

# Role of arka taila karnapurana in karnakandu w.s.r. to otomycosis

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*Keywords: Karnakandu, Otomycosis, Karnapurana, Arka Taila*

## Introduction:

During the Vedic period itself the existence of Karna roga and its treatment were available. In Samhita period, Acharya Susruta has mentioned 28 karna rogas & its treatment in detail. Out of them, Karnakandu is one of the most common diseases affecting the ear.

The signs & symptoms of Karnakandu such as pain, discharge, itching etc. can be correlated to otomycosis. Otomycosis is a fungal infection of the ear canal often due to Candida and Aspergillus. It is seen in hot & humid climate of tropical and Subtropical countries.

Secondary fungal growth is also seen in patients using topical antibiotics for treatment of otitis externa or middle ear Suppuration. So, the disease was selected for present study.

Among the various qualities of an ideal drug -readily availability and cheaper are two important qualities present with the drug Arka taila having ingredients Arka swarasa, Sarsapa taila and Haridra churna.

Arka taila (Sa. Ma. 9/144) is indicated for itching, Vicarcika, Pama, kacchu etc. which are due to fungal infection of skin. Otomycosis is also a condition due to fungal infection. Since all ingredients are easily available in their authentic form and have disinfectant and antiseptic properties and Vatakaphagna, kusthaghna, kandughna, visaghna, vranasodhana, vranaropana, effects. So, Arka taila is selected for present study as trial drug.

## Aims & objects :

1. To study the etiological factors of Otomycosis (Karnakandu) in Ayurvedic and modern view.
2. To assess the efficacy of Arka-taila in the management of Karnakandu (Otomycosis).

## Materials & methods:

The whole material is divided into following:-

1. **Conceptual material:** Different Ayurvedic and modern texts, journals, research papers were referred for this part of study.
2. **Clinical material:** In this part a detailed clinical study has been carried out from both Ayurvedic & modern point of view.

## Inclusion Criteria:

The selection of patients was done on the basis of signs & symptoms of Karnakandu - otomycosis described as per Ayurvedic and modern medical science.

## Exclusion Criteria:

Patients suffering from any debilitating diseases like diabetes, T.B. etc. and with other aural pathology e.g. CSOM, ASOM, Perforation of tympanic membrane etc. were excluded from the study.

30 patients were given Arka Taila as Karnapurana irrespective of age, sex, & religion.

Dose: 4 - 8 drops / karnapurana, in luke warm condition.

Duration: 100 matra for 15 days.

Frequency: Twice or thrice daily.

## Discussion:

The disease Karnakandu (Otomycosis) is a fungal infection of external auditory canal. Itching, Pain, blocking sensation, otorrhoea are the chief symptoms of this disease. Though it is simple disease if not treated

properly can perforate the tympanic membrane. Once the tympanic membrane got perforated due to a little exposure to cold or water entry into the ear canal. Patients used to suffer frequently with karnasrava, Pratisyaya etc. It also hampers the hearing mechanism.

The disease karnakandu (Otomycosis) occurs due to several Nija nidana such as Avasyaya, Pratisyaya etc. Due to these etiological factors vitiation of dosas occurs when they get accumulated (sthanasamsraya) in the ear, and causes twak, rakta, mamsa dhatu dusti which leads to karnakandu. Due to several Agantuja karana such as karnakandu by unsterile instrument, mithayoha of sastra karma, if polluted water enters into the ear canal (Nimajjate jale) may cause fungal infection in the ear canal.

Total effect of the treatment was assessed on the basis of clinical assessment of signs and symptoms and statistical analysis in both the groups and then conclusion and results were drawn.

## Results & Conclusion

1. Prevalence of Karnakandu (Otomycosis) is found to be more in 21-40 years age group.
2. Percentage of Karnakandu (Otomycosis) is same irrespective of sex.
3. It is seen that Otomycosis has no religion wise distribution.
4. Otomycosis has no relation with particular occupation but among female patients, housewives are more prone.
5. Vata kapha Prakrti people are more prone for this disease.
6. Study shows middle class and lower middle class people are mostly affected with these disease.

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7. It usually affects one ear but both ears can also be affected.
8. Genetic factor has no role with this disease.
9. Maximum number of patients attending the O.P.D. were having Madhyama category of Sara, Samhanana, Satva, Satmya, AhāraSakti, Vyayama Sakti & Vaya.
10. There is no relation between sleeping pattern and the disease Karnakandu (Otomycosis)
11. Maximum patients consult the doctor within one week of onset of disease due to its acute manifestation with severe pain.
12. Pravrut rutu (June-July) and varsha rutu (Aug-Sep) are favorable seasons for Karnakandu (Otomycosis)
13. Hot & Humid atmosphere, water entry in the ear, scratching of the ear by unsterile instrument such as, Matchstick, hair pin, key & finger nail etc are the main causes for invading fungus.
14. Aspergillus and Candida are the chief opportunistic fungus causing this disease Otomycosis.
15. Otomycosis due to Candida albicans may be compared with Vata Kapha predominant condition & that of Aspergillus may be compared with Tridoshas condition of the disease Karnakandu (Otomycosis)
16. During the treatment period pathya-apathya should be followed specially head bath should be prohibited.
17. Sufficient amount of arkataila should be put (Karnapurana) to get expected result.
18. Regular cleaning of ear canal in an interval of 2-3 days till the prohibition of fresh fungal growth is an essential factor for quick relief of the disease.
19. The drug Arkataila is effective to treat the disease Karnakandu (Otomycosis). Arkataila can be applied safely without any precaution even if tympanic membrane is perforated.
20. Arkataila Karna Purana for duration of 15 days is sufficient for the treatment of the disease Karnakandu (Otomycosis), provided proper Pathyā-apathya should be followed.

