

NASYA AS A THERAPEUTICAL APPROACH IN *ARDHAVABHEDAKA*: A COMPREHENSIVE REVIEW

^{*1}Dr. Sangyasri Negi, ²Prof. Dr. Anil Verma and ³Dr. Preeti Pahwa

¹PG Scholar, Department of *Shalakya Tantra*, Patanjali Bhartiya Ayurvigyan Evam
Anusandhan Sansthan, Haridwar, Uttarakhand, India.

²Professor and HOD, Department of *Shalakya-Tantra*, Patanjali Bhartiya Ayurvigyan Evam
Anusandhan Sansthan, Haridwar, Uttarakhand, India.

³Associate Professor, Department of *Shalakya-Tantra*, Patanjali Bhartiya Ayurvigyan Evam
Anusandhan Sansthan, Haridwar, Uttarakhand, India.

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***Corresponding Author**

Dr. Sangyasri Negi

PG Scholar, Department of
Shalakya Tantra, Patanjali
Bhartiya Ayurvigyan Evam
Anusandhan Sansthan,
Haridwar, Uttarakhand,
India.

ABSTRACT

The *shira* (head) is the most important organ among all the vital organs of body because it resides life along with sense faculties (*gyanendriyas*). Various eminent *Acharyas* have mentioned *Ardhavyabhedaka* as one of the shiroroga. It is a chronic condition that affects a large number of people and has varied degrees of severity. According to *Acharya Sushruta*, symptoms of *Ardhavyabhedaka* are *Bheda* (severe boring pain), *Toda* (pricking pain), *Bhrama* (giddiness), *Shoola* (piercing pain). These symptoms occur suddenly or at an interval of 10 or 15 days. The chaotic lifestyle, faulty food habits, reduced physical activity, over exertion at work, subjection to various environmental changes, increased screen time and over exposure to radiations due to scientific advancement in technology, creates a stressful never ending vicious cycle leading to major lifestyle disorders. According to modern science *Ardhavyabhedaka* can be correlated with Migraine. It is a chronic, debilitating neurological

disorder marked by severe, recurrent headaches and associated symptoms such as nausea, vomiting, photophobia, and phonophobia. It poses significant challenges in conventional medical management. Traditional Ayurvedic medicine offers a complementary approach to migraine management, with *Nasya* therapy emerging as a notable treatment modality. *Nasya* involves administration of medicated oils or powders through the nasal passages, reducing

dosha aggravation, and clearing accumulated toxins from the head and sinuses. Thus, aiming to restore the equilibrium to the affected *doshas* and plays a prominent role alleviating the symptoms of *Ardhavabhedaka*.

KEYWORDS: *Nasya, Ardhavabhedhaka, Shiroroga, Shirashoola, Migraine.*

INTRODUCTION

Ayurveda, often referred to as the “science of life”, is one of the world’s oldest holistic healing systems. It emphasizes on the balance between the mind, body and spirit to promote overall health & well-being. Shalakya-Tantra, a specialized branch of Ayurveda, offers a unique perspective and therapeutic approach for managing supraclavicular diseases (*urdhwajatrugata rogas*) ie diseases pertaining to head, ear, nose, throat and eyes. Among which, Shirorogas have been given at most importance due to *shirah* (head) being the most vital part of body and the seat of all five sense organs. It is also referred as the “*Uttamanga*”.^[1] In context of *shirorogas*, Acharaya Sushruta has mentioned 11 types of *shiroroga*.^[2] *Ardhavabhedaka* is one of the *shiroroga* which exhibit severe excruciating pain in one half of the head, occurring periodically once in three, five^[3], ten^[4], fifteen days, a month or randomly at any time^[5] due to vitiation of *doshas*. Its causative factors includes intake of excessive *ruksha ahara*, *Adhayashan*, *Purva vayu sevana*, *Atishram* and *Vegadharan*. It can be correlated with migraine on the basis of symptoms and aetiology.

