

## A LITERARY REVIEW OF ARDHAVABHEDAKA VIS-A-VIS MIGRAINE IN BRIHATRAYEE

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### ABSTRACT

*Ardhavabhedak* roga is one among the *Shiroroga* as described by our Acharyas. *Ardhavabhedak* is *Vata-Kaphaja* by *Acharya Charaka*, *Tridoshaja* by *Acharya Sushruta* but according to *Acharya Vagbhata* it comes under *Vataja Shirahshula* which is limited to the half of the portion of head i.e. “*Ardhetu moordhanah so ardhavabhedaka*”. *Chakrapani* commentator of *Charak Samhita* statement regarding *Arddhavabhedka* runs as follows: “*Arddha Mastakavedana*” i.e. Vedana in half of the portion of the head is called *Arddhavabhedaka*. It is described as a *sadhya* (type) of *Siroroga*. According to *Acharya Shushruta* *Ardhavabhedaka* is characterized by severe tearing and

pricking pain in the half portion of head with giddiness suddenly after a fortnight or ten days. The severe pain is associated with mental confusion. *Ardhavabhedaka* etiology and symptoms are most appropriately related to migraine hence it can be co-relate with migraine headache of modern medicine. A migraine is a primary headache disorder and third most common disease in the world characterized by recurrent headaches that are moderate to severe.<sup>[1]</sup> Migraine is the 3rd most prevalent and 7th leading cause of disability worldwide. India, where the prevalence of migraine is unknown.<sup>[2]</sup> Typically, the headaches affect one half of the head, are pulsating in nature, and last from 2 to 72 hours.<sup>[1]</sup> Associated symptoms may include nausea, vomiting, and sensitivity to light, sound, or smell.<sup>[3]</sup> This disease occur due to various faulty(irregular) life styles i.e. *Adhyashana* (irregular patterns of eating – again eating prior to digestion of earlier meals), *Vegadharana* (suppression of natural urges), *Ayaas* (excessive exertion), *Atimaithuna* (excessive indulgence in sexual activities) and *Purva Vata & Avashyaya* (roaming around in cold air) etc and psychological factors i.e. *Manah-santapa*, *Rodana*, *Shoka*, *Bhaya* etc. may be few reasons for the vitiation of the *Tridosha*, which may cause *Ardhavabhedaka*. Due to dreadful complaints (disease), in this article we have planned

to study the complete review which was explained in the *Brihatrayee* and tried to correlate and understand the *Ardhavabhedaka* disease with migraine.

**KEYWORDS:** *Ardhavabhedaka*, Migraine, *Nasya*, *Shiroroga*.

## INTRODUCTION

The history of *Ayurvedic* medicine is as old as human civilization. The *Vedas* are most ancient and original source of medical knowledge. In *Ayurvedic* classics and *Sanskrit* literature word “*Shirah shoola*” has never been considered as major disease but it has been an independent disease (separate disease). *Ardhavabhedaka* is a *Shiroroga* mentioned in various texts of *Ayurveda*. Some *Acharyas* has been classified as *Vataja*, *Vatakaphaja* and *Tridoshaja roga*. *Acharya Chakrapani* has described *Ardhavabhedak* as “*Ardhamastak Vedana*”<sup>[4]</sup> means Pain of half of the frontal region. *Brihatrayee* has three major classic of *Ayurveda* as *Charak Samhita*, *Sushruta Samhita* and *Ashtanga Hridaya*.

*Ardhavabhedaka* can be co-relate with migraine headache mentioned in allopathic system of medicine. Migraine is the most common neurological cause of disability in the world.<sup>[1]</sup> It is more prevalent than diabetes, epilepsy and asthma combined.<sup>[5]</sup> According to the Global Burden of Disease (GBD) Study 2015, migraine was ranked third–highest cause of disability worldwide in both males and females under the age of 50 years.<sup>[6]</sup> Migraine is the third most common disease in the world with an estimated global prevalence of 14.7% (that’s around 1 in 7 people).<sup>[3]</sup> Migraine affects younger adults, especially it is more common in women than in men (2 to 3 : 1).<sup>[7]</sup> The incidence of migraine peaks between 15 years and 24 years of age, and the prevalence is highest among persons between the ages of 35 and 45 years.<sup>[8]</sup> Chronic migraine affects approximately 2% of the world population.<sup>[9]</sup> Anxiety and depression are significantly more common in people with migraine than in healthy individuals.<sup>[9]</sup> Stress is one of the most prominent precipitating factors. Stress triggers migraine in approximately 60% of the patients. The International Classification of Headache Disorders, 2nd edition" (ICHD-2) classified into 2 broad categories: primary headaches and secondary headaches. A migraine is a primary headache disorder characterized by recurrent headaches that are moderate to severe.<sup>[1]</sup> Typically, the headaches affect one half of the head, are pulsating in nature, and last from 2 to 72 hours.<sup>[1]</sup> Associated symptoms may include nausea, vomiting, and sensitivity to light, sound, or smell.<sup>[1]</sup> Unfortunately, its ranking is increasing with time. Migraine is diagnosed according to the diagnostic criteria of the International Classification

of Headache Disorders 3rd Edition beta version (ICHD-3beta). The major subtypes of migraine are

1.1 “*Migraine without aura*” (common migraine) and

1.2 “*Migraine with aura*” (classic migraine)

The major sub form is 1.2.1 “*Migraine with typical aura*”.

