



RESEARCH ARTICLE

A COMPARATIVE STUDY OF SHARKARA YUKT NARIKEL JALA NASYA AND
GOGHRIT NASYA IN THE MANAGEMENT OF ARDHAVBHEDAK

¹Dr. Shende Krushnadev, ²Dr. Nikhil Urunkar, ³Dr. Vinay Chavan,
⁴Dr. Mayur V. Shiralkar and ⁵Dr. Hridaynath Lad

¹Department of Kayachikitsa Dr. D.Y. Patil Ayurved College, Pune, M.S. India

²Department of Kayachikitsa, LRP Ayurved Medical College, Urun, Islampur, Dist-Sangali, M.S. India

³Department of Panchakarma, LRP Ayurved Medical College, Urun, Islampur, Dist-Sangali, M.S. India

⁴Department of Shalaky Tantra, Dr. D.Y. Patil College of Ayurved, Pimpri, Pune, M.S. India

⁵Department of Stree Rog and Prasutitantra, Dr. D.Y. Patil Ayurved College, Pune, M.S. India

ARTICLE INFO

Article History:

Received 02nd May, 2015

Received in revised form

08th June, 2015

Accepted 27th July, 2015

Published online 31st August, 2015

Key words:

Mesocolic hernia,
Internal hernia,
Intestinal Obstruction,
Intestinal perforation.

ABSTRACT

Aim: To compare the efficacy of Sharkara Yukt Narikel Jala Nasya and Goghrit Nasya in Ardhavbhedak

Objective: 1. To study the efficacy of Sharkara Yukt Narikel Jala Nasya in Ardhavbhedak.

2. To study the efficacy of Goghrit Nasya in Ardhavbhedak.

3. To compare the efficacy of Sharkara Yukt Narikel Jala Nasya and Goghrit Nasya in Ardhavbhedak.

4. To assess the disease according to etiological factors as per Ayurveda and modern text.

5. To assess the efficacy of these two drugs in view of symptoms of patient

Methods: Comparative Study

After complete examination all the patients was randomly divided into two groups

I. Group A In this group 30 patients were treated with Sharkara Yukt Narikel Jala Nasya.

II. Group B In this group 30 patients were treated with Goghrit Nasya.

Assessment Criteria: Subjective Parameters: 1. Ardh Shirovedana (Unilateral Headache) Distribution of pain in Ardhavbhedak. 5 sites where pain is present are mentioned in Ayurvedic text. They are manya, bhru, shankha, akshi and lalat. The presence of pain in each site will be given a particular score and thus total score before treatment will be noted. Similarly, after treatment depending upon presence of pain in number of sites, total score will be calculated.

2. Prakasahasatva (photophobia)

3. Bhrama (vertigo)

4. Shiropateev (Lightheadness)

5. Phonophobia

6. Nausea

2) Objective Parameters: 1. Severity of headache, 2. Frequency of headache, 3. Duration of headache

Duration: Total 28 days. Nasya was given for 7 days followed by a gap of 7 days. Two such sitting was given to all the patients.

Results: Comparing all the symptoms before and after treatment Goghrita Nasya is better than the Efficacy of Sharkara Yukt Narikel Jala Nasya in the treatment of Ardhavbhedak

Statistical Analysis: The Statistical Analysis reveals that In Ardhavbhedak the percentage wise efficacy of treatment with Goghrit Nasya is better than the efficacy of treatment with Sharkara Yukt Narikel Jala Nasya.

Conclusion: Final conclusion is the percentage wise efficacy of Goghrit Nasya in Ardhavbhedak is better than that of efficacy of Sharkara Yukt Narikel Jala Nasya and its proven very much beneficial to reduce the intensity of symptoms on the statistical analysis

Copyright © 2015 Dr. Shende Krushnadev et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Shende Krushnadev, Dr. Nikhil Urunkar, Dr. Vinay Chavan, Dr. Mayur V. Shiralkar and Dr. Hridaynath Lad, 2015. "A comparative study of sharkara yukt narikel jala nasya and goghrit nasya in the management of ardhavbhedak", *International Journal of Current Research*, 7, (8), 19599-19612.

INTRODUCTION

Ayurveda is a science of life with its sole aim to provide health to the mankind. Ayurveda helps in promoting the society to a disease free and healthy environment. It is to be made clear

that health according to Ayurveda is not mere absence of disease but the well being of all the three faculties that are the Satva, Atma and Sharira. It conceives and describes the basic and applied aspects of life process. Ayurveda not only treats the disease but it also believes that maintenance of healthy person's well-being and longevity is also important. According to Ayurveda there are three essential elements Vata, Pitta and Kapha, which constitutes the "Tridosha" and are responsible

*Corresponding author: Dr. Shende Krushnadev

Department of Kayachikitsa Dr. D.Y. Patil Ayurved College, Pune, M.S. India

for the origin of body and also regulates the physiology of the body. The imbalance of Tridosha leads to the 'Vyadhi' i.e. disease. The prime object of Ayurveda is to counteract the imbalance of Tridosha, which only can be achieved by suitable administration of Ahara as well as Aushadhi Kalpana. Ardhavbhedak is one such disease where, when episode of Ardhavbhedak occurs person feels helpless and handicap. According to Acharya Vagbhat Ardhavbhedak is predominated by Vata dosha and Ardha shiro vedana i.e unilateral headache is seen as the prime lakshana. Ayurveda has given prime importance to Shirah, considering it as one of the three principal vital organs of the body where the Prana i.e. life resides. Charaka has considered Shirah as the supreme, important and major part of the body which is known as the Uttamanga. Shirah has been compared with the Sun. Charaka explains that all the sense organs and the channels carrying the sensory and vital impulses from the Shirah are like the rays from the Sun.

According to many previous researchers Ardhavbhedak is also correlated with Migraine. According to modern science, Migraine is the most common cause of vascular headache. Almost all headaches are susceptible to exacerbate by psychological stresses but most common are vascular headaches and Tension headache. A useful definition of migraine is a benign and recurrent syndrome of headache, nausea, photophobia and other symptoms of neurological dysfunctions in varying admixtures. Migraine can be a challenging disease to diagnose. It is a clinical diagnosis based on symptoms that are subjective and variable as per patient. Despite a decade of progress, migraine headache remains prevalent, disabling, often undiagnosed, and undertreated. Migraines affect approximately 15% of the population, with 6% being men and approximately 18% being women. Analgesic overuse, insomnia, depression, and anxiety are often comorbid with migraine headaches. Research has demonstrated a connection between genetic influence with neuronal and vascular imbalances in the central nervous system, leading to the emergence of the condition.

Ayurveda has the Nasya therapy as master key for Shiroroga, method to rejuvenate the body and mind and to alleviate pain and stress. Medicines administered through the nose go into the head and expel the vitiated Doshas. Here in this study the drugs selected are Goghrit and Sharkara Yukt Narikel Jala. There is a specific indication of Chatu- Sneha administered orally or Nasya in the management of Shiroroga. Goghrit is having Vatanashaka, pittanashaka as well as kaphanashka i.e. pain relieving properties whereas Sharkara and Narikel Jala have Vatanashaka and pittanashaka and bruhan properties. Current treatment options include abortive and preventative therapies. The goal of therapy is to reduce frequency and severity of attacks, limiting the impact of migraine on activities of daily living. The study was concentrated to find out the better Nasya dravya for the treatment of Ardhavbhedak which can also be used in day today practice and in regular life.

Aim

To compare the efficacy of Sharkara Yukt Narikel Jala Nasya and Goghrit Nasya in Ardhavbhedak.