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Advanced glycation end products (AGEs) are products of non-enzymatic glycation and oxidation of proteins and lipids which accumulate in the body in a wide variety of environments. AGEs may be generated rapidly or over long-times stimulated by variety of distinct triggering mechanisms, thereby accounting for their potential roles across multiple settings and pathologies. The mechanisms for such physiopathologic placement of AGEs are diverse; nonetheless, a critical property of AGEs is their ability to activate the RAGE (receptor for advanced glycation end products), which is a signal transduction receptor of the immunoglobulin super-family.

The accumulation of AGEs is a natural process that increases slowly with aging; however, as mentioned earlier, abnormal accumulation of AGEs can be induced by many disease states, dietary habits, and other factors.

Maillard reaction is the most common pathway involved in production of AGEs; nonetheless, AGEs are also present preformed in high amounts in high-temperature processed foods, consumption of which would significantly add to the systemic toxic pool of these powerful pro-oxidants-AGEs-even in "normal" individuals. These glycation products-AGEs-thus rapidly accumulate in the body, then through in the brain as well, and turn on the mechanisms affecting the physiologic milieu.

**Medicine Update**



# Role of Shatawari Ghrita in Pratham Patalagata Timir w.s.r. to Simple Myopia

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Keywords: Timir, Simple Myopia, Shatawari Ghrita, Tarpana.

**Introduction:**

Eyes are the most important God's gift to human beings. Eyes are involved in 90% of our daily activities. We see, we learn, we enjoy and we proceed in life.

In Ayurvedic ophthalmology, the progression of pathogenesis of Drishtigata Rogas is explained in terms of involvement of successive Patilas. Vitiated Doshas produces various clinical pictures, when they are situated in different Patilas. Involvement of successive Patila means the pathology progresses to deeper tissues and the prognosis worsens accordingly.

Timir is one such disease which is included under Drishtigata Rogas by all Acharyas. Clinical features of Timir vary according to various patilas i.e. first to fourth patil.

Clinical features of Pratham Patalagata Timir are having similarities with that of Refractive errors in modern ophthalmology viz Myopia.

Shatawari and Ghritahese are easily available, cost effective and considered as Chakushya dravyas.

If single dravya is used in different manner i. e. orally and locally it might gives wonderful results and it is easy to assess the

results. In modern Ophthalmology Optical correction with concave lenses & surgery is the only treatment for Myopia.

**Aims & Objectives:**

To evaluate the role of systemic use of Shatawari Ghrita and Shatawari Ghrita Akshi Tarpan in Pratham Patalagata Timir w.s.r. to Simple myopia.

**Review of Literature:**

Detail review of literature regarding ayurvedic concept of eye, palat, patalagatyadihi, concept of vision in ayurveda, timir, its types, treatment modalities was done from all the available literatures of Ayurveda.

Also modern concept of eye, its anatomy, physiology, refractive errors, their types, myopia, its types, treatment modalities was taken from modern texts & updates from internet through websites.

Detail review of Neura Kriyakalpa, Tanpana, its advantages, disadvantages, procedure was taken through ayurvedic literature.

Detail review of Shatawari, Goghritra, Godugdha their uses, physical and chemical properties was taken from available literature. Novelty of proposed work was discussed on the background of previous work done.

**Materials and Methods:**

**Inclusion criteria:**

1. Patient between 7-25 years of age group irrespective of gender.

2. Patient having Simple Myopia upto -6.0 D.
3. Patient having lakshanas of Pratham patalagata dosha dushi.

**Exclusion criteria:**

1. Patient having myopia more than -6.0D.
2. Patient having ocular diseases other than simple myopia.
3. Patient having any systemic diseases.
4. Patient having post operative myopia.

**Method of work:**

1. Total 360 patients were selected randomly for the study on the basis of clinical presentation and diagnostic criteria.
2. Detail case pro forma was prepared and used accordingly.
3. Written consent of the patient as well as his parents or guardians was taken in his own language and in English.
4. Clinical study was conducted in three groups after thorough examination of patient's ocular condition.
5. Group - A - In 120 patient's optical correction with appropriate concave lenses was prescribed.
6. Group - B - In 120 patient's optical correction with concave lenses was prescribed along with systemic use of Shatawari ghrita for 30 days.
7. Group - C - In 120 patient's optical correction with concave

lenses was prescribed along with Shatawari ghrita Akshi Tarpan.

According to Sharangdhar adult dose of Ghrita is one pala i.e. 40 gm. In 17-25 year age group Shatawari ghrita is given 20 gm in the morning and 20 gm in the evening. In 7-16 year age group Shatawari Ghrita is given according to Young's Rule i.e. Age of the child in years /age of child + 12 X Adult dose.