The clinical features includes

**Table No 1: Clinical Features of Migraine Subtypes.**

1.1 Migraine Without Aura	1.2 Migraine With Aura
No aura or Prodrome	Aura or prodrome is present
Unilateral throbbing headache may be accompanied by nausea and vomiting	Unilateral throbbing headache and later becomes generalized
During headache, patient complains of phonophobia and photophobia	Patient complains of visual disturbances and may have mood variations

The frequency, duration, and intensity of migraine attacks can vary from person to person and from episode to episode. The majority of migraine patients experience periods of temporary disability that affect their work and leisure activities and, thus, their productivity and quality of life. Majority of the drugs employed in modern medicine for this disease are almost limited to suppress the symptoms. A repeated and long term use of such drugs is found to cause serious side effects like memory loss, gastro - intestinal disorders, weight gain etc. and tend to be habit forming. Therefore, search for a safer management is of great importance. Keeping in mind the above concept, this study has been planned with following aims and objectives.

#### **AIMS AND OBJECTIVES**

- To understand the *Ayurvedic* concepts and literary review of *Ardhavabhedaka* related to the symptoms and management according to *Brihatrayee*.
- To comparative study between *Ardhavabhedaka* and Migraine.

#### **MATERIALS AND METHOD**

Complete review of *Ardhavabhedaka* from *Brihatrayee* and its commentaries and review of migraine from literature of modern medicine, Journals, etc..

## REVIEW OF LITERATURE

Ayurvedic texts describe not only Shirahshoola as a symptom of various diseases but it is also an independent disease entity as “Shiro-roga”. Chakrapani statement regarding Shiroroga -“Shiroroga shabdenochyante, shirorogashabdasya shula eva rujakare vrittatvaat”<sup>[10]</sup> i.e Shirahshoola denotes Shiroroga the painful condition of head. The term Shirahshoola is limited only to the pain developed in the head. Though Khalitya, Palitya etc. occur in the head region they are not included in the Shiroroga. In Chikitsasthan Acharya Chakrapani further “Shirorogapradhantvaadbhurishiroroghetutatvat cha pratishayaymeva tavidaha”<sup>[11]</sup> described that among the disease of various part of the head, it is the Pratishyaya which is the most important one because it gives rise to several other diseases of the head. The word Ardhavabhedaka has two components viz. Ardha and Avabhedaka. Ardha means half side, Ava suggest bad prognosis, Bhedaka means breaking through, perforating or bursting out type of pain. In this, pain affects half region of the head. Chakrapani statement regarding Arddhavabhedka runs as “Arddha Mastakavedana”<sup>[12]</sup> i.e. Vedana in half of the portion of the head is called Ardhavabhedaka. Vagbhata's statement regarding Arddhavabhedka is “Arddhe tumoordhanah soarddhavabhedaka”<sup>[13]</sup> Vedana in half of the portion of the head is called Ardhavabhedaka. As per Charaka Ardhavabhedaka is Vata-Kaphaja pradhana<sup>[14]</sup> and in Sutrasthana five types of Shiroroga viz. Vataja, Pittaja, Kaphaja Sannipataja and Krimija.<sup>[15]</sup> In Siddhithana four additional types of Shiroroga was explained i.e. Shankhaka, Ardhavabhedaka, Suryavarta and Anantavata. Susruta explained eleven types of Shirorogas and among them Ardhavabhedaka is one of them is Tridoshaja pradhana vyadhi<sup>[16]</sup> and their management are described in uttarantra, but as per Vagbhata it comes under Vataja Shirahshula which is limited to the half of the portion of head.<sup>[17]</sup> Vagbhata devotes two chapters of uttarantra to ten types of Shiroroga and their management. He further mentioned nine types of disease of Shirah kapala.<sup>[18]</sup>

