Single therapeutic group. Total 65 patients were registered. The selected patients who fulfilled the inclusive criteria were treated with ‘Mig-17’ Nasal Drops.
**Table 1.1: Plan of Study**

<table>
<thead>
<tr>
<th>Group</th>
<th>No. Of Patient</th>
<th>Drug</th>
<th>Dose</th>
<th>Duration</th>
<th>Follow-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>65</td>
<td>‘Mig-17’ Nasal Drop</td>
<td>1 drop in each nostril</td>
<td>2 times in a week, Maximum 8 times (4 week)</td>
<td>Every 3 Months for 1 year.</td>
</tr>
</tbody>
</table>

**Duration:** The Gap between two treatments should be 3 days. (E.g. Monday – Thursday, Tuesday – Friday or Wednesday – Saturday). This nasal drop process should be performed any time between 9 am to 6 pm.

**Drug (‘Mig-17’ Nasal Drops) Formulation:**

Each 10 ml drops contains-

**Table 1.2: Contents of the Drug**

<table>
<thead>
<tr>
<th>Contents</th>
<th>Latin Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amalaki Churna</td>
<td>Emblica officinalis</td>
<td>5 gm</td>
</tr>
<tr>
<td>Sunthi Churna</td>
<td>Zingiber officinalis</td>
<td>3 gm</td>
</tr>
<tr>
<td>Aritha Churna</td>
<td>Sapindus mukorossi</td>
<td>1 gm</td>
</tr>
<tr>
<td>Yastimadhu Churna</td>
<td>Glycyrrhiza glabra</td>
<td>1 gm</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>Q.S.</td>
</tr>
<tr>
<td>Preservative- Sodium Benzoate</td>
<td></td>
<td>Q.S.</td>
</tr>
</tbody>
</table>

**CRITERIA FOR ASSESSMENT:**

2. On the basis of standard scale like pain score and improvement in quality of life.
3. Assessment of the therapy has been done by preparing clinical Performa.

**Table 1.3: Criteria For Assessment Of The Clinical Symptoms Depending On The Severity**

<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>Duration of Headache</td>
<td>Nil</td>
<td>1-3 hrs./day</td>
<td>3-6 hrs./day</td>
<td>6-12 hrs./day</td>
<td>&gt;12 hrs./day</td>
</tr>
<tr>
<td>Frequency of Headache</td>
<td>Nil</td>
<td>&gt;30 days</td>
<td>15-30 days</td>
<td>2-15 days</td>
<td>Everyday</td>
</tr>
<tr>
<td>Aura</td>
<td>Nil</td>
<td>Lasts for 5 minutes</td>
<td>Lasts for 15 minutes</td>
<td>Lasts for 30 minutes</td>
<td>Lasts for 60 minutes</td>
</tr>
<tr>
<td>Nausea</td>
<td>Nil</td>
<td>Occasionally</td>
<td>Moderate nausea but does not disturb the routine work</td>
<td>Severe nausea, disturbing routine work</td>
<td>Severe enough, small amount of fluid regurgitating from mouth</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Nil</td>
<td>Only if headache dose not subside</td>
<td>Vomiting 1-2 times</td>
<td>Vomiting 2-3 times</td>
<td>Forced to take medicine to stop vomiting</td>
</tr>
<tr>
<td>Photophobia</td>
<td>Nil</td>
<td>Very mild</td>
<td>Photophobia on</td>
<td>Photophobia on</td>
<td>Severe Photophobia</td>
</tr>
</tbody>
</table>
Table 1.4: Overall Assessment of Therapy

<table>
<thead>
<tr>
<th>100% Relief</th>
<th>75 - 99% Relief</th>
<th>50 - 74% Relief</th>
<th>25 - 49% Relief</th>
<th>0 - 24% Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Relief</td>
<td>Complete remission</td>
<td>Marked improvement</td>
<td>Moderate improvement</td>
<td>Mild improvement</td>
</tr>
<tr>
<td>75 - 99% Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 - 74% Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 - 49% Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 24% Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.5: Showing Effect of Therapy in Subjective Parameters (n=59)

| Symptoms                    | Mean BT | Mean AT | Mean Difference | % Relief  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity of Headache</td>
<td>3.24</td>
<td>0.34</td>
<td>2.9</td>
<td>89.51%</td>
</tr>
<tr>
<td>Total Duration of Headache</td>
<td>3.19</td>
<td>0.41</td>
<td>2.78</td>
<td>87.14%</td>
</tr>
<tr>
<td>Frequency of Headache</td>
<td>3.27</td>
<td>0.46</td>
<td>2.81</td>
<td>85.93%</td>
</tr>
<tr>
<td>Aura</td>
<td>3.19</td>
<td>0.47</td>
<td>2.72</td>
<td>85.27%</td>
</tr>
<tr>
<td>Nausea</td>
<td>3.24</td>
<td>0.49</td>
<td>2.75</td>
<td>84.88%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>3.13</td>
<td>0.47</td>
<td>2.66</td>
<td>84.98%</td>
</tr>
<tr>
<td>Photophobia</td>
<td>3.22</td>
<td>0.32</td>
<td>2.9</td>
<td>90.06%</td>
</tr>
<tr>
<td>Vertigo</td>
<td>3.15</td>
<td>0.19</td>
<td>2.96</td>
<td>93.96%</td>
</tr>
</tbody>
</table>