Shatawari Ghrita Akshi Tarpan was done in 1 X 7days in 3 sittings each with 7 days intervals i. e. total 21 days.

**Observations and Results:**

The results were drawn strictly on the basis of data collected & after statistical analysis.

**1. Age:**

In the present study the number of patients in 7-17 age group were 87 i. e. 24.16% and the number of patients in 18 -25 age group were 273 i. e. 75.83%.

**2. Gender:**

In the present study the number of males were 201 i. e.55.83% and the number of females were 159 i. e. 44.16%. The percentage of males was higher than the females.

**3. Occupation:**

In the present study 73.05% patients were taking education, 15% patients were in the service, 11.66% were housewives.

**4. Etiological factors:**

In this series 46.66 % were having Sukshmanrikshana, 8.61% Shirobhitapa, 62.5 % Krotha, 15.55% were having Swapnaviparyaya & 21.94% were having Shoka as Nidana, Durekshanat 25.27 % patients, 02.22 % patients were doing Ratriaryambupana, 38.61 % Ushnabhitasasya Jalapavachata, 8.61 % Shirobhigata,

22.77% Malavarodha, 1.38% Dhumanshevanam. & 07.5 % were having Airmathuna as nidansevana & none of the patients were having, Chhardivighatada, Yamanariyogata, Rituviparyaya, Mutravarodha, Yashpagrahata, Aitsantapa, Rajosevana, Aharibhojana.

**5. Chief Complaints:**

In the present study the maximum 78.05% patients were having Headache, 57.22% patients were having Eyestrain, 51.38% patients were having Diminished vision, 30.27% patients were having Watring of eyes, 6.11% patients were having redness of eyes, 1.94% patients were having Blurred vision and no one patients were having the symptoms like Diplopia and Burning of Eyes.

**6. Fundus Examination:**

In the present study all the patients were having normal fundus picture.

**7. Visual Acuity:**

In the present study maximum 53.75% patients eyes were having visual acuity in between 6/6 - 6/9, 35.97% eyes were having visual acuity in between 6/12 - 6/18. The 5.41% patients eyes were having visual acuity in between 6/24 - 6/36 and 4.86% eyes were having visual acuity 6/60.

**8. Dioptric Power:**

In the present study the Dioptric power of 85% patients were lie in 0.00 - 1.00, 10.69% patients were lie in -1.25 - 2.00, 2.36% patients were lie in -2.25 - 3.00 and 1.94% patients dioptric power was lie in -3.25 - 4.00.

**9. Group - A: Optical correction -**

After 30 days the effect of treatment on Chief complaints shows various results. Optical correction gave 96% cure rate in indistinct distant vision, 66.66% in Blurred vision, 62.19% in

Headache, 59.18% in Eyestrain, 64.70% in Watring of eyes and the percentage of cure in Redness of eyes was 71.42%.

**10. Group - B (Optical correction with Oral Shatawari Ghrita)-**

After 30 days the effect of treatment on Chief complaints shows various results. Optical correction with Oral Shatawari Ghrita gave 96.77% cure rate in indistinct distant vision, 100% in Blurred vision, 98.98% in Headache, 97.46% in Eyestrain, 83.33% in Watring of eyes and the percentage of cure in Redness of eyes was 40%.

**11. Group - C (Optical correction with Shatawari Ghrita Tarpana)**

After 30 days the effect of treatment on Chief complaints shows various results. Optical correction and Shatawari Ghrita Tarpana gave 95.89% cure rate in indistinct distant vision, 97% in Headache, 96.15% in Eyestrain, 88.33% in Watring of eyes and the percentage of cure in Redness of eyes was 80%. In Group - C no one patient was suffering from Blurred vision.

**12. Indistinct distant vision (30th Day) -**

After 30 days the overall effect of treatment on indistinct distant vision between the three groups shows no significant results. The Chi square value was 0.0795 (P>0.05). It means that the treatments show similar effect on indistinct distant vision.

**13. Eyestrain (30th Day) -**

After 30 days the overall effect of treatment on Eyestrain between the three groups shows extremely significant results. The Chi square value was 50.248 (P<0.05). It means that the difference in results was because of treatments.



**14. Headache (30th Day) -**

After 30 days the overall effect of treatment on Headache between the three groups shows extremely significant results. The Chi Square value was 68.4159 (P<0.05). It means that the difference in results was because of treatments.

**15. Redness of eyes (30th Day) -**

After 30 days the overall effect of treatment on Redness of eyes between the three groups shows no significant results. The Chi Square value was 4.9445 (P>0.05). It means that the treatments show similar effect on Redness of eyes.

**16. Waterying of eyes (30th Day) -**

After 30 days the overall effect of treatment on Waterying of eyes between the three groups shows significant results. The chi Square value was 7.4142 (P<0.05). It means that the difference in results was because of treatments.

**17. Optical correction (30th Day) -**

On first follow - up (30th day) the overall effect of treatment on Optical correction between the three groups in 120 patients in each group shows extremely significant results. The 'P' value was P<0.0001.