## NIDANA & SAMPRAPTI

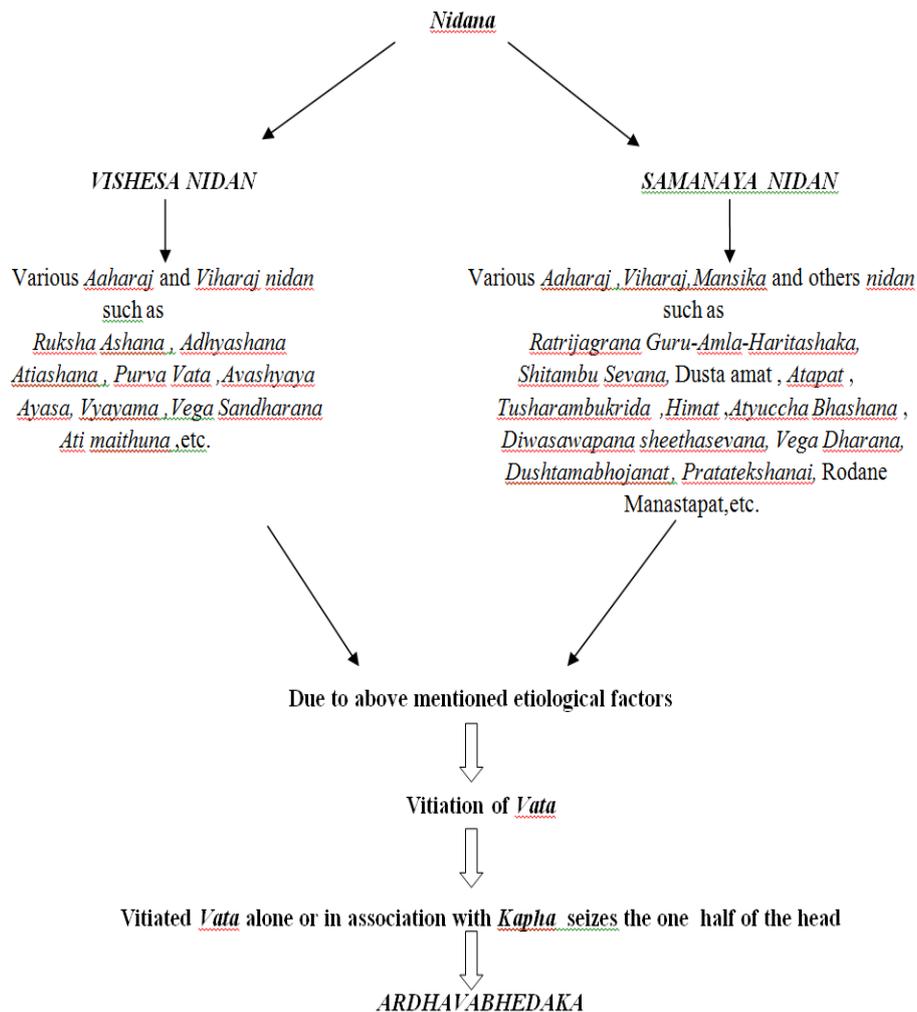
**Table No 2: There is a following Nidan tabulated below as Classics.**<sup>[19]</sup>

Sl.	SPECIFIC NIDANA	Charak	Susruta	Vagbhata
1.	<i>Ruksha Ashana</i>	+	-	-
2.	<i>Atiashana</i> (food in excess quantity)	+	-	-
3.	<i>Adhyashana</i> (intake of food before previous meal is digested)	+	-	-
4.	<i>Purva Vata &amp; Avashyaya</i> (exposure to the easterly wind as well as fog)	+	-	-
5.	<i>Ati maithuna</i> (excessive sexual indulgence)	+	-	-
6.	<i>Vega Sandharana</i> (suppression of the manifested natural urges)	+	-	+
7.	<i>Ayasa</i> (fatigue)	+	-	-
8.	<i>Vyayama</i> (physical work)	+	-	-

Apart from the specific *nidanas* mentioned by *Charaka*, the *Samanya* (general) *nidanas* for *Samprapti* (pathology) of *Ardhavybedaka* are -

**Table No 3: There is a following Samanya Nidan tabulated below as Classics.**<sup>[17,20]</sup>

Sl.	General ( <i>Samanya</i> ) <i>Nidanas</i>	Charak	Susruta	Vagbhata
1	Sandharan /Vegavidarnaih (suppression of natural urges)	+	-	+
2	Divaswapna /Atiswapnaat (excessive day sleep)	+	-	+
3	Ratrau Jagarnaad/Atiprajaagraih (excessive night sleep)	+	-	+
4	Madat/Atyamaddapanen(Consuming excess alcohol)	+	-	+
5	Ati sheetambu Sewanaat/Atyambupanen (↑cold water intake)	+	-	+
6	Uccherbhashyat/Bhasyaade (Speaking loudly)	+	-	+
7	Avashyay/ Tusar(Exposure to fog /Mist)	+	-	+
8	<i>Prgvaat/Adhivat</i> (edexposugvare to eastern wind)	+	-	+
9	Adhipuro(Exposure to heavy breeze)	-	-	+
10	Asatmya Gandh (undesirable smell)	+	-	+
11	Aghrataat	+	-	-
12	Rajo (exposure of dust)	+	-	-
13	Dhuma (exposure of smoke)	+	-	+
14	Hima (exposure of snowfall)	+	-	-
15	Atapa (exposure of Sun /heat)	+	-	+
16	Gurvamlaharitadaanaat(heavy food, sour food, rhizomes)	+	-	-
17	Shiro Abhighatat (head injury)	+	-	-
18	Dusta amat(vitiated ama)	+	-	+
19	Rodanaih (weeping too much)	+	-	+
20	Baspanigrahat(suppression of tears)	+	-	+
21	Meghagam(advent of cloud)	+	-	-
22	Manastapat(mental stress)	+	-	-
23	Deshaviparya(regimen contrary to locality)	+	-	-
24	Kalviparya(regimen contrary to season)	+	-	-
25	Ambukrida (Over indulgence in water sports)	-	-	+
26	Utseda(Sweating)	-	-	+
27	Adhipuro(Exposure to heavy breeze)	-	-	+
28	Krimbhi(Presence of intestinal worm)	-	-	+
29	UpshandwesadAvoiding the use of pillow)	-	-	+
30	Mrijadwesad(Avoiding the cleanliness)	-	-	+
31	Abhayandwesad Avoiding the oil-anointing)	-	-	
32.	Pratatekshane(Always looking down word)	-	-	+