Objectives

1. To study the efficacy of Sharkara Yukt Narikel Jala Nasya in Ardhavbhedak.
2. To study the efficacy of Goghrit Nasya in Ardhavbhedak.
3. To compare the efficacy of Sharkara Yukt Narikel Jala Nasya and Goghrit Nasya in Ardhavbhedak.
4. To assess the disease according to etiological factors as per Ayurveda and modern text.
5. To assess the efficacy of these two drugs in view of symptoms of patient

MATERIALS

1) Selection of Patients

Patients were selected with lakshnas of Ardhavbhedak irrespective of their age sex religion etc. Patients were then subjected to detailed clinical history on the basis of specially prepared case Performa. Selection of patients is done randomly as per rules of statistics. For present study, patients are selected from-

- 1) Panchakarma OPD
- 2) Kayachikista and Panchakarma IPD
- 3) Volunteers from college and hospital premises
- 4) Patients in medical camps organized by college & hospital authorities.

Inclusion Criteria

1. Patients showing classical lakshnas of Ardhavbhedak were selected for the study.
2. Patients of age group above 16 yrs. and below 60 yrs. Was selected for the study.
3. Patients of both sex of different socioeconomic group were selected.

Clinical history of patients was taken in special prepared case sheet Performa.

Exclusion Criteria

- 1) A Patient of Ardhavbhedak who was taking other treatment was excluded.
- 2) Patients who were suffering from Hypertension, COPD and other chronic disease.
- 3) Patients who were suffering from secondary headaches like meningitis, brain tumor, encephalitis, cervical spondylitis, refractive errors & glaucoma.
- 4) Patients who were suffering from sinusitis are excluded from study.
- 5) Nasya ayogy people were excluded from study.

2) Selection of Drugs

1) Sharkara Yukt Narikel Jala Nasya

Sharkara: 1 kola (6gms)

Pakva Narikel Jala: 1/2 pal (20ml)

The drug was prepared as per need.

2) Goghrit Nasya

Authentication & standardization of Sharkara, Narikel Jala, Goghrit and prepared drug was done at Government approved laboratory.

METHODS

Details of study subject

After complete examination all the patients was randomly divided into two groups –

I. Group A In this group 30 patients were treated with Sharkara Yukt Narikel Jala Nasya.

II. Group B In this group 30 patients were treated with Goghrit Nasya.

Criteria of assessment

1) Subjective Parameters

1. Ardh Shirovedana (Unilateral Headache) Distribution of pain in Ardhabhedak. 5 sites where pain is present are mentioned in Ayurvedic text. They are manya, bhru, shankha, akshi and lalat. The presence of pain in each site will be given a particular score and thus total score before treatment will be noted. Similarly, after treatment depending upon presence of pain in number of sites, total score will be calculated.

2. Prakasasahatva (photophobia)

3. Bhrama (vertigo)

4. Shiropateev (Lightheadness)

5. Phonophobia

6. Nausea

2) Objective Parameters

1. Severity of headache
2. Frequency of headache
3. Duration of headache

Parameters for assessment

Grading and scoring

The improvement in the patients was assessed by mainly on the basis of relief in the cardinal symptoms of the disease. To assess the effect of therapy objectively, all the sign and symptoms will be given scoring pattern depending upon their severity as below: Gradation and scale for sign & Symptoms

0 = No symptoms

1 = Mild (can do his/her work)

2 = Moderate (Forced to stop work)

3 = Severe (Forced to take rest)

4 = Excruciating (Force to take medicine)

1) Severity of Headache

National Institutes of Health Warren Grant Magnuson Clinical Center Pain Intensity Instrument

Numeric Rating Scale

Indications: Adults and children (> 9 years old) in all patient care settings who are able to use Numbers to rate the intensity of their pain.

Instructions:

1. The patient is asked any one of the following questions: What number would you give your pain right now? What number on a 0 to 10 scale would you give your pain when it is the worst that it gets and when it is the best that it gets? At what number is the pain at an acceptable level for you?

2. When the explanation suggested in #1 above is not sufficient for the patient, it is sometimes Helpful to further explain or conceptualize the Numeric Rating Scale in the following manner:

0 = No Pain

1-3 = Mild Pain (nagging, annoying, interfering little with ADLs)

4-6 = Moderate Pain (interferes significantly with ADLs)

7-10 = Severe Pain (disabling; unable to perform ADLs)

3. The interdisciplinary team in collaboration with the patient/family (if appropriate); can determine appropriate interventions in response to Numeric Pain Ratings. Reference- McCaffery, M., & Beebe, A. (1993). Pain: Clinical Manual for Nursing Practice. Baltimore: V.V.Mos by Company.

2) Frequency of Headache: Assessed in term of (frequency/fortnight)

0 = Nil

1 = Once/fortnight

2 = Twice/fortnight

3 = Thrice/fortnight

4 = More than thrice/fortnight

3) Duration of Headache: (Assessed in term of hours/day)

0 = Nil

1 = 1-3 hours/day

2 = 3-6 hours/day

3 = 6-12 hours/day

4 = More than 12 hours/day

Types of study

Clinical Study

Period of Study

Total 28 days including gap.

Procedure for data collection

Case paper was prepared & observations were noted.

Standard Operating Procedure

For both, Group A & Group B

Purva Karma

1. Prior to Nasya Snehan was done on face, forehead, ears, and neck with Tila Tail for approximately for 10 minutes.
2. Sthanik Mrudu Swedan was done.

Pradhan Karma

1. Position Supine position with slightly extended neck.
2. Drug will be instilled into one nostril while other nostril kept closed the same process is carried out in other nostril also.
3. For administration of drug dropper was used. Paschat Karma – Prayogik Dhumpan was given.

Route of administration- Nasal

Matra- 0.4 ml (8 drops) in each nostril

Kaal Pratah Kaal- 8 to 10 am (Morning)

Purva Karma- Sthanik Snehan with til tail

Sthanik Mrudu Swedan

Pradhan Karma As mentioned above

Paschat Karma Dhumpan

Duration

Total 28 days. Nasya was given for 7 days followed by a gap of 7 days. Two such sitting was given to all the patients.

Observation

Table 5.1. Age wise distribution of 60 patients of ARDHAVBHEDAK

Age[Years]	No. of Patients		Total	%
	Group A	Group B		
16-20	3	3	6	10.00
21-30	11	14	25	41.66
31-40	11	9	20	33.33
41- 50	4	3	7	11.66
51-60	1	1	2	3.33

Maximum no. of patients i.e. 41.66% were from the age group of 21 – 30 years, 33.33% of patients were from age group 31-40 years , 11.66% of patients were from age group of 41-50 years & 3.33% of patients were from age group of 51-60 Years.

Table 5.2. Sex wise distribution of 60 patients of ARDHAVBHEDAK

Sex	No. of Patients		Total	%
	Group A	Group B		
Male	12	11	23	38.33
Female	18	19	37	61.66

Maximum no. of patients registered i.e. 61.66% were female & 38.33% were male.

Table 5.3. Religion wise distribution of 60 patients of ARDHAVBHEDAK

Religion	No. of Patients		Total	%
	Group A	Group B		
Hindu	28	26	54	90
Muslim	0	2	2	3.33
OTHER	2	2	4	6.66

Maximum no. of patients i.e. 90% was Hindu, 3.33% was Muslim & 6.66% was other religion

Table 5.4. Education wise distribution of 60 patients of ARDHAVBHEDAK

Education	No. of Patients		Total	%
	Group A	Group B		
Uneducated	0	0	0	0.00
Primary	4	1	5	8.33
H. secondary	10	12	22	36.66
Graduate	16	17	33	55.00

Maximum no. of patients i.e. 55.00% were graduate, 36.66% patients were higher secondary group, 8.33% patients were observed in primary educated group, 0.00% were uneducated.