The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correction and oral Shatawari Ghrita.

**18. Optical correction (90th Day) -**

On second follow - up (90th day) the overall effect of treatment on Optical correction between the three groups in 120 patients in each group shows extremely

significant results. The 'P' value was P<0.0001.

The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and

Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correction and oral Shatawari Ghrita.

**19. Optical correction (180th Day) -**

On third follow - up (180th day) the overall effect of treatment on Optical correction between the three groups in 120 patients in each group shows extremely significant results. The 'P' value was P<0.0001.

The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correction and oral Shatawari Ghrita.

**20. Visual acuity (30th Day) -**

On first follow - up (30th day) the overall effect of treatment on Visual acuity between the three groups in 120 patients in each group shows extremely significant results. The 'P' value is P<0.0001.

The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correction and oral Shatawari Ghrita.

**21. Visual acuity (90th Day) -**

On second follow - up (90th day) the overall effect of treatment on Visual acuity between the three groups in 120 patients in each group shows extremely significant results. The 'P' value was P<0.0001.

The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correct on and oral Shatawari Ghrita.

**22. Visual acuity (180th Day) -**

On third follow - up (180th day) the overall effect of treatment on Visual acuity between the three groups in 120 patients in each group shows very significant results. The 'P' value was P<0.0024. The variations between the means of three groups were significantly greater than expected by chance.

The Optical correction and oral Shatawari Ghrita gives good results than only Optical correction and Optical correction with Shatawari Ghrita Tarpana gives good results over Optical correction and oral Shatawari Ghrita.

**23. Visual acuity (180th Day) -**

In Group - A (Optical correction) vision remains same in 80% eyes and in 20% eyes vision was improved by less than one line. There was no improvement of vision by one or two lines with optical correction after 180 days.

In Group - B (Optical correction & oral Shatawari Ghrita) vision was improved by one line in 14.16% eyes while in 14.58% eyes vision was improved by less

than one line and in 71.25% eyes vision remains same.

In Group - C (Optical correction & Shatawari Ghrita Tarpana) vision was improved by one line in 28.33% eyes while in 12.5% eyes vision was improved by less than one line and in 59.16% eyes vision remains same.

Systemic and Topical use of Shatawari Ghrita with Optical correction gives good results in Timir (Simple myopia).

**Discussion:**

1. Shatawari Ghrita was more palatable for systemic use and accepted by all the patients & it gives better results in Timir (Myopia).

2. Due to Balya, Rasayana, and Chakshuya properties of Shatawari Ghrita asthenopic symptoms like headache, waterying, eye strain, neck pain were relieved in most of the patients.

3. Modified procedure of Tarpanakarma was very easy, less time consumable and accepted by all the patients.

4. Due to Tarpana procedure refractive errors were reduced in most of the patients. Strength of the eyeball was increased in many patients & it gives best results in Timir (Myopia).

5. Major advantage of Tarpana Karma was that a high concentration of medicine was achieved at desired site without exposing the rest of the body.

6. Epithelium and Endothelium of Cornea are highly permeable for lipid content and Stromal layer to water soluble content so for complete penetration drug should be lipophilic and hydrophilic which was shown by Shatawari Ghrita.

7. Minor side effects of Tarpanakarma like irritation of the eyes, redness are noted but these symptoms do not require any specific treatment.

8. Combination therapy of oral and local (Tarpana) use of Shatawari Ghrita might give wonderful results.

9. Shatawari Ghrita is easily available, cost effective and long term use may improve eyesight as well as general health of the patient.

**Conclusion:**

Conclusion is the determination established by investigating in various ways and deducting by means of various reasons (Ch. VI, 8).

On the basis of the present study, following conclusions can be drawn -

1. **Group-A:** Optical Correction provided better results in chief complaints like Indistinct distant vision.

2. **Group-B:** Oral Shatawari Ghrita with optical correction provided better results in chief complaints like Indistinct distant vision, Blurred Vision, Eyestrain and Headache.

3. **Group-C:** Shatawari Ghrita Tarpana with optical correction provided better results in chief complaints like Indistinct distant vision, Blurred Vision, Eyestrain and Headache.

4. In reduction of dioptric power, both Oral and Tarpan (Group B & C) has shown better results than only Optical correction.

5. Oral Shatawari Ghrita & Shatawari Ghrita Tarpana (Group B & C) shows moderately effective results on Visual Acuity. Tarpana shows better results than oral treatment.

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# Review of Hypertensive Retinopathy

DHANSHREE POL, KIRAN B. PATIL

## Introduction

The retina is the tissue layer located in the back of eye. This layer transforms light into nerve signals that are then sent to the brain for interpretation. When your blood pressure is too high the retinal blood vessel wall may thicken. This may cause your blood vessel to become narrow, which then restricts blood from reaching the retina. In some cases retina become swollen.

High blood pressure can cause damage to the retinal blood vessel, disturbs the retinal function, and put pressure on the optic nerves, causing vision problems this condition is called as "Hypertensive Retinopathy".

Hypertensive Retinopathy refers to retina changes occurring in patients suffering due to systemic hypertensive.