### AYURVEDIC EXPLANATION

The hyper action of the nerve cells and expansion and dilation of blood vessels are caused because of the *Vata* vitiation due to the above factors. This further vitiates *Pitta* and *Kapha* which causes the inflammatory process. Majority of the causes are *Vata prakopaka*. *Pitta* and *Kapha dosha* vitiating as well as *Rakta dosha* vitiation are observed. *Dalhana* told that *Ardhavabhedaka* is due to aggravation of *Vata* and *Pitta* “*Tasyardhbhedam Pavanaat Spittat*”*ite*. All *Acharyas* decidedly accept the involvement of *Vata dosha* in the *samprapti* of *Ardhavabhedaka*. This is justified by the cardinal feature *shula* (pain).<sup>[21]</sup> *Ardhavabhedaka Roga* is mainly caused by vitiation of *Vata* followed by minimum to *Pitta* and *Kapha Dosha*. *Charaka* expressed that *Rakta* is the main *dushya* in all types of *Shiroroga*<sup>[22]</sup> and it has also main role in *Samprapti*. *Acharya Charaka* has mentioned the involvement of *Shirogata Sira* in diseases occurring in head. He stated that the vitiated *Dosha* vitiates *Rakta* along with *Shira* situated in *Shirah* and produce *Shiroroga*<sup>[20]</sup> thus *Rakta* is the main *dushya* in *Ardhavabhedaka*.

*Susruta* and *Vagabhatta* didn't described *nidan* for *Ardhavabhedaka* and not due to suppression of natural bodily urge while *Acharya Charak* explained *nidan* due to suppression of natural bodily urge i.e. *Kshavathu vega*.<sup>[23]</sup> *Susruta* didn't mentioned about *nidan* for *Ardhavabhedaka*, but only described the *lakshana of Ardhavabhedaka*.<sup>[24]</sup> *Acharya Vagabhatta* did not described about *nidan* for *Ardhavabhedaka* but considered the general *Nidan of shiroroga* for the cause of *Ardhavabhedaka* too. *Charaka* have described *Samprapti of Ardhavabhedaka* (C.Si.9/75). In other *Ayurvedic* literature *Ardhavabhedaka* is not mentioned in detail.

### Role of Dosha In Ardhavabhedaka

*Charak:*        →    *Vata/Vata pradhan Kaphajanya*

*Susruta:*       →    *Tridoshajanya*

*Dalhana:*      →    *Vata Pittajanya*

*Vagbhatta:*     →    *Vatajanya*

The common migraine precipitating/ aggravating factors identified in various epidemiological studies include stress, mental strain, fatigue, sleep, menstrual cycle, weather change, temperature change, frequent travels, odor, hunger, and alcohol. Stress triggers migraine in approximately 60% of the patients.<sup>[25,26]</sup> The recurrence of migraine attack may depend either on a reduced threshold or on particularly strong or frequent triggers on both.<sup>[27]</sup>

Migraines seem to be triggered by external factors are<sup>[28]</sup>

- **Psychological factors:** stress, mental strain, fatigue, sleep (too much or too little)
- Sensitivity to specific chemicals and preservatives in foods
- **Caffeine:** Excessive caffeine consumption or withdrawal from caffeine
- **Alcohol:** Excessive caffeine consumption or withdrawal from alcohol
- **Environmental factors:** weather change, temperature change, frequent travels, odor
- **Other factors:** Menstrual periods, excessive fatigue, skipping meals, changes in normal and sleep pattern.

### Modern explanation<sup>[29]</sup>

Migraine is believed to be a neurovascular disorders with evidence supporting its mechanisms starting within the brain and then spreading to the blood vessels, increased excitability of the cerebral cortex and abnormal control of pain neurons in trigeminal nucleus

of the brainstem. Low levels of neurotransmitters serotonin also known as 5-hydroxytryptamine are believed to be involved.

### How pain caused in migraine<sup>[29]</sup>

There is a migraine "pain centre" or generator in the brain. A migraine begins when hyperactive nerve cells send out impulses to the blood vessels, causing them to clamp down or constrict, followed by dilation (expanding) and the release of prostaglandins, serotonin, and other inflammatory substances that cause the pulsation to be painful.

### Purvarupa

In *Ayurvedic* classics no specific *Purvarupas* are mentioned for *Ardhavabhedaka*.

### Roopa

**Table. No 4: There is a following *Ardhavbhedaka Lakshana* tabulated below as Classics.**<sup>[14,16,17]</sup>

<i>Ardhavbhedaka lakshana</i>	<i>Charaka</i>	<i>Susruta</i>	<i>Vagbhatta</i>
Excruciating Pain in the Sterno mastoid region	+	-	-
Excruciating Pain in the Eye-brows	+	-	+
Excruciating Pain in the Temples	+	-	-
Excruciating Pain in the Ears	+	-	-
Excruciating Pain in the Eyes	+	-	-
Excruciating Pain in the half side of fore-head	+	-	+
Excruciating Pain as caused by the injury of a weapon or arani i.e. churning wood used for bringing forth fire	+	-	-
If exceedingly aggravated, destroy the Eyes	+	-	+
If exceedingly aggravated, destroy the Ears	+	-	+
Tearing/Splitting pain appearing in bouts of i.e. intervals of either fortnight or ten days	-	+	-
Pricking pain appearing in intervals of either fortnight or ten days	-	+	-
Giddiness appearing in the intervals of either fortnight or ten days	-	+	-
Piercing pain appearing in the intervals of either fortnight or ten days	-	+	-
Sambheda etc. appearing suddenly without any known cause	-	+	-
Cracking sensation in the Nape i.e.Ghata	-	-	+
The central part of eye brow has burning sensation	-	-	+
The forehead burning sensation	-	-	+
pain and noise in the ear	-	-	+
Eye feels as though being pulled out	-	-	+
Giddiness/head reels	-	-	+
Feels loose in shirah joints	-	-	+
Excessive throbbing/pulsation in the network of Veins	-	-	+
Rigidity of the lower jaw and Shoulder	-	-	+
Intolerance to light	-	-	+
Running in the nose	-	-	+

relief of pain (headache) without any reason occasionally	-	-	+
Reduction in its severity by massaging, anointing with oil, fomentation and bandaging	-	-	+
appearing in either at (intervals of a fortnight or a month)	-	-	+
subsides of its own accord	-	-	+

