## A Randomised Controlled Trial to Evaluate the Efficacy of Sheravydha and Jaloukaacarana in Ardhavabhedaka with Special Reference to Migraine

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*How to cite this paper:* Dr. Santhosh S Pujari "A Randomised Controlled Trial to Evaluate the Efficacy of Sheravydha and Jaloukaacarana in Ardhavabhedaka with Special Reference to Migraine" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-7 | Issue-1, February 2023, pp.151-156, URL: www.ijtsrd.com/papers/ijtsrd52650.pdf



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## 1. INTRODUCTION

The aim of the entire human is to attain happiness. To achieve this, a healthy state of physical, emotional, intellectual and spiritual plans is necessary. Ayurveda is the science of life has an aim of preservation of health of a healthy person and cures the diseases. It has eight branches, which comprises of kaya chikitsa, shalya tantra, shalakya tantra, bhutavidhya, kaumarabrithya, agada tantra, rasayana and vajikarana chikitsa.

Shiras is considered as uttamanga as it is the seat of prana and all indrivas<sup>1</sup>. In addition to that it is also considered as one among trimarmas<sup>2</sup>. It is sadhyopranahara in nature. Therefore any injury or disease will give rise to fatal complications.

The disease ardhavabhedaka is one among the 11 types of shirorogas considered by our Acharyas<sup>3</sup>. The causes of Ardhavabhedaka are excessive intake of ruksha padarthas, Adhyashana, Purva vata sevana, Atimaithuna (excessive coitus), Vegadharana (suppressing of natural urges), Atishrama (excessive work) in which pain is appreciable in one half of the shiras, Shanka, Bru, lalata, and in Karna pradesha<sup>4</sup>. The attacks of ardhavabhedaka will be once in three days/fifteen days and once in a month as per classics<sup>5</sup>. It can be correlated with migraine based on the similarity in etiology, pathology, symptoms and treatment principles.

Headache is becoming common problem worldwide in these days. In that around 35% of patients are suffering from migraine headache.

As per acharya Charaka and modern science it is said that ardhavabhedaka, if left untreated it leads to diseases like deafness and blindness<sup>7</sup>. Hence an early treatment intervention is needed for ardhavabhedaka.

We get elaborate description of the disease ardhavabhedaka and its treatment in our classics. Acharya sushrutha mentioned that siravydha is said to be the ultimate treatment of ardhavabhedaka when all other treatment fails<sup>7</sup>. Yogarathnakara mention a same line of treatment for suryavartha and ardhavabhedaka in which siravedha is included<sup>8</sup>. So, a clinical study is planned "A Randomised Controlled Trail to Evaluate the Efficacy of Sheravydha and jaloukaacarana In Aedhavabhadaka with Special Reference to Migraine".

## 2. REVIEW OF LITERATURE

## Charaka samhita:

nidana, samprapthi, bheda, lakshana and chikitsa are explained in detail<sup>9</sup>.

## Sushruta samhita:

- paroxysmal nature, doshik involvement and symptoms have been described in detail<sup>10</sup>
- samanya chikitsa and vishesha chikitsa of ardhavabhedaka is described<sup>11</sup>

## Ashtanga sarngraha:

- samanya nidana, nirukthi, paroxysmal nature and complications are explained<sup>12</sup>.
- chikitsa of ardhavabhedaka is explained in detail<sup>13</sup>.

## Ashtanga hridaya:

- samanya nidana, nirukthi, paroxysmal nature and complications are explained<sup>14</sup>.
- samanya and vishesha chikitsa of ardhavabhedaka is explained<sup>15</sup>.

## Madhava nidana:

➢ vishesha nidana, bheda, sites of pain and nature of pain is described in detail<sup>16</sup>.

## Bhavaprakasha:

vishesha nidana, samprapthi, bheda, sites of pain, nature of pain and chikitsa is described<sup>17</sup>.

## Sharangdhara Samhita:

In poorva khanda ardhavabhedaka is specified to be caused due to vata<sup>18</sup>.