Headaches have plagued mankind from the dawn of civilization. Migraine is one of most prevalent causes of recurrent headaches. The name migraine comes from Greek word “*hemicranias*” which means half of head since, the pain of migraine occurs on one side of head. According to Harrison’s principles of internal medicine migraine is benign and reoccurring syndrome of headache, nausea, vomiting & other symptom of neurological dysfunction in varying admixtures like photophobia and phonophobia (sensitivity to light & sound respectively).^[6] As per the World Health Organization's data, migraine is the third most common disease in the world with the global prevalence of 14.7% which is around 1 in 7 people.^[7]

Women are 3 times more affected than men. It is categorized as migraine with or without aura. Aura refers to a focal neurological disturbance manifesting as visual aura (flashing lights or scintillating spots that may cross visual field over minutes, scotoma), sensory or language aura. Aura producing migraines are considered as classic migraine while common

migraines lack auras and they account for around 75% of all migraines. The pathophysiology of migraines involves a multifaceted interplay of genetic, environmental, and neurobiological factors. The condition is commonly associated with disturbances in brain neurotransmission, including altered levels of serotonin and other neuropeptides, Migraine attacks are often triggered by various factors such as stress, hormonal changes, specific foods, and environmental stimuli, although individual triggers can vary widely.

With the recent advancement of modern medical science, many drugs are being researched and used to alleviate the disease but they only assuage the symptoms temporarily and the underlying pathology goes on progressively to worsen the condition. Over-the-counter medications are used to treat acute migraines whereas a chronic migraine is treated with medications like Aspirin, Ibuprofen, Diclofenac, Ergots and rejuvenating therapies like meditation, relaxation. Ayurveda being entitled as the complementary and alternative medicine system, ensures treatment without any adverse effects in disorders such as migraine. Various eminent *Acharyas* have mentioned *Nasya* as a therapeutical procedure for the management of *Ardhavabhedaka*. Instillation of the medicine through nasal route is known as *Nasya*. It is the most important therapy as it is used for *Urdhvajatrugata rogas*.

AIM: To review role of *Nasayakarma* in *Ardhavbhedaka*.

OBJECTIVE

1. To review literature of *Ardhavbhedaka*.
2. To review role of *Nasayakarma* in *Ardhavbhedaka*.

METHODOLOGY

Review of *Ardhavabhedaka*

Ardhavabhedaka comprises of 2 components *Ardha* means half, *Ava* stands for bad prognosis & *Bhedaka* means boring pain. Thus, literal meaning of *Ardhavabhedaka* is boring pain in one half of the head.

Acharya Sushruta explained *Ardhavabhedaka* as severe unilateral headache associated with giddiness, boring and pricking pain which reoccur suddenly and at the interval of 10 or 15 days.^[8]

Involvement of *doshas* in *Ardhavabhedaka*

- *Acharya Charak*- *Vata* or *Vata-Kapha*^[9]

- Acharya Sushruta- Tridosha^[8]
 - Acharya Vagbhata- Vata^[10]
- Acharya Chakrapani stated Ardhavabhedaka as “Ardha Mastaka Vedana”.

Nidana

Nidana/hetu refers to causative factors responsible for manifestation of the disease. Acharya Charak^[11] referred to general nidana of Shirorog along with distinct nidana for Ardhavabhedak Acharya Vagbhata^[12] & Yogratnakar^[13] have stated only general nidana of Shiroroga. It can be classified into 3 parts- Aharaja nidana, Viharaj nidana, Mansik nidana.

Table no 1: Aharaja Nidana.

S. No.	Aharaja Nidana	Ch.S.	A.H.	Y.R.
1.	Rukshasahana (dry, dessicated food)	+	-	-
2.	Atyashana (to eat excessively)	+	-	-
3.	Adhyashana (taking meal before digestion of previous meal)	+	-	-
4.	Madya sevana (alcohol intake)	+	+	+
5.	Guru ahara (heavy meal)	+	-	-
6.	Amla ahara (sour food)	+	-	-
7.	Harita dravya sevana (rhizomes)	+	-	-
8.	Atisheeta ambusevana (intake of excessive cold water)	+	+	+
9.	Dushta ama (vitiated ama)	+	+	+

Table no 2: Vihraja Nidana.

S.No.	Viharaja Nidana	Ch.S.	A.H.	Y.R.
1.	Vegavarodha (suppression of natural urges)	+	+	+
2.	Divaswapna (sleeping during day)	+	+	+
3.	Ratrijagrana (vigil during night)	+	+	+
4.	Uchcha bhashya (speaking loudly)	+	+	+
5.	Avashyaya (exposure to dew)	+	+	+
6.	Purvivata (exposure to eastern wind)	+	-	-
7.	Atimaitihuna (excess sexual indulgence)	+	+	+
8.	Asatmya gandha (intolerable smell)	+	+	+
9.	Aaghata (head injury)	+	-	-
10.	Raja (dust exposure)	+	-	-
11.	Hima (snow exposure)	+	-	-
12.	Dhuma (smoke exposure)	+	+	+
13.	Atapa (exposure to sun & heat)	+	+	+
14.	Shiroabhighata (head injury)	+	-	-
15.	Ashruvega nigraha (suppression of tears)	+	+	+
16.	Ayas (physical over exertion)	+	-	-
17.	Vyayam (exercise)	+	-	-
18.	Meghagama (advent of cloud)	+	-	-