Charaka “Shankhabhedah Shankho Lalaateaikdeshastasya vedana” described the Ardhavabhedaka in Vataj Nanatmaja Vikara as Shiroruk (Headache), *Shankha Bheda* (Temoporal headache) and *Lalata Bheda* (frontal headache) which are the main symptoms of Ardhavabhedaka. Charak and *Vagbhata* equally mentioned lakshana such as *Manya ativedana*, *Bhruativedana*, *Shankha ativedana*, *Karna akshi ativedan*, *Lalate ativedana*, *Shastraraninibhaam Kuryaatativram*, etc., which is not available in *Sushruta*. *Lakshana* “*Pakshatkupyate Masadvaa*” (fortnight or a month and subsides of its own accord), *Swayamev Shamyate* mentioned only by *Vagbhata* but *Sushruta* mentioned symptoms *Sambheda*, *Toda*, *Bhrama*, *Shula* suddenly after a *Pakshata* (fortnight) or *Dashahada* (ten days), *Akasmaat*(appearing suddenly). *Susruta* mentioned lakshana *Bhrama* for *Ardhavabhedaka*. It is contributed by *Vata*, *Pitta* and *Rajas* (“*Rajah Pittanilat Bhram*”) and involves the *Raktavaha srotas*.

Other syndromes causing *Ardhavabhedaka* like symptoms which are described in *Ayurvedic classics*:<sup>[30]</sup>:

1. *Anyatovata* (*Netraroga* / Eye disease): Pain in *manya*, *akshi* and *sankha* regions. According to *Susruta* severe pain is felt at *karna*, *manya*, *hanu*, *greeva*, *netra* and *bhru* regions.
2. *Vataparyayam* (*Netraroga* / Eye disease): (a) Severe pain is left in *pakshm*, *akshi* and *bhru* regions. (b) *Drishtinasa* is seen as complication.
3. *Adhimantha* (*Netraroga* / Eye disease): Headache is a predominant symptom especially in *vataja* type *adhimantha*. (a) *Siroantarvedana*, (b) *netravedana*, (c) *karnanada*, *bhrama* and *lalata bhru vedana*, (d) *Sankha/danta*, *kapola*, *kapalasthi ruja* are seen in *raktaja adhimantha*.
4. *Vataja Abhishyanda* (*Netraroga* / Eye disease): (a) *Nistoda*, *stambhana*, *romaharsha*, *sirobhitapa*. (b) Pain is felt at *sankha*, *lalta bhru* and *akshi*.
5. *Ardhitavata* (*Vataroga* / Disorder of nervous system): Pain is felt in half of the portion of face and head with other associated symptoms.

**UPASHAYA – ANUPASHAYA****Upashaya**

Such of the medicines, diets, and regimen as bring about happiness either by acting directly against the cause of the disease, and or the disease itself or by producing such effects indirectly are called *Upasaya*. Vihara—“*Mardavam Mardan Sneha Sweda Bandhaischa Jayat*” (A.H.Ut 23/6<sup>1/2</sup>) i.e. Mardana, Svedana, Snehana, Bandhana.

**Anupashaya:** The entire nidanasevana mentioned earlier is *Anupashaya* for *Ardhavabhedaka*

**Sadhyasadhyata**

In *Samhitas* the *Sadhyasadhyata* of *Shirahshula* is not described specially. The prognosis of a disease is usually depends upon its severity. *Ardhavdbhedaka* is *sadhya*(Curable).

**CHIKITSA**

In Ayurvedic Classics various procedures had been explained for treating *Ardhavabhedaka*. *Ayurvedic* treatment is not for the disease but it is for the particular condition of disease of the individual.

- The first and foremost principle of treatment is to *Nidana Parivarjana* (avoid etiological factors) which produce headache (*Ardhavabhedaka*).
- The specific line of treatment for *Ardhavabhedaka Shiroroga* as mentioned in different *Ayurvedic* classics are as follows:

**CHARAKA SAMHITA:(C.Si.9/77-78)**

For treatment of this ailment, the therapies to be used are as follows:-

- *Chatuh-sneha* (four types of *Sneha*, viz., *Taila*, *Ghrita*, *Vasa*, *Majja*) to be taken in heavy dose.
- *Siro-virechana* (*Nasya* therapy for the elimination of morbid matter from the head)
- *Kaya-virechana* (*Vaman* and *Virechan* therapy for the elimination of morbid matter from the body).
- *Nadi-sweda* (a type of fomentation therapy).
- *Jirna ghrita* (10 years old ghee).
- *Niruha* and *Anuvasana Vasti* (types of medicated enema).
- *Upanaha* (application of hot poultices).
- *Shirobasti* (keeping medicated oil over the head with the help of a cap with open end).