Table 5.5. Occupation wise distribution of 60 patients of ARDHAVBHEDAK

Occupation	No. of Patients		Total	%
	Group A	Group B		
Service Man	7	10	17	28.33
Farmer	5	2	7	11.66
Student	5	7	12	20.00
House Wife	9	8	17	28.33
Self employed	4	3	7	11.66

Maximum no. of patients i.e. 28.66% were housewives, 28.66% in serviceman, 11.66% were farmer, 11.66% were self-employed & 20% patients were student

Table 5.6. Marital status wise distribution of 60 patients of ARDHAVBHEDAK

Marital	No. of Patients		Total	%
	Group A	Group B		
Married	26	22	48	80.00
Unmarried	4	8	12	20.00

Maximum number of patients i.e. 80% was married and 20% were unmarried.

Table 5.7. Socio-Economic status wise distribution of 60 patients of ARDHAVBHEDAK

Socio-	No. of Patients		Total	%
	Group A	Group B		
Lower	3	2	5	8.33
Middle	23	26	49	81.66
Higher	4	2	6	10

Maximum no. of patients i.e. 81.33% were found in middle class, 10% patients were from higher class & only 8.33% patients were from lower class.

Table 5.8. Desha wise distribution of 60 patients of ARDHAVBHEDAK

Desha	No. of Patients		Total	%
	Group A	Group B		
Anup	0	0	0	0
Jangam	0	0	0	0
Sadharan	30	30	60	100

All patients were found from Sadharan desh.

Table 5.9. Prakruti wise distribution of 60 patients of ARDHAVBHEDAK

Prakruti	No. of Patients		Total	%
	Group A	Group B		
Vat-pitta	12	10	22	36.66
Vat-kapha	11	14	25	41.66
Kapha-pitta	7	6	13	21.66

Maximum no. of patients i.e. 41.66% having Vata-Kapha Prakriti followed by vat-pitta and Kapha-pitta in 36.66% and 21.66% of patients respectively

Table 5.10. Diet wise distribution of 60 patients of ARDHAVBHEDAK

Diet	No. of Patients		Total	%
	Group A	Group B		
REGULAR	09	12	21	35
IRREGULAR	21	18	39	65

Maximum no. of patients i.e. 65% was taken irregular diet while 35% was on regular diet pattern.

Table 5.11. Koshth wise distribution of 60 patients Of ARDHAVBHEDAK

Koshth	No. of Patients		Total	%
	Group A	Group B		
Mrudu	9	8	17	28.33
Madhyama	14	11	25	41.66
Krura	7	11	18	30

Maximum no. of patients i.e. 41.66% were having Madhyama Koshth, while 30% were having Krura Koshth remaining 28.33% patients having Mrudu Koshth.

Table 5.12. Agni wise distribution of 60 patients Of ARDHAVBHEDAK

Agni	No. of Patients		Total	%
	Group A	Group B		
Visham	14	13	27	45
Tikshn	5	4	9	15
Mand	9	12	21	35
Sam	2	1	3	5

Maximum no. of patients i.e. 45% were Visham Agni, while 35% were having Mand Agni, 15% patients were having Tikshn Agni and negligible i.e. only 5% patients having Sam Agni.

Table 5.13. Abhyavarana Shakti wise distribution of 60 patients of RDHAVBHEDAK

Abhyavarana	No. of Patients		Total	%
	Group A	Group B		
Pravara	2	4	6	10
Madhyama	20	21	41	68.33
Avara	8	5	13	21.66

Maximum no. of patients i.e. 68.33% were having Madhyama Abhyavarana Shakti followed by Avara and Pravara i.e. 21.66% and 10% of patients respectively.

Table 5.14. Jaran Shakti wise distribution of 60 patients Of ARDHAVBHEDAK

Jaran	No. of Patients		Total	%
	Group A	Group B		
Pravara	1	3	4	6.67
Madhyama	22	21	43	71.67
Avara	7	6	13	21.66

Maximum no. of patients i.e. 71.67% were having Madhyama jarana Shakti followed by Avara and Pravara i.e. 21.66% and 6.67% of patients respectively.

Table 5.15. Vyayam Shakti wise distribution of 60 patients of Ardhavbhedak

Vyayam	No. of Patients		Total	%
	Group A	Group B		
Pravara	7	9	16	26.67
Madhyama	19	15	34	56.66
Avara	4	6	10	16.67

Maximum no. of patients i.e. 56.66% was having Madhyama Vyayam Shakti followed by Avara and Pravara i.e. 16.67% and 26.67% of patients respectively.

Table 5.16. Sara wise distribution of 60 patients of ARDHAVBHEDAK

Sara	No. of Patients		Total	%
	Group A	Group B		
Pravara	3	2	5	8.33
Madhyama	21	21	42	70
Avara	6	7	13	21.67

Maximum no. of patients i.e. 70% were having Madhyama Sara followed by Avara and Pravara i.e. 21.67% and 8.33% of patients respectively

Table 5.17. Samhanan wise distribution of 60 patients of ARDHAVBHEDAK

Samhanan	No. of Patients		Total	%
	Group A	Group B		
Pravara	3	2	5	8.33
Madhyama	22	21	43	71.66
Avara	5	7	12	20

Maximum no. of patients i.e. 71.66% were having Madhyama Samhanan followed by Avara and Pravara i.e. 20% and 8.33% of patients respectively.

Table 5.18. Addiction wise distribution of 60 patients of ARDHAVBHEDAK

Addiction	No. of Patients		Total	%
	Group A	Group B		
Tea/coffee	29	30	59	98.33
Tobacco	11	10	21	35
Smoking	4	2	6	10
Alcohol	5	4	9	15

Maximum no. of patients i.e. 98.33% had addiction of tea or coffee, 15% had addiction of Alcohol. 10% patients had smoking habit & 11% patients had addiction of tobacco chewing.

Table 5.19. Onset wise distribution of 60 patients Of ARDHAVBHEDAK

Onset	No. of Patients		Total	%
	Group A	Group B		
Acute	20	22	42	70
Gradual	10	8	18	30

Out of 60 patients 70 % of patients was having acute onset of disease while remaining 30 % has gradual onset

Table 5.20. Sleep wise distribution of 60 pts. Of ARDHAVBHEDAK

Sleep	No. of Patients		Total	%
	Group A	Group B		
Regular	16	15	31	51.66
Irregular	14	15	29	48.33

51.66% having regular SLEEP history while 48.33% patients were having irregular SLEEP

Table 5.21. Menstrual history wise distribution of 37 patients of ARDHAVBHEDAK

Menstrual	No. of Patients		Total	%
	Group A	Group B		
Regular	09	12	21	56.75
Irregular	08	06	14	37.83
Menopause	1	1	2	05.40

Out of the 37 female patients studied, 56.75% having regular menstrual history while 37.83% patients were having irregular cycle & 05.40% patients were having no menses

Table 5.22. Family history wise distribution of 60 patients of ARDHA VBHEDAK

Family	No. of Patients		Total	%
	Group A	Group B		
Present	9	10	19	31.66
Absent	21	20	41	68.33

In present study maximum 68.33 % patients were having negative family history remaining 31.66% patients were having positive family history.

Table 5.23. Duration wise distribution of 60 patients of ARDHA VBHEDAK

Duration	No. of Patients		Total	%
	Group A	Group B		
0-6moths	6	3	9	15
6-12 moths	4	4	8	13.33
1-2 years	11	12	23	38.33
2-4 years	7	10	17	28.33
>4 years	2	1	3	5

Maximum no. of patients i.e. 38.33% were having duration 1-2 years, followed by duration of 2-4 yrs. i.e. 28.33% of patients only 5% patients having duration of > 4 years and 15% of patient having duration of 0-6 months

Table 5.28. Daily Variation wise distribution of 60 patients of ARDHA VBHEDAK

Daily Variation	No. of Patients		Total	%
	Group A	Group B		
Early Morning	4	8	12	20
Morning	5	3	8	13.33
Afternoon	3	5	8	13.33
Evening	15	11	26	43.33
Night	3	3	6	10

Maximum no. of patients i.e. 43.33% were having Ardhavbhedak lakshnas more at evening, followed by at early morning i.e. 20 % of patients. 13.33 % patients having daily variation at morning same as at afternoon. Only 10 % patients show more lakshnas at night.