Table 1.6: Over All Effect of The Treatment

<table>
<thead>
<tr>
<th>Effect of therapy</th>
<th>Out of 65 Patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete remission (100%)</td>
<td>32</td>
<td>49.23%</td>
</tr>
<tr>
<td>Marked improvement (75-99%)</td>
<td>21</td>
<td>32.31%</td>
</tr>
<tr>
<td>Moderate improvement (50-74%)</td>
<td>3</td>
<td>4.62%</td>
</tr>
<tr>
<td>Mild improvement (25-49%)</td>
<td>2</td>
<td>3.08%</td>
</tr>
<tr>
<td>Unimproved (0-24%)</td>
<td>1</td>
<td>1.54%</td>
</tr>
<tr>
<td>Skipped</td>
<td>6</td>
<td>9.23%</td>
</tr>
</tbody>
</table>

Probable Mode of Action of Mig 17 Nasal Drops:
As per Modern science:
It is aqueous base medicine. When it is administered into Nasal mucosa, it is absorbed through nasal membrane and enters into the venous system. Through int. and ext. carotid artery, it reaches to the carvenous sinus and brain (cerebral part) where it stimulates autonomic and sensory nerves. Another probable mode of Action: The maxillary nerve, nasopalatine nerve, branches of greater pal-

OBSERVATION AND RESULT:
All the patients of migraine of this series were examined in detail with respect to the special Per-forma. Before starting the treatment, symptoms present in all patients were graded and their values were noted as before treatment (BT). After completion of treatment, they were noted as after treatment (AT).
atine nerves and olfactory nerves which are located in nasal cavity, are connected with the higher centers of the brain i.e., limbic system which contains amygdaloidal complex, hypothalamus, basal ganglia etc. so the drugs administered through nose stimulate the higher centers of brain which in turn effects the endocrine and nervous system functions.

As per Ayurveda science:\n
\textit{Nasa} being the entry to \textit{shirsh} (head), the drug administered through nostril reaches \textit{shringataka-sira marma} (Junctional place of Eye, Ears, Throat and opening of the vessels) by \textit{Nasa strotas} and spreads in the brain. There it detach the morbid \textit{Doshas} present above supraclavicular region and expels them out.

**DISCUSSION**

Migraine is caused by mainly Pitta and Vata Dosha. Some Classics describe it as \textit{Tridoshaja}. ‘Mig-17’ Nasal Drop has been proved that it is capable for breaking the \textit{Samprapti} (Pathogenesis) of Migraine. The drugs used in ‘Mig-17’ are indicated for \textit{Urdhvajatrugata Vikara} in classics. \textit{Amalaki} due to its \textit{Sheeta} Potency lowers the aggravated Pitta. \textit{Yastimadhu} removes the excessive \textit{kapha}. \textit{Sunthi} due to its hot property pacifies \textit{Vata} and \textit{Kapha} and increase penetration power of the formulation. In addition to \textit{Sunthi} is also recognized by Modern science and they have done a research showing it effectiveness in Migraine. \textit{Aritha} is described as \textit{Urdhva shodhana} in classics, so it has the potency to clear the blocked channels (\textit{Strotoshodhana}). \textit{Urdhvajatrugata Rogas} (Diseases of supraclavicular region) and their management have a special place in \textit{Ayurveda. Shirah (Head)} being the prime seat of knowledge and also the prime controller of the entire body has been termed as \textit{Uttamanga} (superlative organ). Hence, the diseases occurring in the \textit{Urdhvajatru} have been very clearly highlighted in the \textit{Ayurvedic} classics along with their management. \textit{Nasa} (nose) has been considered as the gateway of \textit{Shirah}. \textit{Nasya karma} is indicated to uproot the deep-seated diseases of head.

**CONCLUSION**

‘Mig-17’ Nasal Drop has shown tremendous relief in all main and associated symptoms of Migraine.

- Migraine is mostly \textit{Tridhosha} dominant disease.
- In \textit{Ayurveda}, \textit{Nasya} is described as the best treatment for Supra-clavicular disease.
- Here our drug (‘Mig-17’ Nasal Drop) is proved beneficial in treating Migraine.
- It has provided better relief than any other treatment available right now for the migraine.
- Very convenient and easy method to the patient.
- No side-effects are noted during study. In 2-3 patients, they experienced Mild Hypotension just after treatment which was managed easily.

**Acknowledgement:**

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