According to some *Acharyas* consider *Upanaha* as a form of *Shiro-basti* which is called 'Mastiska' according to them, for *Mastiska*, eight *angulas* of cloth, and for *Shiro-basti* twelve *angulas* of cloth should be used.

- *Dahan* (cauterization)
- Therapies prescribed for *Pratishaya* and *Shiro roga*.

**SUSRUTA SAMHITA:** (*Su.Ut.26/31-35*)

Generally line of treatment for *Ardhavabhedaka* also similar as *Suryavarta* such as *Ghrita* sevana, *Ksheeranna bhojana*, etc are indicated. Commentator explained *Nasyakarmadi*- here *adi* implies paste, irrigation, gargling, *Shirobasti* etc.

Along with treatment similar to *Suryavarta* also other proper remedies i.e.,

- **Avapidana Nasya:** *Avapidana* prepared from fruit (seed) of *Shirishmoola*, and *Madana phala*, *vach*, *Manahshila*, *Pippali* etc along with *Madhu* etc
- After the application of *Avapidana* i.e., at the end *Kakolayadi gana* is best for use as nasal drops.

Commentator explained *Anyaccha*-other remedies such as unction, blood-letting, pressed snuff, *Dipika taila* as mentioned under earache etc.

- *Sariva*, *Madhuka*, *Kootha* and *Utpala* macerated in a *Amla* (acidic) liquid added with ghee and oil and applied as *Lepah* (paste) on the head bestows comfort in both (the diseases *Suryaavarta* and *Ardhavabhedaka*).

Commentator explained *Lepah*-this paste should be applied in predominance of *Vata* and *Pitta*. The same treatment may be administered even in headache produced by *kapha*.

- *Siravedha* "*Upnashikelalatyampangayaam*"<sup>[17]</sup> i.e. near nose and in forehead and outer corner of eye is also indicated by *Acharya Sushruta*.

**ASTANGA SANGRAHA:** (*A.S.Ut.28:8*)

Generally line of treatment for *Ardhavabhedaka* also similar as *Vatika shiroroga* such as:

- *Shiroveshtana* with a thick *Utkarika* (poultices region) followed by *Parisheka* of milk medicated with *Dashamula dravyas*.
- *Pinda sveda* or external application of *Lepa*(paste) -*Payasa* prepared from *Dashamula* can implemented. (*A.S. Ut. 28:3*)
- *Nasya shirah Karnapurana*
- *Marsha Nasya* :-In *Shirahshula* (caused by *Vata*) associated with *Pitta* and *Asra*(blood)
- *Snaihika dhuma*

- *Shirobasti*.
- *Dahakarma* (cauterization)-If no success in therapies then *Daha* (cauterisation) should be in *Vataja* and *Shleshmaja*
- Specific remedies for *Ardhavabhedaka* is such as:

### *Nasya*

- Juice of leaves of *Nirgundi* added with scum of ghee and *saindhava*.
- Seeds of *Shirisa*, root of *Apamarga* added with *Bida* should be used for *nasya* or the juice of *Sthira*

### *Lepa*

- Paste of *Sariva Utpala*, *Kustha*, *Madhuka* and *Pippali* added with *Taila* and *Amla* dravyas is used for external application.
- *Prapunnada* macerated with any *Amla dravyas* should be applied over the head(A.H.Ut.24/9)
- “*Ashamyati Dosanubandhamvekshya Pratikuvarat*” If there is no relief by above, then treatment of secondary *Doshas* should be done.

### **ASHTANGA HRIDAYA: (A.H.Ut.24/9)**

- Generally line of treatment for *Ardhavabhedaka* is also similar to *Vatika shiroroga*.
- *Snigdha Nasya* and *Snigdha Dhuma*, *Shirahtarpanam*, *Shravanatarpanam* are helpful.
- *Nasya* of *Ghritha* prepared from butter of *Varunadi Gana Siddha milk*.
- Our *Acharyas* have mentioned *Nasya* Therapy as the master key for all *Urdhavajatrugata vikaras*.

### **Specific Shamanoushadhi for Ardhavabhedaka**

#### ➤ *Kashayam*

- ***Varanadi Kashayam:*** (*Ashtanga Hrudaya*)

*Usage:* Internal

- ***Vidaryadi Kashayam:*** (*Ashtanga Hrudaya*)

*Usage:* Internal

#### ➤ *Ghritha*

- ***Mayura Ghritha:*** (*Charaka* and *Vagbhata*)

*Usage:* Internal

- **Mahamayura Ghrita** : (*Charaka* and *Vagbhata*)

Usage: Nasya, Paana, Abhyanga, Vasti prayoga

- **Varanadi Ghrita** : (*Ashtanga Hrudaya*)

Usage: Internal

➤ **Taila**

- **Rasnadi Taila** : (*Charaka*)

Usage: Nasya

- **Baladya Taila** : (*Charaka*)

Usage: Nasya.

➤ **Single Drugs**

- **Rasna**

Usage: Internal / Externally as *Lepa* can be applied.

- **Tila**

Usage: *Tila* mixed with milk and made into paste and applied over the head.