Table 5.25. Season wise distribution of 60 patients of ARDHA VBHEDAK

Season	No. of Patients		Total	%
	Group A	Group B		
Summer	12	9	21	35
Rainy	7	11	18	30
Winter	11	10	21	35

No specific seasonal variation seen in patients of Ardhavbhedak both summer and winter seasons having 35 % while Rainy season having 30 %.

Table 5.26. Nature of pain wise distribution of 60 pts. of ARDHA VBHEDAK

Nature of	No. of Patients		Total	%
	Group A	Group B		
Tivra	30	30	60	100
Manda	00	00	00	00

Almost 100 % patients of Ardhavbhedak having Tivra kind of pain

Table 5.27. Aaharaj Hetu wise distribution of 60 patients Of ARDHA VBHEDAK

Hetu	No. of Patients		Total	%
	Group A	Group B		
Madya sevan	06	05	11	18.33
Guru aahar	09	10	19	31.66
Amla ras	05	08	13	21.66
Sheetambu pan	12	09	21	35
Aam	16	18	34	56.66
Vishamashan	08	10	18	30
Anshan	15	12	27	45

Maximum no. of patients i.e. 56.66 % were having Samata i.e. Aam which is most common cause of all disease, followed by Anshan is 45 % and Sheetambu sevan in 35 % of patients. Guru Aahar as a hetu was found in 31.66 % of patients Vishamashan, Amla ras ati sevan and Madya sevan had 31.66, 30 and 18.33 % hetu respectively.

Table 5.28. Viharaj Hetu wise distribution of 60 patients of ARDHA VBHEDAK

Hetu	No. of Patients		Total	%
	Group A	Group B		
Veg dharan	16	20	36	60
Asamyak nidra	14	16	30	50
Asatmy gandh	07	04	12	20
Raj/ atap sevan	10	14	24	40
Megh aagam	05	07	13	21.66
Vayusevan	12	11	23	38.33
Pravas	20	18	38	63.33

63.33% patients were having pravas as their mains hetu 60% of patients has vegdharan has their main hetu, 50% has asamyak nidra, 40% had raj/atap sevan, 38.33% had vayusevan, 21.66% had meghaagam and 20% had asatmy gandh as their triggering factors or hetu which lead to Ardhavbehak.

Table 5.29: Lakshna wise distribution of 60 patients of ARDHA VBHEDAK

Chief	No. of Patients		Total	%
	Group A	Group B		
Ardh Shirovedana	30	30	60	100%
Prakashasahatva	28	27	55	91.66
Bhrama	23	23	46	76.66
Shiropateev	26	26	52	86.66
Nausea	26	27	53	88.33
Phonophobia	23	22	45	75

Statistical analysis

The data collected from this clinical research work and arranged for further process by subjecting to various statistical methods and presented for early comprehension.

So the obtained data on the basis of observation in each group were subjected to statistical analysis in terms of Paired 't' test. The 't' test used for paired observations before treatment and after treatment. The formula for that is

- 1) 't' Calculated = MR/SE , where MR is the mean reduction between gradation of symptoms at two time period.
- 2) $MR = \sum d/n$, where d is the difference between gradation of symptoms at two time period.
- 3) S. D. of difference = Square root of $\{[\sum d^2 - (\sum d)^2/n]/n\}$,

where

n is the number of patients in one group.

- 4) S. E. of difference = SD/ n .

Now two hypotheses were made.

1) $H_0 =$ where symptoms before treatment and after are same i.e. test is insignificant ($MR = 0$).

2) $H_1 =$ where symptoms before treatment and after treatment are different i.e. test is significant ($MR \neq 0$).

It was considered at level of $P > 0.05$ (Insignificant), $P < 0.05$, $P < 0.01$ (Significant) and $P < 0.001$ (Highly significant). The table at 5 %, 1 %, 0.1% is considered (n-1) DF, to carry out the results.

The obtained data on the basis of observation of two groups were subjected to statistical analysis in terms of 'z' test as numbers of patients were more than 30. For comparing results in two groups, this test was done. As above, in this test also two hypotheses were made.

1) **H₀** – In Ardhavbhedak the efficacy of treatment with Group A [Sharkara Yukt Narikel Jala Nasya] is equal to the efficacy of treatment with Group B [Goghrit Nasya].

2) **H₁** - In Ardhavbhedak the efficacy of treatment with Group A [Sharkara Yukt Narikel Jala Nasya] is not equal to the efficacy of treatment with Group B [Goghrit Nasya].

The formula used is $Z = (x_1 - x_2) / SE$, where x_1 is the mean reduction in group A and x_2 is the mean reduction in group B.

S. D. of mean difference = Square root of $\{(n_1 SD_1^2 + n_2 SD_2^2) / (n_1 + n_2 - 2)\}$

S.E. = S.D. of mean difference $\times (1/n_1 + 1/n_2)$

It was considered at level of $P < 0.05$ (significant), $P < 0.01$ (significant); to carry out the results table value of Z at 1 % level of significance is 2.58. Table value of Z at 5 % level of significance is 1.96.

Table 5.30. Ardh Shirowedana

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT- AT					
Group A	2.83	1.33	1.46	51.76	0.8193	.01495	9.80	<0.001
Group B	2.80	0.80	2	71.42	0.5252	0.0950	20.85	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Ardh shirowedana but percentage wise relief Group B (71.42) is better than Group A (51.76)

Table 5.31. Prakashasahatva

	Mean			Relie %	S.D.	S.E.	T	P
	B.T.	A.T.	BT- AT					
Group A	2.73	1.5	1.23	45.12	0.858	0.1567	7.86	<0.001
Group B	2.56	0.53	2.03	79.22	0.964	0.176	11.5	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Prakashasahatva but percentage wise relief Group B (79.22) is better than Group A (45.12)

Table 5.32. Bhrama

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT- AT					
Group A	2.2	1.033	1.16	46.96	1.159	0.211	4.88	<0.001
Group B	2.2	0.4	1.8	81.81	1.18	0.216	8.311	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Bhrama but percentage wise relief Group B (81.81) is better than Group A (46.96)

Table 5.33. Shiropateev

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT- AT					
Group A	2.16	0.9	1.2	52.30	0.973	0.177	6.373	<0.001
Group B	2.13	0.46	1.67	78.12	1.124	0.205	8.11	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Shiropateev but percentage wise relief Group B (78.12) is better than Group A (52.30)

Table 5.34. Nausea

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT- AT					
Group A	2.2	1.23	0.97	39.39	0.899	0.164	5.27	<0.001
Group B	2.36	0.733	1.63	69.01	0.764	0.1396	11.6	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Nausea but percentage wise relief Group B (69.01) is better than Group A (39.39)

Table 5.35. Phonophobia

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT-AT					
GROUP A	1.33	0.76	0.37	20	0.520	0.095	2.80	<0.01
GROUP B	1.4	0.3	1.1	76	0.980	0.17	5.95	<0.001

This table shows that treatment for the Group A is statistically significant in relief of Phonophobia and highly significant for Group B and percentage wise relief of Group B (76) is better than Group A (20)

Table 5.36. Severity of Headache

	Mean			Relief %	S.D. +	S.E. +	T	P
	B.T.	A.T.	BT-AT					
Group A	2.833	1.26	1.54	55.29	0.858	0.156	9.99	<0.001
Group B	2.8	0.9	1.9	67.85	0.5477	0.100	18.99	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Severity of headache but percentage wise relief Group B (67.85) is better than Group A (55.29)

Table 5.37. Frequency of Headache

	Mean			Relief	S.D.	S.E.	T	P
	B.T.	A.T.	BT-AT					
GROUP A	2.46	1.1	1.36	55.40	0.835	0.152	8.95	<0.001
GROUP B	2.5	0.7	1.8	72	0.484	0.088	20.35	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Frequency of headache but percentage wise relief Group B (72) is better than Group A (55.40)