19.	<i>Desha viparyaya</i> (regimen contrary to locality)	+	-	-
20.	<i>Kala viparyaya</i> (regimen opposite to season)	+	-	-
21.	<i>Utsweda</i> (excessive sudation)	-	+	-
22.	<i>Krimi dosha</i> (worm infestation)	-	+	+
23.	<i>Upadhana dwesha</i> (avoidance of pillow)	-	+	+
24.	<i>Abhyanga dwesha</i> (aversion of massage)	-	+	+
25.	<i>Prathathekshana</i> (continuously looking down)	-	+	+
26.	<i>Utsedha</i> (swelling)	-	-	+

Table no 3: *Mansik Nidana*.

S.No.	Mansika nidana	Ch.S.	A.H.	Y.R.
1.	<i>Manasa santapa</i> (mental stress)	+	-	-
2.	<i>Rodana</i> (lamentation)	+	+	+

Purvarupa of Ardhavabhedak

In case of *Ardhavabhedak*, there are no certain *poorvarupa* mentioned in any *Ayurvedic* literature.

Rupa of Ardhavabhedaka

- According to *Acharya Charak*^[14], there is an extreme piercing type of pain in half side of the head, affecting particularly *Manya* (neck), *Bhru* (eye brows), *Shankh* (temporal region), *Karna* (ear), *Akshi* (eye) and *Lalata* (forehead).
- According to *Acharya Sushruta*^[9], there is severe unilateral headache associated with giddiness, boring and pricking pain which reoccur suddenly and at the interval of 10 & 15 days.
- In accordance to *Acharya Vagbhatta*^[15], Pain occurs in *Ghata* (occipital region according to *Indu* and parietal region according to *Arundutta*) and all the *Shirogata Sandhis*. He has also emphasized on its paroxysmal nature and said that it comes in every *Paksha* (fortnightly) or *Masa* (Month). The headache subsides by itself.
- *Acharya Chakrapani* stated *Ardhavabhedaka* as “*Ardha Mastaka Vedana*”.

Samprapti- Indulgence in *aharaj* and *viharaj* *nidanas* of *Ardhavabhedaka* vitiates *Vata* alone or in association with *kapha* or *tridoshas*. In *Sanchaya Avastha* - Vitiating of *doshas* results in either *dosha dushti*, *agni dushti* and *srotodushti* occurs independent or simultaneously. *Dosha dushti* can be either *sharirika* or *mansika dosha dushti* similarly, *agni dushti* leads to *agnimandya*.

In *Prakopa Avastha*- Further *sharirika* or *mansika dosha dusti* and *agnimandya* leads to the condition of *ama utpatti* which cause *srotavarodha* (blocking of channels). During *Prasara*

Avastha- Due to *chala guna of vata* its cause the upward movement of vitiated *doshas* towards the *kha-vaigunya* created in *urdvabhag*. *Sthana sansharya* - The *Urdhvagata Doshas* get established in their seat in *Shira*. In *Vyakta Avastha*- The symptoms of disease develop. Severe pain in half side of the head, affecting particularly *Manya, Bhru, Shankh, Karna, Akshi and Lalata*. In *Bheda Avastha*- If the disease is not treated in time due to any reason it may leads to various complications in *Netra* and *Karna*.

Samprapti ghataka

- *Dosha- Tridoshaja, Vata-kaphaja or Vataja*
- *Dushya- Rasa, Rakta*
- *Srotas- Rasavaha, Raktavaha*
- *Srotodushti- Sanga, Vimargagamana*
- *Agnimandya- Jatharagnimandya, Rakta Dhatvagnimandya.*
- *Udbhava sthan- Amashaya, Pakvashaya*
- *Adhisthan- Shira*
- *Vyaktisthana- Shira, Manya, Bhru, Shankha, Karna, Akshi, Lalata*

Sadhya-Asadhyata- The *Shirahshoola*, having chronicity of less than one year and is devoid of any major complication, can be termed as *Sukhasadhya*. While, chronic *Shiroroga* with high chances of relapse, and resulting in no improvement even after treatment is considered as *Asadhya*.