## DISCUSSION AND CONCLUSION

In the present parlance following conclusion has been drawn

- The balanced nourishment of root nurtures a tree, the considerate caring of *Shirah* (head) grows up the whole body (C.Su.2/3-6). In *Ayurvedic* classics body is divided into six parts viz. head, two upper extremities, trunk and two lower extremities. Amongst them head or “*Shirah*” is considered as *Uttamanga* (supreme) and also it is compared with the sun (C.Si.9/4) because all the *indriyas* (sensory organs) along with *Prana* of a individual resides in *Shirah*(C.Su.17/12) is also a place of *Manasa* (*Ubhayatmaka Indriya*).
- In numbering of the *Shiroroga* though there is a bit of difference of opinion as *Charaka*, *Vagbhata* and *Susruta* have described five, ten and eleven types of *Shiroroga* respectively but ultimate opinion about the *Shirogata roga* is the same, i.e. disease having headache as the cardinal feature.
- As per *Charak Ardhavabhedaka* one among four additional types of *Shiroroga* described in *Siddhithana*. *Susruta* told *Ardhavabhedaka* is one among eleven types of *Shiroroga*<sup>[16]</sup> and their management is described in *Uttaratantra*. But *Acharya Vagbhata* told it comes under *Vataja Shirahshula*<sup>[17]</sup> which is limited to the half of the portion of head.

- In *Brihatrayee Purvaroop* was not explained only described the *Lakshana* of *Ardhavabhedaka* (*Su.Ut.25*) while *Charaka* explained the *Nidan* and *Lakshana* in *Siddhisthan* “*Trimarmiya Adhyaya*” for *Ardhavbhedaka*.
- *Susruta* didn't mentioned about *Nidan* for *Ardhavabhedaka*, but only described the *Lakshana* of *Ardhavabhedaka*(*Su.Ut.25*).*Vagabhatta* did not described about *Nidan* for *Ardhavabhedaka* but he considered the general *Nidan* of *Shiroroga* for the cause of *Ardhavbhedaka* too. Only *Charaka* have described *Samprapti* of *Shiroroga* (*C.Su.17*) and *Ardhavabhedaka*(*Cha. Si. 9/75*).
- *Susruta* and *Vagabhatta* didn't described *Nidan* for *Ardhavbhedaka* due to *Vegasandharan* (suppression of natural bodily urge) while *Acharya Charak* explained *nidan* due to suppression of natural bodily urge i.e. *Kshavathu vega* (*Cha.Su.7/16*).
- *Charaka* considered this disease is because of vitiation of *Vata* or *Vata Kapha* because of its *nidanatmaka* factors aggravates the *Vata dosha* and localized in the *Shiras* that is the *sthana* of the *Kapha dosa*, vitiated *Vata* which again vitiates the *Kapha* leads to *Ardhavabhedaka*. *Acharya Sushruta* considered this disease due to the vitiation of *Tridosha* whereas *Acharya Vagbhatta* opines that this disease is due to the vitiation of *Vata* alone because of its only *Vataja nidanatmaka* factors involved and based on the clinical features only. *Dalhana* told that *Ardhavabhedaka* is due to aggravation of *Vata* and *Pitta*.
- *Rakta* is the main *Dushya* in all types of *Shiroroga* such as *Ardhavbhedaka*
- *Lakshana* such as *Manya ativedana*, *Bhru ativedana*, *Shankha ativedana*, *Karna akshi ativedan*, *Lalate ativedana*,*Shastraraninibham Kuryaatativram*, etc. mentioned only by *Charak* and *Vagbhatta* equally, which is not available in *Sushruta*. *Lakshana Pakshatkupyate Masadvaa* (fortnight or a month), *Swayamev Shamyate* (subsides of its own accord) mentioned only by *Vagbhatta* but *Sushruta* mentioned symptoms *Sambheda*, *Toda*, *Bhrama*, *Shula* suddenly after a *Pakshata* (fortnight) or *Dashahada* (ten days), *Akasmaat*(appearing suddenly).
- *Susruta* mentioned *lakshana Bhrama* for *Ardhavabhedaka*. It is contributed by *Vata*, *Pitta* and *Rajas* (“*Rajah Pittanilat Bhram*”) and involves the *Raktavaha srotas*.
- *Ardhavabhedaka Shirahshula* is most frequently found as its causative factors like *Uccherbhashyat*, *Prajagarana*, *Purva Vata*, *Avashyaya*, *Sheetambu Sewanaat*, *Atyamaddapanen*, *Atimaithun*, *Adhyashana Vegasandharan*, etc. are usually adopted by all human beings due to their busy life style. Other most common causative factors of

*Ardhavabhedaka* are psychogenic which includes *Bashpa* (excessive weeping), *Manastapa*, and *Anxiety* etc. Advancement of modernization, development of industrial phase, business competitions, excessive uses of internet, increase in unemployment are really capable to provide a man status of *Bhaya-Shoka - Trasa* etc. due to which *Ardhavabhedaka* caused by psychological factors is also most frequently observed. So, *Ardhavabhedaka Shirahshula* which is caused by psychogenic factors (*Manasa Nidana*) can be correlated with migraine described in modern science.