Table 5.38. Duration Of Headache

	Mean			Relief	S.D.	S.E.	T	P
	B.T.	A.T.	BT-AT					
GROUP A	2.73	1.366	1.36	50	0.835	0.152	8.95	<0.001
GROUP B	2.76	0.9	1.76	63.85	0.727	0.132	13.29	<0.001

This table shows that treatment for the both group is statistically highly significant in relief of Duration of headache but percentage wise relief Group B (63.85) is better than Group A (50)

Table 5.39. Total Effect of therapy in both groups

Result	GROUP A		GROUP B	
	No. of patients	%	No. of patients	%
Excellent (>75%)	3	10	13	43.33
Good (50-75%)	14	46.66	13	43.33
Moderately improved (25-50%)	8	26.66	4	13.33
Poor (<25%)	5	16.66	0	0

Paired 't' test: Paired 't' test is used to work out mean reduction between before treatment & after treatment under study and test is significant. Results obtained are presented in following table. The 't' table value at 5% is 2.045, 1% is 2.756 and 0.1% is 3.66.

Research Question – Is the efficacy of Goghrit Nasya is better than Sharkara Yukt Narikel Jala Nasya in Ardhavbhedak?

Hypothesis: The aim of the project work is to compare the efficacy of Sharkara Yukt Narikel Jala Nasya and Goghrit Nasya in Ardhavbhedak.

Null hypothesis – Ho – In Ardhavbhedak the efficacy of treatment with Group A [Sharkara Yukt Narikel Jala Nasya] is equal to the efficacy of treatment with Group B [Goghrit Nasya].

Alternate hypothesis: H1 - In Ardhavbhedak the efficacy of treatment with Group A [Sharkara Yukt Narikel Jala Nasya] is significantly different than the efficacy of treatment with Group B [Goghrit Nasya].

Here, Sample size that is Number of patients $n_1 = n_2 = 30$
At α level of significance, reject H_0 .
If $Z_{cal} \geq Z_{table}$, accept otherwise.

	GROUP A	GROUP B
MEAN	1.14	1.74
STANDARD DEVIATION	0.86	0.81

Difference between the means: 0.60

Standard error of difference between two means: 0.05

Z Cal = 3.90

Z table = 1.96

At 5 % level of significance, Z Cal > Z table.

Conclusion

Hence Null hypothesis Ho is rejected and Alternate hypothesis H1 is accepted.

H1 - In Ardhabhedak the efficacy of treatment with Group A [Sharkara Yukt Narikel Jala Nasya] is significantly different than the efficacy of treatment with Group B[Goghrit Nasya]. In Ardhabhedak the percentage wise efficacy of treatment with Goghrit Nasya is better than the efficacy of treatment with Sharkara Yukt Narikel Jala Nasya.

DISCUSSION

Ardhabhedak is one such disease where, when episode of Ardhabhedak occurs person feels helpless and handicap. WHO has ranked Migraine among the world's most disabling medical illness, the scope for prevention of the disease in modern science is not satisfactory. Hence, an attempt has been made to study the complete aspect of disease and to find the best possible way for the betterment of mankind.

Conceptual study

In Ayurveda text, almost all the Acharaya have mentioned Ardhabhedak in Shiroroga. Acharaya Sushruta has mentioned 11 types of Shiroroga in Uttar Tantra. Among them, one of them is Ardhabhedak in which paroxysmal unilateral headache associated with vertigo, photophobia are seen. Ardhabhedak can be scientifically correlated with Migraine due to its cardinal feature "half sided headache" which is also explained by Acharya as Ardh shirovedana and also due to its paroxysmal nature.

Discussion about disease

The quantity of food (Matra) has to be taken depends upon the power of digestion. Though even light food article, if taken in excessive quantity can produce Agnimandhya resulting in Amarasa formation which obstructs the channels and aggravates all the three doshas. The other factor exposure to eastern wind leads to constriction of blood vessels due to Sheeta Guna of Vata causing headache. Similarly suppression of natural urges obstructs the movements of Vata. Excessive sexual indulgence produces degeneration of Dhatus in reverse order Also the various types of pain like Toda, Bheda etc. are suggestive of "Vishama" nature of Vata dosha. In modern science the causes are explained as triggering factors such as Junk food, Skipping breakfast, Fasting habits, menses, Addiction to tea or coffee, Sunlight, Emotional and Physical

stress, Noise, etc. Various chemicals present in certain food are known to trigger migraines. The various Hetu leads to dosha dushti i.e., Tridoshaja (Su.), Vata-Kapha (Ch.) and Vata (Va). The dushti of Rasa and Rakta is also seen, as mentioned by Acharya Charaka – Shiroruk in Shonitaja Roga Simultaneously, Sroto dushti in Rasa – Raktavaha srotos also takes place, which can be taken as blood vessels of head, as migraine involves vascular phenomenon. The phenomenon Urdhavagamana by Vata due to its Chala Guna or Kapha along with Vata causing. Urdhavagpravriti explains the predominance of Vata dosha in establishing the pathogenesis. 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 Vata combines with Pitta.

Udana Vayu with Pitta results in murcha, daha, bhrama and klama. The symptom bhrama is due to Rajoguna and Pitta-Vata dosha involvement. On studying the etiology and symptoms, the disease Ardhabhedak can be realized as Vatika or Vata-kaphaja disorder. Preliminary Vata alone or combined with Kapha may be the pioneer doshas for Ardhabhedaka but due to nature of disease it may assume Sannipatika appearance swiftly Particularly in Ardhabhedak involvement of Prana Vayu is of much importance. Shirah is an important Marma-Vital organ of body; where Indriya, Gyanendriya and Pranavaha Srotas are situated When any kind of injury occurs in this Marma, intense pain is produced, because the Marmas are the vital organs for Prana Ardhabhedak can be differentiated from other Shiro-roga such as Suryavarta, Shankha, etc only due to its cardinal feature "half sided headache" and also due to its paroxysmal nature. This cardinal feature also differentiates it from Amlapitta because nausea – vomiting are seen in both the diseases.

Selection of Drug: According to Acharya Vagbhat Ardhabhedak is typically Vat Vyadhi. Thus, Ardhabhedak, a sadhya type of Shiroroga can be best managed with drugs having Vatahara and Bhruhan properties. The study was aimed to find out the comparative efficacy of two easily available drugs by the simple Panchakarma procedure like Nasya as there are Various internal Rasausadhis like Shirah-shooladi Vajra Rasa, Laghu Sutashekhara Rasa, Navjivana Rasa, etc have been mentioned in Bhaisajya Ratnavali, Rasa Tarangini, etc. and varius Nasya dravyas has been also tried before like Goghrit, but few of them have already been tried and few accepted by all. For the present study, Goghrit and Sharkara Yukt Narikel Jala were taken. Both the drugs are easily available and out of that Goghrit have been used before for clinical trial having good result in Ardhabhedak and we are comparing this with Sharkara Yukt Narikel Jala Nasya. Now this study was concentrated on the comparative effect of both drugs.

Discussion about the patient

1) Age: Maximum no. of patients i.e. 41.66% were from the age group of 21 – 30 years, 33.33% of patients were from age group 31-40 years, 11.66% of patients were from age group of 41-50 years & 3.33% of patients were from age group of 51-60 Years. In general, patients

suffer from headache in their middle age group and this group faces more hectic and stressful life by both psychological and physical way.

2) Sex: Maximum no. of patients registered i.e. 61.66% were female & 38.33% were male. From this it could be concluded that patients of these categories face many problems in the post marital family tension, daily hassles and stress of life. The prevalence of Ardhavbhedak is higher in females can be explained on the basis of close relationship between ovarian hormones and migraine.