## Yogarathnakara:

Vishesha nidana, samprapthi, bheda, sites of pain, nature of pain and chikitsa is described in detail<sup>19</sup>.

## Chakradutta:

 $\blacktriangleright$  Many yogas for ardhavabhedaka are mentioned<sup>20</sup>.

## 3. PREVIOUS RESEARCH STUDIES

- 1. Dr. Rohit R.S– Evaluation of efficacy of Siravyda in the management of Ardhavabedaka (Hassan RGUHS 2002- 2003)
- Dr. Chiranjeevi N S A Study on the efficacy of dashamoolatailamatrabasthi in ardhavabhedakaw.s.r To migraine (2009) Govt. Ayurvedic medical college Bangalore.
- 3. Dr. DeepthyArjun-Clinical evaluation of Yastimadhu Gritha Naysa in The Management of Ardhavabhedaka w.s.r.to migraine (2010) SDM college of Ayurveda and hospital Hassan
- 4. Dr. Chetansindhu C M- Clinical evaluation of efficacy of DashamoolaTailaNasya With and without Sa SharkaraKsheera as Patya in management of Ardhawabhedakaw.s.r. to Migraine (2012) Sri Jagadguru Gavisiddeshawara Ayurvedic medical college koppal.

## 4. Objectives of the study:

The present study named evaluation of the efficacy of siravydha in the management of ardhavabhedaka was carried out with following objectives.

- 1. To evaluate the efficacy of siravydha in ardhavabhedaka.
- 2. To evaluate the efficacy of jaloukaacarana in ardhavabhedaka.

## 5. Hypothisis:

Establishment of the efficacy of Siravyadha and jaloukavacarana as a choice of treatment in management of Ardhavabhedaka by simplifying the techniques.

## 6. Materials and methods

## A. Source of data

100 patients in each group suffering from ardhavabhedaka will be selected from O.P.D and I.P.D of R.P. Karadi Ayurvedic Hospital, attached to SVM Ayurvedic Medical College-Ilkal.

- B. Materials taken for the shiravyda and jaloukavacarana are:
- 1. Yavaagu
- 2. Murchita tila taila

- 3. Spot light.
- 4. Dressing trolley.
- 5. Mrudhu sweda.
- 6. Vreehimukha shastra (Scalp vein set)
- 7. Haridra,
- 8. Gauze piece,
- 9. Needle,

## Site of siravyadha and jaloukavacarana:

As per the diseases acharyas told different sites for siravyadha. In case of ardhavabhedaka, siravyadha should be performed on apanga (Zycomatic temporal vein).

## **Positioning the patient:**

Acharya Sushruta has mentioned different position of patients in different diseases for siravyadha. The patients should be advised to have a comfortable position with respect to the site of procedure.

## Materials and depth of siravyadha:

In fleshy part the instrument should be introduced as deep as the measure of barley, in a less flesh part the puncture ought to be only as deep as half the measure of barley or equal to a vreehi with vrihimukha instrument. Over the bones puncture with a kutharika should be done as deep as half a barley<sup>21</sup>.

## Poorva karma of siravydha: Preparation of patient

## Snehana:

Shodhananga snehapana should be given in increasing dose till the patient attains samyag snigdha lakshanas.

## Abhyanga and Swedana:

Sthanika abhyanga and swedana should be performed after patient attains samyak snigdha lakshana, a day of venesection.

The patient should be fed with yavagu, laghu dravya before venesection. It is said that doshas are diluted by the process of snehana and swedana by this process they pass in to the siras therefore the patient should be prepared for siravyadha by snehana and swedana karma to remove vitiated raktha due to doshas from the body. Yavagu should be given to prevent the patients from fainting during the procedure<sup>22</sup>.