- *Ardhavabhedaka* or *Ardhabheda* is a type of *Shiroroga* where severe headache in the half portion of the head is a presenting cardinal feature. *Ardhavabhedaka* named because of its classical symptom i.e. severe pain in the half of the frontal region and due to various similarities in the clinical features it is usually compared with migraine headache. The similarities are as follows:

**Table No. 5: Symptom of *Ardhavabhedaka* Vs migraine is as follows.**

Sl.	The symptom of <i>Ardhavabhedaka</i>	Comparative symptom of migraine
1.	<i>Vyadhi janayanti shiro ardhabhage</i> (affects half of the head)	Mostly headache is unilateral
2.	<i>Pakshath va masaath kupyate</i> (attack in fortnight or in a month)	Episodic in nature
3.	<i>Prakasha asahisunatha</i> (unable to see the light)	Photophobia
4.	<i>Shabda asahisunatha</i> (unable to bare the sound)	Phonophobia
5.	<i>Sirajala Atisphuranam</i>	Pulsating\ throbbing pain

- A migraine is a form of vascular headache. Migraine headache is caused by a combination of vasodilatation (enlargement of blood vessels) and the release of chemicals from nerve fibers that coil around the blood vessels. During a migraine attack, the temporal artery enlarges. Enlargement of the temporal artery stretches the nerves that coil around the artery and cause the nerves to release chemicals. The chemicals cause inflammation, pain, and further enlargement of the artery. The increasing enlargement of the artery magnifies the pain.
- The modern pathology of migraine has been discussed, based on this we see how *Vata*, *Pitta* and *Kapha* can explain migraine.

**Vata** - explains the involvement of the nervous system and also the pain. The symptoms of *Vata* Imbalance are: anxiety, depression, dry skin, constipation, and extreme pain.

**Pitta**- Explains the involvement of the circulatory system i.e. blood and blood vessels and also the biochemical activity taking place during migraine attack. *Pitta* disorders are characterized by the red complexion and eyes, light sensitivity, burning sensation, anger, irritability, and nose bleeds.

**Kapha** - explains the resulting inflammation in the brain tissues due to the interaction of above two entities.

- **Correlation Between Ancient Samprapti And Modern Pathological Aspect**

**Role of Vata: Nerve impulse; Tension**

In the *Samprapti* (pathogenesis) of *Sirahshula*, *Vata* takes important role, which can compare to the nerve impulse and the seat of *Vata* is the CNS. Therefore, *Vata Vyadhi* indirectly indicates the diseases of CNS.

We can co-relate the *Vata* with tension also, because tension means bodily tension and mental tension. Bodily tension means muscle tension i.e. contraction of muscle. The whole muscular system is ready for action. Nerve has the prime role for it. *Vata* have the *Chala Guna* (mobile). Mental tension means high thinking, while also the function of *Vata*. So we can co-relate the *Vata* with tension also.

**Role of Rasa and Rakta**

*Rasa* and *Rakta* which are having the prime role among all *Dhatu* in the pathogenesis (*Samprapti*) of *Shirahshula*. But the importance of the *Rasa-Rakta* complex, which has the function of *Preenana* (nourishment) and *Jeevana* (supplying Prana – oxygen) to the nervous system, should also be taken into consideration. Any disturbance in these two functions can create a disturbance in the function of *Vata*.

**Role of Agnimandya and Ama**

Stress, strain, anxiety leads to *Agnimandya* and produce *Ama* which disturb the digestion process. *Pakvashaya* is stated as the most important seat (*Vishesa Sthana*) of *Vata*.

- From the perspective of *Ayurveda*, migraine headaches are due to a disorder in *Tridosha*. Although it is possible to get headaches from disorders in *Vata*, *Pitta*, or *Kapha*. Migraine frequently occur when systemic *Pitta* moves into the cardiovascular system, circulates, and affects the blood vessels around the brain. The blood vessels dilate due to the hot,

sharp quality of *Pitta*. This, in turn, creates pressure on the nerves, resulting in migraines. We have seen that migraine is caused due to the vitiated three *Doshas*.

- Migraine is the 3rd most prevalent and 7th leading cause of disability worldwide. India, where the prevalence of migraine is unknown, Majority of the drugs employed in modern medicine for migraine are almost limited to suppress the symptoms and repeated and long term use of such drugs is found to cause serious side effects. Therefore, the *Ayurvedic* treatment of this disease is very effective and has no side effect. The principle of treatment is *Nidan parivarjan* (avoid etiological factors), however exact etiology of the disease is unknown. As per *Ayurvedic classics* therapeutics for *Ardhavabhedaka* especially *chatu Snehattamamatra*, *Siro-virechana*, *Kaya-virechana*, *Nadi-sweda*, *Jirna ghrta*, *Niruha* and *Anuvasana Basti*, *Shirobasti*, *Dahan*, *Avapidana nasya*, *Siraveda*, *Nasya*, *shirah Karnapurana*, *Lepa*, etc. whereas migraine consists of three main aspects of treatment: Trigger avoidance, Acute (abortive or symptomatic treatment) control, and pharmacological prevention. Medications are more effective if used earlier in an attack.
- *Charaka* and *Vagbhata* also stated that “*Nayanam Vinashayet*” (eyes get damaged) and “*Shravana Vinashayet*” (ears get damaged) if the progression of the disease takes place in case of no proper management done or the causative factors continue to prevail.<sup>[14,17]</sup> Similarly a repeated and long term use of such drugs is found to cause serious side effects like memory loss, gastro - intestinal disorders, weight gain etc. and tend to be habit forming.
- Our *Acharyas* have mentioned *Nasya* karma as the master key for all *Urdhavajatrugata Vikaras*, used for the treatment purpose on the principle “*Nasa hi sirso dwaram*”.

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