## Etiology

Due to high blood pressure

1. Vasoconstriction,
2. Arteriosclerosis
3. Increased vascular permeability.

It is usually presents with a 'dry retina' (Few hemorrhages, rare edema, rare exudates multiple cotton wool spots)

## Pathophysiology

A. Hypertension leads to laying down of cholesterol into tunica intima of medium and large arteries. This reduces the lumen size of these vessels.

B. In arteriosclerosis it leads to focal closer of the retinal microvasculature. This gives rise to microinfarcts (Cotton wool spots) and superficial haemorrhages. In extreme cases, disc edema develops.

C. Cotton wool spots develop in 24.48 hours with the elevation of BP and resolve in 2 to 10 weeks with the lowering BP.

D. A macular star develops within several weeks of the development of elevated BP and resolves within months to year after the BP is reduced.

Hypertension is a major risk factor for other retinal disorders (i.e. retinal artery or vein occlusion).

Hypertension combined with diabetes greatly increase risk of vision loss.

## Types:

**1. Hypertension with involutinary (senile) sclerosis:-** Fundus changes comprise Augmented Arteriosclerotic Retinopathy.

**2. Hypertension without sclerosis:-** It is seen in young people. There are few retinal signs. The arterioles are constricted, pale and straight with acute angle branching.

**3. Hypertension with Compensatory Arteriolar sclerosis:-** It is seen in young patients with prolonged benign hypertension. The young Arterioles respond by proliferative and fibrous changes in the media.

**4. Malignant hypertension:-** It is an expression of its rapid progression to serious degree in a patient with relatively young arterioles undefended

by fibrosis. Fundus picture characterized by pappiloedema, marked arteriolar narrowing, retinal oedema over the posterior pole and cotton wool patches.

## Clinical features:-

In early stages fundoscopy identifies arteriolar constriction with a decrease in the ratio of the width of the retinal arterioles to the retinal venules.

## Symptoms-

1. Bleeding in the eye
2. Blurred vision
3. Complete loss of vision
4. Double vision
5. Headache
6. Eye swelling
7. Spots or Dark strings floating in vision (Floaters)
8. Impaired colour vision

## Signs of Hypertensive Retinopathy with Gradations:

### • Grade 1:

It consists of mild generalised arteriolar attenuation, particularly of small branches, with broadening of the Arteriolar light reflex and vein concealment.

### • Grade 2:

It comprises marked generalized narrowing and focal attenuation of arterioles associated with deflection of veins at arterovenous crossings (Salus sign)

### • Grade 3:

This consists of grade 2 changes plus copper - wiring of arterioles, banking of veins distal to arteriovenous crossings (Bonnet sign), tapering of

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veins on either side of the crossings (Gunn sign). Flame shaped haemorrhages, cotton wool spots and hard exudates are also present.

**Grade 4:**

Silver – wiring of arterioles and papilloedema and all above changes.

**Due to Chronic Hypertension:-**

- Permanent arterial narrowing
- Arteriovenous crossing abnormalities
- Vascular wall changes
- Vascular occlusion

**In severe cases:-**

- Superficial flame shaped Haemorrhage

- Small white superficial foci of retinal ischemia
- Yellow hard exudates
- Optic disk oedema

**Diagnosis-**

Diagnosis of Hypertensive retinopathy done on the basis of

1. Ophthalmoscopy.
2. Fluorescein Angiography.

**Treatment:-**

Hypertensive retinopathy is managed primarily by controlling Hypertension.

1. Treatment of hypertension i.e. Antihypertensives
2. Salt restricted diet
3. Regular exercise

4. Vasodilators in occlusion
5. Diuretics in edema
6. Laser therapy ND-YAG, Argon etc.
7. Intravitreal Injections like Triamcilon, Avastin.

**Complications-**

1. Ischemic optic neuropathy.
2. Retinal artery occlusion.
3. Retinal vein occlusion.
4. Nerve fiber layer ischemia or damage to the nerve fibers.



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# Netratarpana

KIRAN B. PATIL

Ayurveda is a science with a very rich legacy which describes various physiotherapeutic procedures in many clinical conditions. Akshi Tarpana is also one such procedure which is widely indicated in many ophthalmic conditions. It is found to be effective on anecdotal and clinical experience grounds. It is the foremost treatment procedure mentioned in Sushruta Samhita for eye disorders. But even then, neither proper acceptance nor precise scientific reasoning for the procedure is established.

There are lots of discrepancies found in the whole process. Drug absorption and mode of action are also big riddles to understand & explain to modern as well as Ayurvedic physicians, so that its acceptance and significance could be understood by the masses.

The word 'Tarpana' is derived from the root 'Trup' by adding the 'Lyut'

Pratyaya. The literary meaning of the Tarpana is to give nourishment of the eye through Ghrita, Ghriamanda, medicated Ghritas, Vasa, Majja (bone marrow) etc.

**Indication for Tarpana karma:**

*Tamvoti ativishukham Yai ruksham  
Yacchottidanam.*

*Shirrapakshnavilom jivham rogakishnam ch  
yadhrunam.*

*Tadkshitarpanadev labhejojimsamsamshyam ||*

(Su. U. 18/17-18)

When a patient sees darkness in front of eyes, in severe dryness of the eyes, much roughness of the eyes, stiffness of the eyelids, falling of eye lashes / Madrosis, dirtiness of the eyes / Altered or lost lustre of ocular surface, deviated eye ball / Squint.