## PRADHANA KARMA<sup>23</sup>:

The physician after making the patient perform all the auspicious ceremonies, after determining the strength of disease and habit of the patient, should give him either soup of meat of animals living in arid lands or a thick gruel mixed with fatty materials (ghee or oil) as a drink; allow him to comfortably rest for about a muhurtha (48 minutes), either in the morning or in the afternoon. Afterwards he should be made to sit on a

soft stool of the height of the knee, placing his elbows on his knees and, placing the feet together comfortably on the floor facing the sun. At the level of the lower border of the hairs of the head, a tight bandage should be tied making use of moist cloth, leather or inner bark of the tree. The patient is then asked to keep the thumbs inside his fists, cover them with cloth and clench them as hard as he can. accompanied with biting the teeth one over the other as hard as possible, inflating his mouth. Another person standing behind the patient should put a long piece of cloth around the neck of the patient, make a knot around, with that cloth over the nape of patient's neck, twist the knot to tighten the knot around the neck taking care not to block the respiration. This will be the method to control and raise the veins which are facing inwards (in other words placed deep underneath the skin) and which are forbidden.

Then the physician should raise the vein by tapping on it with his middle finger triggered by the thumb. On finding that the vein has risen up, is pulsating and full for touch, he should hold the khutarika (axe) with his left hand keeping its handle up, place it on the vein in its centre, tap it with his middle finger triggered by the thumb or press it with the middle of the thumb. At places where the vein is hidden or the skin is thick, pressing with the thumb to cut the vein should be done carefully.

Strangling with the cloth, clenching the fist, grinding lopm the jaws, inflating the mouth, tapping on the vein are all meant to raise the pressure inside the veins. SSN: 2456-0

## Amount of blood letting:

One prastha has been advocated as the maximum limit of blood letting in a strong adult person with excessively vitiated doshas. In this regard Dalhana enlightened that blood can be let out in order of one prastha, <sup>1</sup>/<sub>2</sub> prastha and one kudava, in case of uttama, madhyam & heena matra respectively<sup>24</sup>.

# Table 1 Amount of blood to be removed in siravedha

Maximum	1 Prastha	768 ml.
Medium	1⁄2 Prastha	384 ml.
Heena	<sup>1</sup> ⁄ <sub>4</sub> Prastha	192 ml.

## Normal limit of blood letting:

An intelligent surgeon should allow a part of the vitiated blood to remain rather than drain it excessively. Alleviating measures should be followed to pacify the remaining dosha in the blood<sup>25</sup>.

## **Observation during venesection:**

Venesection is just dissection (incision on vein) to let out the morbid vein compared to the discharge of yellow juice which comes out by squeezing of kusumba flower, the excited and mobilized morbid factors are discharged out<sup>26</sup>. Paschat karma<sup>27</sup>:

## **Proper attention to Regimen:**

After bloodletting is done the food or diet, which is neither hot nor cold and is light, which can be easily digested, and that which stimulates the digestion are recommended. The power of digestion as well as the power of metabolism is to be carefully maintained. If the food and drinks are extremely cold then it impairs digestion and metabolism and if the food is too hot it creates instability of the blood. So the food, which is neither very hot nor very cold, is advisable. The food, which consists of buttermilk with yoosha, yavagu, Peya must be given to the patient. One has to protect his Agni, with this intake of diet which promotes the formation of blood, grutha and sheetajala parisheka must be advised.

Krodha, bhaya, ayasa, divaswapna, maithuna, driving, riding on vehicals, study, expotutre to cold, wind and water prolong sitting in a single place, viruddahara, asathmya bhojana, ajeerna bhojana are contraindicated for one month.

#### C. Mode of Action

Shiravydha is predominantly indicated in pitta, Rakta and kaphaja vyadhies or when pitta or kapha is in anubandha to vata prakopa due to kapha and pitta avarana, siravedha can help to remove the avarana of pitta and kapha dosha giving way for anuloma Gati of vitiated vata that indirectly cures the vatika symptoms along with symptoms produced by kapha dosha. During the procedure, some patients got immediat relief in symptoms but after 3 to 4 days the symptoms reappeared. It may be because of pure vataja type of ardhavabhedak without anubandha of kapha. Hence hypothetically it can be said that the shiravedha is useful in patients when their is avarana janya samprapti of ardhavabhedaka in vata kaphaja ardhavabhedaka.