3) Religion: Maximum no. of patients i.e. 90% was Hindu, 3.33% was Muslim & 6.66% was other religion As the area is dominant in hindu religion the no. of patient are more in this community.

4) Education: Maximum no. of patients i.e. 55.00% were graduate, 36.66% patients were higher secondary group, 8.33% patients were observed in primary educated group, 0.00% were uneducated.

5) Occupation: Maximum no. of patients i.e. 28.66% were housewives, 28.66% in serviceman, and 11.66% were farmer, 11.66% were self-employed & 20% patients were students. As number of female patients is higher and most of them are housewives we can't make any correlation with disease.

6) Marital status: Maximum number of patients i.e. 80% was married and 20% were unmarried. Due to the increased responsibilities in the post marital life, they get indulged in the busy schedule and faces stressful life, they can't avoid the harmful impact on their body.

7) Socioeconomical status: Maximum no. of patients i.e. 81.33% were found in middle class, 10% patients were from higher class & only 8.33% patients were from lower class. Middle class standard living is quite struggling to maintain a standard social level within its limited resources.

8) Desha: All patients are from Sadharan Desha in this study. All patients are residing nearby hospital which is Sadharan Desha.

9) Prakriti: Maximum no. of patients i.e. 41.66% having Vata-Kapha Prakriti followed by vat-pitta and Kapha-pitta in 36.66% and 21.66% of patients respectively, it makes patients more susceptible to the diseases occurring due to the predominance of these doshas.

10) Diet: Maximum no. of patients i.e. 65% were taking irregular diet while 35% were on regular diet pattern. Vishamashan Anshan and Adhyashan is most common practice in today's life and according to Ayurveda faulty diet techniques is main Hetu of any disease.

11) Koshtha: Maximum no. of patients i.e. 41.66% were having Madhyama Koshth, while 30% were having Krura Koshth remaining 28.33% patients having Mrudu Koshth. It's difficult to reach a conclusion only on basis of Koshth, but still

most of the patients of Ardhavbhedak were having the Madhyama Koshth.

12) Agni: Maximum no. of patients i.e. 45% were Visham Agni, while 35% were having Mand Agni, 15% patients were having Tikshn Agni and negligible i.e. only 5% patients having Sam Agni. As diet pattern plays main role in maintenance of Agni, most of the patients involved in study were having irregular diet pattern. So it is obvious that Visham Agni has important role in Samprapti of disease.

13) Abhyavaran shakti: Maximum no. of patients i.e. 68.33% were having Madhyama Abhyavaran Shakti followed by Avara and Pravara i.e. 21.66% and 10% of patients respectively. It does not make any correlation with formation and progress of disease in present study.

14) Jaran shakti: Maximum no. of patients i.e. 71.67% were having Madhyama Jaran Shakti followed by Avara and Pravara i.e. 21.66% and 6.67% of patients respectively. It does not make any correlation with formation and progress of disease in present study.

15) Vyayam shakti: Maximum no. of patients i.e. 56.66% was having Madhyama Vyayam Shakti followed by Avara and Pravara i.e. 16.67% and 26.67% of patients respectively. But it has been also noted that when episode of Ardhavbhedak occurs patients feel fatigue and Vyayam Shakti decreases.

16) Sara: Maximum no. of patients i.e. 70% were having Madhyama Sara followed by Avara and Pravara i.e. 21.67% and 8.33% of patients respectively. Madhyama Sara people are not much more prone to general diseases as compared to Avara Sara. But the Aharaj Nidana are very potential, hence it may be possible that Madhyama Sara people may be more prone to the diseases

17) Samhanan: Maximum no. of patients i.e. 71.66% were having Madhyama Samhanan followed by Avara and Pravara i.e. 20% and 8.33% of patients respectively. On the basis of Samhanan we cannot make any conclusion

18) Addiction: Maximum no. of patients i.e. 98.33% had addiction of tea or coffee, 15% had addiction of Alcohol. 10% patients had smoking habit & 11% patients had addiction of tobacco chewing. Alcohol and heavy consumption of tobacco are important triggering factors of migraine that has been proved in many previous researches.

19) Onset: Out of 60 patients 70 % of patients was having acute onset of disease while remaining 30 % has gradual onset.

20) Sleep: 51.66% patients were having regular Sleep history, while 48.33% patients were having irregular Sleep. Anidra is one of the major cause of Vat dosha vitiation which is main dosha involved in Ardhavbhedak Samprapti.

21) Mensrtual history: Out of the 37 female patients studied, 56.75% having regular menstrual history while 37.83% patients were having irregular cycle & 05.40% patients were having no menses. In present study we can't make any

correlation with disease but according to modern science disturbed hormonal level plays important role in pathogenesis of disease.

22) Family history: In present study maximum 68.33 % patients were having negative family history remaining 31.66% patients were having positive family history. This is a small data study so it can't be concluded on this result.

23) Duration: Maximum no. of patients i.e. 38.33% were having duration 1-2 years, followed by duration of 2-4 yrs. i.e. 28.33% of patients only 5% patients having duration of > 4 years and 15% of patient having duration of 0-6 months. This shows chronicity of disease.

24) Daily variation: Maximum no. of patients i.e. 43.33% were having Ardhavbhedak lakshnas more at evening , followed by at early morning i.e. 20 % of patients. 13.33 % patients having daily variation at morning same as at afternoon. Only 10 % patients show more lakshnas at night. Obviously Vata dosha pradhan kala will show exaggerated symptoms.

25) Seasonal variation: No specific seasonal variation seen in patients of Ardhavbhedak both summer and winter seasons having 35 % while Rainy season having 30 %.

26) Nature of pain: Almost 100 % patients of Ardhavbhedak having Tivra kind of pain, that is what explained in Samhita.

27) Aaharaj hetu: Maximum no. of patients i.e. 56.66 % were having Samata i.e Aam which is most common cause of all disease, followed by Anshan is 45 % and Sheetambu sevan in 35 % of patients. Guru aahar as a Hetu was found in 31.66 % of patients Vishamashan, Amla ras ati sevan and Madya sevan had 31.66, 30 and 18.33 % respectively. Most of the people today are not following regular diet pattern, junk food or excessive dieting leads to Agnimandya which ultimately leads to Aam formation which is most common cause of disease. Sheetambu pan is increased today due to overuse of refrigerator which aggravates both Vata and Kapha dosha.

28) Viharaj hetu: 63.33% patients were having pravasa as their main Hetu 60% of patients has vegdharan has their main Hetu, 50% has asamyak nidra, 40% had raj/atap sevan, 38.33% had vayusevan, 21.66% had meghaagam and 20% had asatmya gandh as their triggering factors or hetu which lead to Ardhavbhedak. Ratrijagarana and Diwaswapa aggravate Vata and Kapha dosha respectively. Environmental factors, like Dhupa , Dhum, Dhuli causes the Atiyoga of indriyas and serves as a triggering factor.

