Evaluate the Efficacy of Shirsha Abhyanga on Ardhavabheda-A Case Study

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Abstract: Ardhāvabheda is a disease that mentioned under the Shiroroga in Ayurveda texts and it can be correlate with migraine in modern medicine. Ardhāvabheda is defined as severe pain in half of the head such as pulsating pain, throbbing pain and appearing in bouts of either fifteen or ten days and without any known cause. Shirsha abhyanga (Head massage) is one of a treatment technique include manipulating soft tissues in the scalp using circular movements to increases circulation and release the tension in head. Therefore, this case study was conduct to evaluate the efficacy of Shirsha abhyanga using Nirgundi oil on Ardhāvabheda for one month. This study was an observational case study carried out in a one patient. The Ardhāvabheda patient was selected from Ayurveda Teaching Hospital, Borella, Sri Lanka, after clinically examined well. Clinical features are recorded using a standard proforma before and after the treatment. The therapeutic effect was evaluated through symptomatic relief and it was mentioned about four symptoms with severity grade and Migraine Disability Assessment Test. After one month of treatment, overall assessment showed improvement of the healthiness of 37.50%. Therefore, this case study showed that, Shirsha Abhayanga using with Nirgundi oil is moderate effective in the management of Ardhāvabheda.

Keywords: Ardhāvabheda, Migraine, Nirgundi oil, Shirsha Abhayanga.

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Introduction

Ayurveda is mentioned as the science of life and it is mainly based on the Tridosha theory. The main aim of Ayurveda is to maintain health in healthy individuals and cures diseases in diseased persons. The main principle of health according to Ayurveda is equilibrium of Tridosha[1]. Shirsha is told as Uttamānga. Shirsha is compared with root of the tree. If we nourish the root, the trees become strong. In the same manner want to nourish the Shirsha, and then the body will become healthy.

If diseased; should treat immediately, otherwise complications will occur. Our ancient Ācharyas described 11 types of Shiro Roga; Ardhāvabheda is one among them [2]. According to the modern medicine, Ardhāvabheda is correlate with migraine.

Migraine is one of the common causes of recurrent headache.

According to International Headache Society, Migraine constitutes 16 % of the primary headaches and affects 10-20% of the general population. It is three times more common in women than men. More than 2/3rd of Migraine sufferers, either have never consulted a doctor or have stopped doing so. It is under diagnosed and undertreated, hence World Health Organization ranks Migraine among the World’s most disabling medical illness and thus migraine is now recognized as a chronic illness, not simply a headache. According to contemporary science, the treatment protocol of migraine comprises of non-pharmacological treatment such as identification of triggers, meditation, relaxation training, psychotherapy, and...
pharmacotherapy as abortive and preventive therapy.

Migraine is a 3rd most prevalent and 6th most disabling disease in the world. Also, most common neurological disorder and affects about 15% of people in Sri Lanka [3]. The treatment of Ardhāvabheda in Ayurveda is fundamentally different from that applied in other healing methods. Treatments often include fermentation on the forehead, "Nasya" with nasal drops and powders, [4] Shirsha abhyanga, Shirodhāra, Takradhāra (a treatment procedure with butter milk), Dhumpāṇa (mediated smoke which is inhaled through the nose), Chakra-massages, special foot-baths as well as relaxing body-massages [5]. Thus among various treatment modalities, special emphasis is given on Shirsha abhyanga in the management of Ardhāvabheda.

The condition chiefly caused due to the predominance of Vāta dosha or Vata-Kapha dosha. Shirsha abhyanga is one of a treatment technique include manipulating soft tissues in the scalp using circular movements to increase circulation and release the tension in head. Kapha is evacuated during Shirsha abhyanga. For this purpose, Nirgundi oil is mostly using in Ayurveda treatment. Nirgundi oil act as Kapha-Vatahara [6]. Therefore, this case study was conducted to evaluate the efficacy of Shirsha abhyanga on Ardhāvabheda using Nirgundi oil.

Case Presentation
A 21 years old male patient was referred to an Out Patient Department (OPD) at Ayurveda Teaching Hospital, Borella, Sri Lanka on June 2017 with a 5-year history of Ardhāvabheda. During the attacks, the patient experienced sharp pain, photophobia, distorted vision with visible auras, a feeling of heaviness, dizziness, and irritability, occasional nausea, hypersensitivity to sound, and a desire to lie down in a dark, noise-free room.

The pain was often on the right side of his head, occurring once every 5 to 7 days. MRI and CT scans were taken 2 years prior by a neurologist and showed no abnormalities. The patient reported no previous major illnesses or surgeries, no family history of illness, and no use of medications or nutritional supplements. He sweated easily and craved chocolate, ice cream, and fried foods. He vomited and felt nauseated weekly or once to twice a week. Under the other Rogi parikshā, both right and left pulse quality was regular and strong and had Kapha-Vata predominance pulse. He feels occasionally constipated with bleeding due to excessive strain to clear bowels (he is having Krura koshta) and no any abnormality in detected. He was prone to stress and anxiety due to his busy schedule 'cause he is a medical student. The patient had a slightly red and scalloped tongue with a thin yellow coating. The diagnosis was made based on the criteria of Migraine provided by International Headache Society [7] and the Migraine Disability Assessment Test (MIDAS test) [8].