In extreme aggravation of the diseases of the eye. Vagbhata has further added a list of disease specifically selected for Tarpana. They are Kricchraomtilana, Sraharsha, Siropana, Arjuna, Shukra, Timir, Abhishtaya and Adhimantha, Anyalovata, Valaparyaya and inflammatory

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conditions of the eyes Vatika and Paritika diseases of eyes as well as injured eyes due to Abhignaha.

**Contraindications for Tarpana karma:**

*Durdina atishaha shiteshu chintaya vabhrameshu ch  
Ashanto updrave chakshhi tarpanam na prashsyate ||*  
(Su. U. 18/18)

According to Acharya Sushruta, the various conditions where Tarpana is contraindicated are given below:

1. Cloudy day.
2. Excessive hot and cold season.
3. Worry and Anxiety – Mental state
4. In Exhaustion, Giddiness – Physical health state
5. In the condition of acute pain etc. - complication of ocular disease.

**Procedure:**

The patient is asked to lie down on his back, in a chamber free from direct sun rays, wind and dust, and is given mild fomentation with a cotton soaked in lukewarm water, then the eyes are encircled with firm, compact leak proof wall made up of paste of powdered Mashha pulse (black gram). The patient is asked to close the eyes and over the closed eyes, liquefied Ghrita is poured very slowly till the entire eyelashes are under the liquefied Ghrita. Patient is instructed to close and open his / her eyes (Umimesha & Nimeshha). After retaining for the stipulated time, the Ghrita is drained out through the hole made near the outer canthus and the eye is irrigated by lukewarm water fomentation (Su. U.18/6-10).

**Pashchat karma:**

After finishing the main procedure of Akshitarpana, Dhoompana i.e. medicated smoke is given to the patient. Then patient is advised to avoid direct exposure to excessive cold, heat, wind, lustrous & shiny things.

**Course of procedure:**

*Ekaam va trityamva api panchaham  
cheshyate param | (Su. U. 18/12)*

Sushruta, without clarifying the condition of the eye, simply asks to perform the procedure for one day, three days and five days or till the proper satiating features are attained.

Dalhana in his commentary quotes the view of Gayadasa, Jejjata and Videha. According to Gayadasa, this duration is given in accordance to Vatika, Paritika and Shlarsmika eye disease respectively.

According to Jejjata, the duration of treatment in mild, moderate and severely aggravated Doshas is of one, three and five days respectively.

Videha says that the procedure should be carried out daily in Vatika diseases, alternatively in Paritika and Rakajia diseases, with interruption of two days in healthy eye and Samnipataja disease and with the interruption of three days in Kapha diseases.

Vagbhata is in agreement with Videha, except for Kapha diseases where he advises an interruption of two days.

**Period of retention:**

Tarpana should be retained for a period, which is taken for counting the number of syllables mentioned according to the healthiness or unhealthiness of the eye.

**Signs and symptoms of proper Tarpana:**

*Sukha swapna abodhatvam veshyadam varnashavam  
Nivrtti vyadhrividhwans: kryya laghavamech ||*  
(Su. U. 18/13)

The features of properly conducted Tarpana i.e. sound sleep, Blissful awakening, cessation of secretion, cleanness of vision, discernment of individual colours, agreeable sensation, lightness

of the eye and proper functioning of eye, ability of the eye to tolerate Sunlight.

**Complications of excessive Tarpana:**

*Guruvilom atinigdham ahrna kandaplekhavai  
Deyam dash samuklistam netram allatarpitam ||*  
(Su. U. 18/14)

Features of heaviness, indistinct vision, excessive oiliness, lacrimation, itching, stickiness and aggravation of Doshas especially Kapha Dosh results from excessive Tarpana.

**Effect of inadequate Tarpana:**

*Ruksham avilam:traldhyam satham rapdarshone  
Vyadhrvudhichya tai dnyeyam hin tarpitam akshich  
(Su. U. 18/15)*

Dryness, indistinct vision, excessive lacrimation, intolerance to light and aggravation of the disease are the features of insufficient Tarpana.

**Treatment of inadequate and excessive Tarpana:**

*Anyro: dash bahulyat prayatei chikitsive  
Dhym nasya anjane seke : rukshe : snigdhech  
ya yogvit || (Su. U. 18/16)*

In these two conditions, treatment will be applied according to predominance of Doshas with Dhoompana, Nasya, Anjana and Saka either Snigdha or Ruksha are to be used for them. Snigdha in diseases of Vata, Ruksha in Kapha and Sheeta in Pitta.

**Essential hypertension accounts for >90% of cases of hypertension. The pathogenesis of essential hypertension is multifactorial, with involvement of multiple pathophysiological factors. THESE include increased sympathetic nervous system activity, activity of the rennin-angiotensin-aldosterone system, and vascular tone due to inappropriate levels of vasoconstrictors, vasodilators and alterations in adrenergic receptors; inadequate dietary intake of potassium and calcium; diabetes mellitus and insulin resistance and altered cellular ion transport.**

In addition to these dietary sodium, or salt, intake has been found to play a key player, and the most common and important risk factor for hypertension.