Discussion about result

1) Effect on Ardh Shirovedana: The initial score of Ardh Shirovedana for Group A was 2.83 which was reduced to 1.33 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.80 from the initial score 2.80 reliefs with very high significant result. This may be because of Vata shaman property of drugs. But percentage wise relief Group B (71.42) is better than Group A (51.76)

2) Effect on Prakasasahatva: The initial score of Prakasasahatva Group A was 2.73 which was reduced to 1.5 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.53 from the initial score 2.56 reliefs with very high significant result. But percentage wise relief Group B (79.22) is better than Group A (45.12)

3) Effect on Bhrama: The initial score of Bhrama Group A was 2.2 which was reduced to 1.03 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.4 from the initial score 2.2 reliefs with very high significant result. But percentage wise relief Group B (81.81) is better than Group A (46.96)

4) Effect on Shiropatateev: The initial score of Shiropatateev Group A was 2.16 which was reduced to 0.9 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.46 from the initial score 2.13 reliefs with very high significant result. But percentage wise relief Group B (78.12) is better than Group A (52.30)

5) Effect on Nausea: The initial score of Prakasasahatva Group A was 2.2 which was reduced to 1.23 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.73 from the initial score 2.36 reliefs with very high significant result. But percentage wise relief Group B (69.01) is better than Group A (39.39)

6) Effect on Phonophobia: The initial score of Phonophobia for Group A was 1.33 which was reduced to 0.76 with significant result ($p < 0.01$). In Group B the score was reduced to 0.3 from the initial score 1.4 reliefs with very highly significant result ($p < 0.001$). This table shows that treatment for the Group A is statistically significant in relief of Phonophobia and highly significant for Group B and percentage wise relief of Group B (76) is better than Group A (20)

7) Effect on Severity of Headache: The initial score of Severity of headache Group A was 2.83 which was reduced to 1.26 with highly significant result ($p < 0.001$). In Group B the score was reduced to 0.9 from the initial score 2.8 reliefs with very high significant result. But percentage wise relief Group B (67.85) is better than Group A (55.29)

8) Effect on Frequency of Headache: The initial score of Frequency of headache Group A was 2.46 which was reduced to 1.1 with highly significant result ($p < 0.001$) in experimental group. In Group B the score was reduced to 0.7 from the initial score 2.5 reliefs with very high significant result. But percentage wise relief Group B (72) is better than Group A (55.40)

9) Effect on Duration of Headache: The initial score of Duration of headache for Group A was 2.73 which was reduced to 1.36 with highly significant result ($p < 0.001$).

In Group B the score was reduced to 0.9 from the initial score 2.76 reliefs with very high significant result. But percentage wise relief Group B (63.85) is better than Group A (50)

Few points observed during study

- 1) Goghrit Nasya was well tolerated by patients without creating any complications.
- 2) In 6 cases of Group A i.e. treatment with Sharkara Yukt Narikel Jala Nasya patients shows lakshnas of Pratishyaya
- 3) Five cases were noted statistically unchanged in Group A these cases were showing Kapha dominance.
- 4) Overall Nasya therapy shows good result in case of pain.

Probable Mode of Action: As we preciously look over the Hetu and Lakshna of Ardhavbhedak it is found that involvement of all three dosha along with Rakt dhatu in Samprapti of Ardhavbhedak. Sushruta also mentioned Ardhavbhedak is caused by three dosha.

- 1) According to different Acharya Nasya is best treatment for Ardhavbhedak.
- 2) According to Vagbhat the disease is caused by Vata dosha only and Shaman Nasya should be given in Ardhavbhedak. Sharkara has Vatashaman as well as Pittashaman property as it has Madhur Ras and Vipak this diminishes increased vata. Madhur ras and Sheet Veerya diminishes Pitta. Same can be applied in case of Narikel Jala. The combination of both will be more potent but the Kapha Vardhan property is also increased. So in study it was observed that six patients have shown lakshnas of Pratishyaya and five patients having kapha dominance shows no result.
- 3) Goghrit is best amongst all sneha; it has Tridosha shaman property which plays most important role in Samprapti Bhang of disease. It was also noted that in previous research Goghrit has significant result in management of Ardhavbhedak.
- 4) It was mentioned earlier rakt vitiation has been observed in Ardhavbhedak. All three drugs that are Sharkara, Narikel Jala and Goghrit have Rakt prasadan property.
- 5) According to Vagbhat Shaman Nasya in Ardhavbhedak Sharkara Yukt Narikel Jala and Goghrit are the drugs involved in Avapid Nasya. Stambhan Nasya is type of Avapid Nasya And Shaman Nasya and Stambhan Nasya dravyas has same property So we can state that both the Nasya therapies are effective in Ardhavbhedak.
- 6) The overall effect of Goghrit Nasya is better than Sharkara Yukt Narikel Jala. As Sharkara Yukt Narikel Jala has strong Kapha vardhan property and in Ardhavbhedak Samprapti Kapha dosha is also involved Goghrit shows better result.

Conclusions

Without finding some conclusion on any study, it would not become successful in its aims and a scientific discussion on any conceptual and clinical oriented study definitely gives rise to some fruitful conclusions. Here also in this particular study, some reasoning and example database concept and achieved results along with the observations have been discussed in the previous pages and from that following conclusions can be drawn:

- Ardhavbhedak is one of the most common Shiroroga and an incident of this Vyadhi is very high in present era and is increasing day by day.

- The age groups from 21-30 years are more prone to this disease as emotional and physical stress can be seen at its peak in today's life.
- In present study Female sex, House wives and Married patients are more prone to the disease than males, other occupation and Unmarried patients.
- Ardhavbhedak is one of the Shiroroga in which the Vata dosha is mainly responsible for the manifestation of the disease.
- Improper diet pattern, excessive emotional stress, addiction, excessive journey and improper sleep are the major Hetus or triggering factors of Ardhavbhedak.
- Due to the huge similarity between sign & symptoms the disease is correlated with Migraine.
- In present study I found the pain is always Tivra in nature.
- According to Bhaishajya Ratnavali in Shirorogadhikar, has mentioned that Goghrit and Narikel Jala can be used as Nasya therapy in Ardhavbhedak. These ingredients are easily available and cost effective
- It was also found that before an attack of Ardhavbhedak or migraine some of the patients show either psychological or physical alertness like feeling depressed, nervous, sleepy, awake or hungry.
- Akshivedana (pain in eye) was the most common site of pain found almost in 100 % of patients as compared to other site of pain mentioned in text.
- Triggering factors described in modern texts are the Hetu mentioned by our ancient Acharya.
- In six patients of group A, we found Lakshnas of Pratishyaya. This is may be due to Kapha vardhana property of Sharkara and its combination with Narikel Jala and it may be also due to Sheet kala.
- Goghrit Nasya was well tolerated by patients without creating any complications.
- As the study was conducted on small scale for a period of 28 days and after the study if patient start Hetu sevana the disease may be relapse.
- This work was done by keeping in view all the cautions. In spite of that, there may be chances of bias in research and also in interpretation of concepts in appropriate way. Author takes sole responsibility for such errors. It may be hoped that, the reader of this dissertation would gain some additional aspects of knowledge and assistance for future research work.
- In Ardhavbhedak the efficacy of treatment with Sharkara Yukt Narikel Jala Nasya is significantly different than the efficacy of treatment with Goghrit Nasya. In Ardhavbhedak the percentage wise efficacy of treatment with Goghrit Nasya is better than the efficacy of treatment with Sharkara Yukt Narikel Jala Nasya.
- In nutshell, Ayurveda proved better in the management of the disease in comparison to modern aspect i.e., Goghrit Nasya proved to be a good effective therapy in curing the disease without creating any complications.
- It can be concluded that there is satisfying scope of suggesting these Ayurveda management as safe and effective procedure for Ardhavbhedak.
- Suggestion for further study: Further studies with enhanced evaluation can be done in future to establish more facts regarding the management of Ardhavbhedak, Because in

the present hectic and struggling life, not a single individual is spared from the common human ailment i.e. headache. It can be also said that the efficacy of Goghrit Nasya may be increases along with proper internal medication further more research should be done. In excessive severity or chronic condition, long term therapy gives better results and to avoid re-occurrence. So in future, same topic can be taken for further research to overcome some lacunas if found, for better results and for better conclusions.

- Final conclusion is the percentage wise efficacy of Goghrit Nasya in Ardhabhedak is better than that of efficacy of Sharkara Yukt Narikel Jala Nasya and its proven very much beneficial to reduce the intensity of symptoms on the statistical analysis.