Assessment Criteria
- The assessment was done before, during and after the treatment and results were analyzed statistically as per the assessment chart.
- Pre-test and post-test overall assessment was also done.

The Grades of Symptoms of the Patient before Starting the Treatments Were Mentioned Below
- Pulsating pain-Grade 3 (Sever pulsating pain, There is a disturbance for day to day life)
- Throbbing pain-Grade 2 (Moderate throbbing pain. There is a slight disturbance for day to day life)
- Light sensitivity-Present (Flickering light, Glaring light, Floresent light, Computer screen, TV screen)
- Visual changes-Present (Photopsia, Scotoma)
- MIDAS test –14 marks

The instructions regarding Shirsha abhyanga was given to the patient. In addition to that, the instructions regarding to food and habits which should be avoided were given to the patient. Shirsha abhyanga of 10 minutes performed once in every two days for 4 weeks continuously. Results were recorded through symptomatic relief in subsequent visits in every week. Follow up period was 2 months (Once in a month).
The intervention of Head Massage was Given Below

- Administare volume: 30ml
- Treatment time: between 9.00a.m- 9.30am

After the Head Massage

- Relaxation time: 30 minute
- After the *Shirsha abhyanga* have shower from hot water

Internal medicine was not in use during this period.

**Result**

**Pulsating Pain**

Before the treatment, this patient had severe pulsating pain (Grade 3) and there is a disturbance for day to day life. After 2 weeks of beginning of treatment, he had no any significant effect of this pain. But after the treatment his pulsating pain became moderate pain (Grade 2) and there is a slight disturbance for day to day life. After treatment patient had improvement by 25%.

**Throbbing Pain**

Before the treatment, this patient had moderate throbbing pain (Grade 2) and there was a slight disturbance for day to day life. After 2 weeks of treatment, he had not shown any significant change of this pain (Grade 2). But after the treatment his throbbing pain became mild pain (Grade 1) and there is a no disturbance for his day to day life. After treatment patient had improvement by 25%.

**Light Sensitivity**

Before the treatment, this patient presented of hypersensitivity for computer screen and TV screen. Even after the treatment he didn’t show a significant change.

**Visual Change**

Before the treatment, this patient presented of photophobia but after the treatment this photophobia became an absent. It was a significant effect.

**MIDAS Test**

As per MIDAS test pre treatment and post treatment was assessed and the results were mentioned in Table 1.

<table>
<thead>
<tr>
<th>Question no</th>
<th>Before treatment</th>
<th>After treatment</th>
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<tbody>
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<td>5</td>
<td>3</td>
</tr>
<tr>
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</tr>
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</tr>
<tr>
<td>Total days</td>
<td>14</td>
<td>5</td>
</tr>
</tbody>
</table>

According to the MIDAS grading system before treatment he had Moderate Disability on migraine. But after treatment it has become to a Mild Disability due to the decrease the numbers of suffering days.

**Overall Assessment**

The healthiness percentage of before the treatment was 18.75% and after the treatment it improved up to 56.50%. Therefore the overall improvement of the healthiness was 37.50% after the treatment.

**Discussion**

*Ardhāvabheda* is a one of a Shirshagataroga which is predominant of *Vāta -Kapha dosha*, the symptom complex of which very well correlates to that of Migraine. Migraine is an episodic headache disorder, usually characterized by severe pain on one or both sides of the head, disturbances of stomach, nausea, sensitivity to light and sound. Ayurveda enlists various *Nidāna* for *Ardhavābheda*, which includes *Āharaja*, *Viharaja* and *Mānasika* factors. Endocrinal and hormonal factors are the sole contribution of contemporary science. Most of the *Nidāna* mentioned in the Ayurveda classics, tally with migraine triggers, which has an active part in the diagnosis of the condition and as well as in planning the first line of treatment.

Most of the relaxing methods such as *Shirsha Abhyanga* are mentioned as a helping effect for restore to health on patients of *Ardhāvabheda*. This study was an observational case study carried out *Shirsha abhyanga* with *Nirgundi* oil in a patient. Post treatment overall assessment showed improvement of the healthiness from 37.50% after the treatment.
The pharmacodynamic action of Nirgundi oil has Katu, Tikta and Madhura rasa, Laghu and Ruksha guna, Ushna virya and Katu vipaka. These actions are help to pacify Vāta dosha and Kapha dosha. The patient’s Prakriti was also Vāta and Kapha. Therefore Shisha Abhyanga with Nirgundi oil may help to reduce the symptoms of Ardhāvabheda of the patient. And also patients Prakriti was also may facilitate to lessen the symptoms of Ardhāvabheda.

Conclusion
This study suggests that Shirsha abhayanga using Nirgundi oil is moderate effective in the management of Ardhāvabheda vis-à-vis Migraine. This study may aid in expanding practitioners treatment options to include a more diverse set of modalities such as Shirsha abhyanaga and more clinical studies are needed to investigate both internal and external treatment methods for Ardhāvabheda.

References