Obstructive sleep apnea (OSA) is a chronic condition in which there is repetitive partial or complete collapse of pharynx during sleep. OSA is the most common sleep-related breathing disorder and is increasingly being recognized as an important risk factor in cardiovascular diseases.



# Treatment of shiroroga

KIRAN B. PATIL

## General Management of Shiroroga

Commonly in all type of Shiroroga (headache) the following preventive measures should be taken -

### • Nidana Portvortano

According to the treatment point of view, the etiological factors producing headache should be avoided. Commonly rest, avoid holding of the urges, controlling the mind is very helpful. Also other Aharaaja and Viharaaja Hetus should be avoided.

### • Samshodhana Chikitsa

Shirovirechana-Nasyakarma has been advised as the important method of treatment in Urdhvaajaturgata Rogas. This repeated use of Nasya with special medicines that are indicated for such conditions is to be put into practice in headaches.

### • Samshamana Chikitsa

Along with Nidana parivarjana, the vitiated doshas should be brought to their normal state with the help of drugs, based on Samanya Vishesh principles, according to predominance of the manifesting dosha.

### • Other Measures

Yogratnakara has described the following measures for Shiroroga. Snehana, Upanaha, Swedana, Dhumpana, Lepa, Langhana, Parishka, Agnikarma, Raktamokshana, Shirobasti.

These measures should be applied after considering the predominance of dosha and other general considerations of the patient.

### • SChirovajoaya

In the present time counseling is not only beneficial in psychiatric conditions but also in psychosomatic diseases like Migraine, as a supportive therapy to alleviate the aggravated condition by making the patient able to cope up his illness with better adjustment and adaptation.

### Psychological and Psychodynamic methods

are no more a palliative management but also a curative treatment in those conditions. The basics approach is,

1. Assurance
2. Exchange or replacement of emotions viz. replacement of Kama, Krodha, Bhaya, Harsha, Irshya etc. with appropriate emotions.
3. Psychoshoock therapy

### In Bhaishajya Ratnavali,

General line of treatment for Shirah-Shoola has been described which are Swedana, Nasya, Dhumpana, Virechana, Lepa, Vamana, Langhana, Shirobasti, Raktamokshana, Agnikarma, Upanaha, Purana Ghrita and Shashika Shali.

### Specific Management of Shiroroga

#### • Vataja Shiroroga

The following alleviating measures should be employed in management of Vataja-Shiroroga Snehana (oleation), Swedana (formulation), Navana (nasal medication), Lepa (local application), Seka (irrigation), Dhuma (Fumigation) along

with Vata-Shamaka drinks, food and hot poultices, Dalharkama (Cauterization) is advisable in Vataja Shiro Rogas, which can be relieved by other measures. The medicines advised are:

Taila - Rasnadi taila, Baladi taila, Trivrit taila, Bala taila

Ghrita - Maha Mayura Ghrita, Mayura Ghrita

#### • Pittaja Shiroroga

Pittaja Shiro Roga should be treated with Pita purifying measures as Ghritpana, milk-intake, Nasya, Seka (irrigation), Sheeta lepa (cold poultices); with pitta alleviating food and drinks, Asthapana basti, Virechana, Sira vedha are also applicable. The preparations advised in Pittaja Shiro Roga are Candanadi pradaha, Parishka, Yashtyadi Ghrita.

#### • Kaphaja Shiroroga

Kaphaja Shiro Roga should be remedied by Kapha suppressive measures like Shiro Virechana, Vamana, Dhumpana and Gandusha dharana, Swedana (fomentation of head) followed by Dhuma, Nasya, Pradhama (insufflation of powder) and Kaphahara pralepa (local applications). Old Ghrita, Basti prepared by Tikshana drugs and Daha (cauterization) can be advocated.

Nasya - karphaladi nasya, Arkadi nasya, Hayari nasya.

#### • Samnipataja Shiroroga

The treatment of Samnipataja Shiro Roga is based on the predominance of dosha and thus a combined treatment is given. Sushruta advises drinking of Ghrita, Taila, Basti, Dhumpana, Nasya, Lepa, Swedana.

#### • Krimija Shiroroga

The appropriate treatment of Krimija Shiro Roga is Tikshana Shiro Virechana. Pradhama Nasya, Avpidia Nasya, Kawalagraha, Ghrita, Nasya should also be employed.

#### • Suryavarta

Ghritpana, Shiro Virechana, Kaya Virechana, irrigation of head with Ghrita, Taila, Vasa and Majja milk, Upanaha with meat of wild animals and Nasya are useful in treating Suryavarta. Sira Vedha in addition to other medication can also be performed.

#### • Ananta Vata

Rakta Mokshana, Nasya along with the measures applied in Suryavarta is also advisable when considering Vata as the predominant involvement.

#### • Ardhavabhedaka

Ardhavabhedaka is best treated with Ghrita, Taila and Majja, Shiro Virechana, Kaya Virechana, Nadviveda, Niruha and Anuvasana, Basti, Upanaha and Shiro Basti.