Upadrvas^[16]- *Nayan Vinasha* (loss of visual capability) and *Shrotra Vinasha* (destruction or loss of hearing capacity)

Chikitsa – The management of disease is mainly based on the principle of *Samprapti vighatana*. The fundamental treatment principle of *Ayurveda* is *Nidan parivarjan* which means restraining from unhealthy food habits (*Aharaja hetu*) and lifestyle (*Viharaj hetu*).

Samshodhan Chikitisa- Shirovirechan or Nasya karma, Virechan, Basti are advised as the important treatment modalities in treating *Shiroroga*. *Samshamana chikitisa* -Various oral medications like *Shirahshoolavajra rasa, Danti pravala yoga, Pathyadi Shadanga kwath. Vishistha Chikitsa* for *Ardhavabhedaka* is as follows-

- According to *Acharya Sushruta*^[17]- *Avapedana nasya* with *Shirishmoola* and *phala, Vacha* and *pippali, Yastimadhu churna* with *madhu*. He also indicated that after above

treatment at last *nasya* with *Madhuradi siddha ghrita* should be given to get more benefits.

➤ *Acharya Charak*^[18]

- Intake of *Chatur Sneha* (*ghrita, taila, vasa, majja*) in *uttam matra*.
 - *Shirovirechana* (*nasya*) and *Kaya virechana*
 - *Nadi sweda* and *purana ghrita paan*.
 - *Niruha & anuvasana basti*
 - *Upnaha & shirobasti*
 - *Daha karma* (*Agnikarma*)
- According to *Acharya Vagbhata*^[19]- *Nasya* with *Shrishbeeja, Apamarga, Vida lavana, Shalparni swaras*

Pathya- Apathya^[20]

The *pathya* and *apathya* mentioned for *Shiroroga* in general is also considered for *Ardhavabhedaka*.

Pathya- *Shali, Shashtikshali, Dhanyamansa, Sanyab, Ghritapura, Patolam, Shigru, Vastuka, Karvellak, Amra* (mango), *Aamlaki, Dadima, Matulunga* (lemon), *Draksha* (dried grape), *Narikela* (coconut), *Swedana* (heating), *Nasya, Dhumpana, Virechana* (purgative), *Lepa, Vamana*, (vomiting), *Langhana* (fasting), *Shirobasti, Raktamokshana, Agnikarma* (cautery), *Upanaha*.

Apathya- Impure water, *Virudhdha ahara*, Water of the rivers of *sahyadri* and *vindhyas*, *Anjana* (coryllium application), *Dantadhavanam* (teeth-brushing), *Divaswapna* (sleeping during day), *Vegadharana* (Holding of the urges).

Definition of *Nasya*

The procedure of administering medicine through nasal orifice is known as *Nasya*. *Nasya Karma* is one among the *Panchkarma* therapies. The nasal orifices are believed to be the entrance of the head. It is the nearest root for any kind of pathology in *Urdhwanga*, the disease related to head is the best treated by this procedure.

Table no 4: Classification of Nasya according to different Acharyas.

S.No	Acharya	Types	Classification
1.	Charak ^[21]	3	Acc to mode of action- <i>Rechana, Tarpana, Shamana</i>
		5	Acc to method of administration- <i>Navana, Avppeda, Dhmapana, Dhooma, Pratimarsha</i>
		7	Acc to part of the drug used – <i>Patra, Phala, Phuspa, Twak, Kand, Moola, Niryasa</i>
2.	Sushruta ^[22]	2	<i>Shirovirechan, Snehana</i>
		5	<i>Nasya, Pratimarsha, Shirovirechan, Aypeeda, Pradhaman</i>
3.	Vagbhata ^[23]	3	Acc to mode of action- <i>Virechan, Brimhana, Shaman</i>
		2	Acc to method of administration – <i>Marsh and Pratimarsha</i>
4.	Sharangdhar	2	<i>Shirovirechan, Brahana</i>

Time- According to Acharya Charaka^[24], Nasya is given in *Sharad, Vasant and Pravritta ritu*. However, in any emergency condition it can be given in any *ritu* by providing proper conditions like in winters it can be given in warm place whereas in summer it should be given in cooler place. During *Greeshma ritu & Sheeta ritu*, it should be administered in *Poorvahna* (morning) and *Aparahna* (evening) respectively. In *Varsha ritu*, it should be done on a bright sunny day when the sky is devoid of any clouds.