REFERENCES

- Astanga Sangraha of Vagbhata, with Hindi vyakhya, Edited by Kaviraj Atrideva Gupta, Published by Krishnadas Academy, Varanasi. 1993.
- Astanga Sangraha of Vriddha Vagbhata with Sashilekha commentary by Indu, edited by Shivaprasad Sharma. Published by Chaukhamba Sanskrit Series office, Varanasi. 2006.
- Astangahridaya of Vagbhata with Sarvangasundara commentary by Arundatta and Ayurvedarasayana commentary by Hemadri. Edited by Hari Sadasiva Sastri Paradakara, Published by Chaukhamba Surbharati Prakashan, Varanasi. 2010.
- Astangahridaya of Vagbhata with Vidyotini Hindi commentary by Atrideva Gupta. Edited by Yadunandana Upadhyaya. Published by Chaukhamba Prakashan, Varanasi. 2007.
- Baghel, M.S. 1977. Researches in Ayurveda, Mridu Ayurvedic publication, Jamnagar.
- Basavarajiyamu (Telugu translation of Basavarajiyam written by Basavaraj) Translated by Puvvada Gurunath Rao. Published by Anandabharati Power Press, Chennai. 1934.
- Belavadi Santosh N. Panchakarma Sarasamgraha. Published by G.B. Patil, Principal, D. G. M. Ayurvedic Medical College, Gadag. 2010.
- Bhaisajya Ratnavali of Govindadas Sen. Edited with Siddhi Prada Hindi Commentary by Siddhinandan Mishra, Published by Chaukhamba Surbharati Prakashan, Vranasi. 2009.
- Bhavaprakasha of Bhava Mishra Edited with Vidyotini Hindi commentary by Brahma Shankar Mishra. (Part-2). Published by Chaukhamba Sanakrit Bhawan, Varanasi. 2007.
- Bhavaprakasha of Bhava Misra, Volume -1. Commentary by Bulusu Sitaram. Published by Chaukhamba Orientalia, Varanasi. 2006.
- Bhavaprash nighantu (Indian Materia Medica) Written by Bhava Mishra, Commentary by K. C. Chunekar. Edited by G.S. Pandey. Published by Chaukhamba Bharati Academy, Varanasi. 2010.
- Blau JN: Migraine: theories of pathogenesis. Lancet.1992; 339:1202-1207.
- Chakradatta written by Chakrapanidatta, with Padarthabodhini Hindi commentary by Ravidatta Shastri. Published by Chaukhamba Surbharati Prakashan, Vranasi. 2006.
- Charaka Samhita, Written by Agnivesha, Redacted by Caraka compiled by Dridhaval, (Text with English translation and Critical Exposition based on Cakrapani Datt's Ayurveda Dipika Commentary), Edited by Ram Karan Sharma, Bhagwan Dash. Vol - V & VI, Published by Chaukhamba Sanskrit Series Office, Varanasi. 2010.
- Charaka Samhita, Written by Agnivesha, Redacted by Caraka, compiled by Dridhaval, with Ayurveda Dipika commentary by Chakrapanidatta. Edited by Yadavji Trikamji Acarya, Published by Chaukhamba Surbharati Prakashan, Varanasi. 2009.
- Charaka Samhita, Written by Agnivesha, Redacted by Caraka, compiled by Dridhaval, with Ayurveda Dipika commentary of Chakrapanidatta and Jalpalkapataru explanatory notes and annotation of Gangadhar Kaviratna Kaviraj. Edited and revised by Narendranath Sengupta and Balaichandra Sengupta, 5th Part, Published by Rashtriya Sanskrit Sansthan, New Delhi. , 2002.
- Chunekar KC, Hota NP, Plants of Bhavaprakash. Edited by Sharma S K. Published by National Academy of Ayurveda, New Delhi. 1999.
- Douglas Gelb j et al. Introduction to Clinical Neurology. 3rd ed., Elsevier. 2009.
- Eugene Braunwald et al. Harrison's Principles of Internal Medicine. 15th ed. Mc Graw Hill Education. 2003.
- Gerard Tortora J, Bryan Darricson H. Principles of Anatomy and physiology. 12th ed. John Wiley & Sons (Asia) Medical Publishing Division. 2009.
- Haslett C et al. Davidson's Principles and Practice of Medicine. 19th ed. Churchill Livingstone. 2002.
- Houghton Andrew R, Gray Devid. Chamberlain's Symptoms and Signs in Clinical Medicine. 13th ed. Book Power. 2010.
- Kashyapa Samhita or Vriddha jivakiya Tantra, Preached by Maricha Kashyapa, written by Vriddha Jivaka, redacted by Vatsya. Edited by P. V. Tiwari, Published by Chaukhamba Visvabharati, Varanasi. 2002.
- Kasture HS. Ayurvediya Panchakarma Vigyana. Published by Baidyanath Ayurveda Bhawan, Nagpur. 1997.
- Lavekar GS et al. Clinical Research Protocols For Traditional Health Sciences. Published by Central Council For Research in Ayurveda and Siddha, Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India, New Delhi. 2010.
- Madanapala nighantu written by Madanapala. Edited by J. L. N. Sastry. Published by Chaukhamba Orientalia, Varanasi. 2010.
- Madhava Nidana of Madhavakara with Madhukosha commentary by Vijayarakshit and Srikantadatta and with extracts from Atankadarpana by Vachaspati. Edited by Yadavji Trikamji Acharya, Published by Chaukhamba Orientalia, Varanasi. 2000.
- Mahadevan L, Srividya S, Jeyalakshmi B. Dr. L. Mahadevan's Ayurvedic Clinical Practice. Vol-2 (Neurology). Published by Sarada Mahadeva Iyer Ayurvedic Educational and Charitable Trust, Derisanamcope, Kanyakumari. 2011.
- Munro John F, Campbell Ian W. Macleod's Clinical Examination. 10th ed. Churchill Livingstone. 2000.
- Nampoothiri Vasudevan MR, Mahadevan L. Principles and Practice of Vasti. Published by Dr. Y. Mahadeva Iyer's Sri

- Sarada Ayurvedic Hospital, Derisanamcope, Kanyakumari. 2006.
- Rasaratnasamuccaya written by Vagbhata. Hindi commentary by Indradev Tripathi. Published by Chaukhamba Sansthan, Varanasi. 2009.
- Sachitra Shalakyatantra- by Vd. Dayal Parmar, Saraswati Pustak Bhandar, Ahmedabad. 1st edition 2005.
- Sarangadhara Samhita written by Sarangadhara with Dipika commentary by Adhamalla and Gudharthadipika commentary by Kasiram, Edited by Parasuram Shastri. Published by Chaukhamba Surbhsrati Prakashan. Varanasi. 2006.
- Sastry J L N, Sawanth B S, Illustrated Dravyaguna Vijnana
- Sen Sunil K. Essentials of Clinical Diagnosis. 8th ed. The Standard book House, Kolkata.
- Sharma Ajay Kumar, Soni Surendra, Soni Anamika. Kayachikitsa Vol-4. Published by Chaukhamba Publisher's, Varanasi. 2010.
- Sharma Ajay Kumar, Yadav Parasuram Singha. Kayachikitsa Vol-3. Published by Chaukhamba Publisher's, Varanasi. 2010.
- Sharma PV. Dravyaguna Vijnan Volume-II. Published by Chaukhamba Bharti Academy, Varanasi. 2003.
- Singh RH. Panchakarma therapy. Published by Chaukhamba Sanskrit Series Office, Varanasi. 2007.
- Studies on Medicinal Plants and Drugs in Dhanvantari nighantu. Commentary by D.K. Kamat, Edited by S. D. Kamat. Published by Chaukhamba Sanskrit Pratisthan, New Delhi. 2002.
- Susruta Samhita (Ancient Indian Surgery) of Susruta, Edited with English Translation and explanatory notes by G. D. Singhal, Published by Chaukhamba Sanskrit Pratisthan, Delhi. 2007.
- Susruta Samhita of Susruta with Nivandhasangraha Commentary by Dalhana, Edited by Yadavji Trikamji Acharya, Published by Chaukhamba Surbharati Prakashan, Varanasi. 1994.