The cause of Ardhavabhedaka is said to be trodosha, which vitiates the raktha and indriyas. Involment of only raktha dhatu is seen in ardhavabhedaka. Hence siravedha is selected.

## JALOUKAVACARANA VIDHI: PURVAKARMA:

- Jalouka Sangraha
- Jalouka samrakshana
- Jalouka Siddhata
- ➢ Rogi Siddhata.

## **PRADHANA KARMA:**

- It includes following.
- ➢ Jaloukavacarana
- Nirikshana

**Jaloukavacarana:** Jalouka should be held with small, white, wet cloth, gauze or cotton by covering its mouth it will catch damaged skin better way and will stick at that pace. If jalouka is no able to stick and bite to the desired area, than a drop of milk, blood, ghee or honey should be dropped on the affected part, if leech does not bite by doing so, than slight incision should be made over the lesion, after above said efforts, if jalouka does not hold at desired spot, the leech should be discarded and other fresh leech should be applied,

After application of jalouka, their body should be covered with a piece of thin and wet cloth or cotton and cool water should be dropped on the covering part continuously to provide cooling effect,

**Nirikshana:** Features of joluka sucking: when the leech bites the affected area & starts sucking, the anterior sucker assumes the shape of a horse shoe (Asvakhuravaat ananam,unnabhya vaskandham). The neck of jalouka looks like a breathing rhythm of little child and continuous pulsation like peristalsis movement over the body.

Jalouka sucks vitiated blood only just like swan drinks only milk not water, when sensation of itching

and pain occurs at the set of the application. It indicates that, leech started to suck the fresh blood, and then the leeches should be removed.

If leeches refusing to detach even after the appearance of proper signs and symptoms of raktamokshana or sticking to the affected part by their fondness for the smell of blood or due to their greediness or eagerness should be removed by sprinkling the saindhava powder (rock salt).

### PACHAT KARMA:

- Jalouka Upachara
- Rogi Upachara.
- 5. Method of collection of data

Study Design: Randomized clinical study

**Sample size**: Total 100 patients in each group will be selected.

#### **Duration of the treatment**

Each time after siravydha and jaloukavacarana the patient was observed on the fifteenth day. The total duration of the treatment was one month, siravedha and jaloukavacarana performed twice in a gap of fifteen days.

#### Total study duration; 30days

Group	Sample Size	Method	<b>Treatment Duration</b>	Followup	<b>Total Duration</b>
GROUP A	100	SHIRAVYADHA d in	Sci1 <sup>st</sup> day, 15 <sup>th</sup> day	30	30
GROUP B	100	JALOUKAVACARANA	ch al <sup>st</sup> day, 15 <sup>th</sup> day	30	30

## **Diagnostic criteria:**

I H S criteria for primary headache disorders

## **Criteria for Assessment**

All the patients were examined initially for the improvement during their visit for the second course of siravydha and jaloukavacarana and once again fifteen days after the second course.

The criteria for assessment includes -

- Duration of pain
- ➢ Frequency of attack
- Severity of pain
- Associated symptoms

## Inclusion criteria:

- 1. Patients between the age group of 18 60 years were randomly included for the study.
- 2. Patients with symptoms of common and classical migraine.
- 3. Patients irrespective of the chronicity were taken up for the study.

## **Exclusion criteria:**

- 1. Referred pain in one half of the head due to disorders of eye, ear, nose, throat, teeth etc.
- 2. Patients with Complicated migraine, Opthalmic migraine, Retinal migraine, basilar artery migraine.

Develop 3: Ardhavabhedaka complicated with loss of hearing or vision.

- 4. Patient's contra indicated for siravydha.
- 5. Patient's contra indicated for jaloukavacarana.

## **Statistical method:**

Suitable Statistical method is selected for the statical data.

## Laboratory investigations:

Blood: Hemoglobin estimation,

Erythrocyte Sedimentation Rate,

Clotting time,

Bleeding time and

Random Blood sugar.

Urine: Random urine sugar.

#### 6. Ethical clearance:

Yes, Obtained.

## 7. Referance:

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