Table no. 5: Nasya Matra.

Type of Nasya	Uttam Matra	Madhyam Matra	Hriswa Matra
<i>Snehana nasya</i>	32 drops in each nostril	16 drops in each nostril	8 drops in each nostril
<i>Shodhananasya</i>	8 drops	6 drops	4 drops
<i>Avapeeda nasya</i>	8 drops	6 drops	4 drops
<i>Marsha nasya</i>	10 drops	8 drops	6 drops
<i>Pratimarsha nasya</i>	2 drops in each nostril		

Drugs used in Shirovirechana

Apamarga beeja, Pippali, Mareecha, Shigru, Sarshapa, Ajaaji, Ela, Shireesh beeja, Haridra, Lahsuna, Jyotishmati, Go ghrta. These drugs are widely used for *Nasya karma*.

Indications- *Shirogaurava* (heaviness in head), *Shiroshoola* (headache), *Peenasa* (rhinitis), *Ardhavabhedaka* (migraine), *Shirogata Krimi*, *Apasmara* (epilepsy), *Ghraananaasha* (derangement of smell sensation), *Manyastambha* (stiffness of neck), *Galashundika* (uvulitis), *Shaaluka* (tonsillitis), *Swarbheda* (hoarsness of voice), *Upajihivka*, *Galaganda* (goitre), *Timira*, *Vyanga* (blackish discoloration of facial skin).

Mode of Action of Nasya karma

According to *Acharya Charaka*, nose is the gateway of head. The drug administered through nostrils reaches *Shringataka marma* by *Nasa srota* and spreads in *murdha* (brain) by taking route of *Netra* (eye), *Shrotra* (ear), *Kantha* (throat), *Siramukhas* and scrapes the morbid *Doshas* in supraclavicular region and extracts them from *Uttamanga* (head).^[25] *Acharya Sushruta* defined *Shringataka marma* as a *Sira marma* formed by the union of *Siras* (blood vessels) supplying to nose, ear, eye and tongue.^[26]

Nasal route is easily accessible, convenient as well as highly vascularised which provides rapid absorption of drug into the systemic circulation and also avoids the hepatic first pass elimination. The nose is connected through vascular system, nerve plexus of olfactory nerve and ophthalmic & maxillary branches of trigeminal nerve.

The pharmacodynamics of *Nasya* can according to modern view can be explained as follows.

Vascular pathway- Rich vascular plexus along with head lowering position during *nasya karma* allows pooling of nasal venous blood into the facial vein as it is devoid of any valves and it communicates freely with the intracranial circulation, not only at its commencement but also by the supra orbital veins which are connected with the ophthalmic vein, a tributary of deep facial vein which communicates with cavernous sinus through pterygoid plexus.^[27]

Neurological pathway- The peripheral olfactory nerves are chemoreceptors in nature and are connected to higher centres of brain i.e. limbic system, amygdaloid complex, hypothalamus etc. Thus, the drugs administered through nose stimulates the higher centers and helps in regulating the functions of nervous and endocrine system.^[28]

There are two pathways via which drugs diffuse into the nasal mucosa. The Paracellular route which is slow & passive route of transport and is responsible for aqueous transport. Lipophilic medicines are actively transported via the transcellular pathway. Since lipid-based medications facilitate quicker drug absorption, the majority of *Kalpas* used for *Nasya karma* have lipid bases. The *purva karma* includes *Abhyanga* which leads to *dosha Mriduta* and increased blood circulation, *Swedana* causes *Vilayana* (liquefaction) of accumulated *doshas*. As *Paschat karma*, *kaval* is advised which helps in draining out the remanant *utklishta doshas* thus increasing the efficacy of the treatment.

CONCLUSION

Migraine is a prevalent and complex neurological disorder that can significantly impair an individual's quality of life. Ayurvedic protocol can be integrated into a comprehensive treatment plan, offering potential benefits for patients suffering from disease of supraclavicular region.

Nasya is a promising alternative route of drug administration for local, systemic and central nervous system action. Hence, emphasis should be placed on the need for the goal of integrating *Nasya* into a comprehensive, patient-centered approach in management of *Ardhavabhedaka*. It can help in reducing the frequency, intensity, and duration of headaches & contributing in overall relief in symptoms and improved quality of life. The therapeutic benefits are attributed to its ability to mitigate and eliminate the aggravated *doshas* to promote overall well-being.

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