#### • Sankhaka

Sankhaka Roga has been described to be fatal, but if the patient survives the attack of headache for three days then the following measures should be considered - Shiro Virechana and Snehana, Nasya with Ghrita, Shiro Lepa, Parishka with cold drugs Pradeha, Avapida and Ghrita for intake along with other greasy food.

#### • Sadhya-Asadya

In Samhita the Sadhyasadya of Shirashhoola is not described specially. The prognosis of a disease is usually dependent upon its severity. The Shirashhoola, which is not chronic than one year and devoid of any major complication, can be termed as Sukhasadya. On the contrary, when Shiroroga is having history of long chronicity with chances of relapses and is of chronic in nature, no improvement seeing even after undergoing all sorts of treatment can be termed as Asadya.

Activation of heme oxygenase-1 (HO-1), a heme-degrading enzyme responsive to a wide range of cellular stress, is traditionally considered to convey adaptive responses to oxidative stress, inflammation and vasoconstriction. These diversified effects are achieved through the degradation of heme to carbon monoxide (CO) biliverdin (which is rapidly converted to bilirubin by biliverdin reductase) and ferric iron.

○○○

- reach out

Prucalopride (Resolor®) is a novel enterokinetic agent. It is the first of a new generation of selective, high-affinity 5-HT<sub>4</sub> receptor agonists. This drug, which has been developed for the treatment of chronic constipation in adults in whom laxatives fail to provide adequate relief, stimulates gastrointestinal (GI) motility through its effects on 5-HT<sub>4</sub> receptors.

○○○

- British Journal of Clinical Pharmacology

The second peptide with incretin activity, a glucagon like peptide (GLP-1) was discovered in 1987. Both GLP and GLP-1 are extremely short-acting. Plasma half-life of GLP is 1-2 minutes. This rapid inactivation is due to a ubiquitous enzyme, dipeptidyl peptidase-IV (DPP-IV).

In 1992, J.Eng, J P Raufmann and co-workers identified a breakthrough in the most unusual place, after considerable research. They found a peptide in the venom of a poisonous lizard - the 'Gila monster' (Heloderma suspectum), seen in Arizona and Mexican deserts. The peptide was mainly in the saliva of this lizard and was called extendin-4. It is a potent agonist at the GLP-1 receptor of insulin secreting beta cells in pancreas and remains effective for much longer than human GLP-1.

Journal of The Association of Physicians of India



# Nasya Karma

KIRAN B. PATIL

Nasya karma is the best treatment for the Shirogata Roga and specially Nasagata Roga according to all Ayurvedic scholars and ancient literature. Nasya therapy is also indicated in the diseases of Mukha, Karma and Netra roga. Urdhvaatrugata roga is one of the important branch of Ashanga Ayurveda and Nasya karma is the main therapeutic measure of Urdhvaatrugata roga. All organs, which are above the clavicle, are considered as Urdhvaanga e.g. Nasa, Mukha,

Netra and Shirah. Without Nasya karma it is not possible to eliminate the vitiated doshas, which are situated in the Shirah or nasa etc.

**Definition of Nasya**

In Ayurveda, the word Nasya has been taken specifically to mention the route of administration of the drugs.

Acharya Sushruta has given the description meaning "the medicaments, which administered through nose is called as Nasya." (S.Chh.40/21)

**Synonyms**

- Shirovirechana
- Shirovireka

Table of classification of Nasya according to various Acharyas

No	Name of Acharyas	Reference	Classification
1	Charaka	Ch.Si.9/89-92 Ch.VI.8/151	According to mode of action - Rechana, Tarpana, Shamana According to the method of administration - Navana, Avapida, Dhmanapa, Dhuma, Prathmarsha According to various parts of drugs utilized Phala, Patra, Mula, Kanda, Pusthpa, Niryas Twaka
2	Sushruta	S.Chh.40/21	Shirovirechana, Pradhmana, Avapida, Nasya, Prathmarsha
3	Yagbhata	As.H.Su.20/2	Virechana, Brimhana, Shamana
4	Kashyapa	Ka.Si.4/3	Shodhana, Poorana
5	Sharangadhara	Sha.S.U.8/2,11,24	Rechana, Snehana

Taking the Charaka's classification as the basis, all the above mentioned types of Nasya are being described here separately.

**1. Navana Nasyo :**

Navana is one of the important and well applicable therapies of Nasya Karma.

**Method** - Navana is administered by instilling the drops of a medicated oil or Ghrita in the nose. Navana is generally the Sneha Nasya and is known as Nasya in general.

**Classification** - It can be mainly classified into Snehana and Shodhana Nasya.

**• Snehana Nasyo :**

As the word Sneha suggests, Snehana Nasya gives strength to all the Dhatus and is used as Dhaturposhaka.

**Dose -**

The following is the dosage schedule for Sneha Nasya (S.Chh.40/28).

- **Hina Matra** - 8 drops in each nostril.
- **Madhyammatra** - Shukti Pramana - 16 drops in each nostril.
- **Uttama Matra** - Panishukti Pramana - 32 drops in each nostril.

**Indications of Sneha Nasya -**

- Sneha Nasya can be given in the following conditions :  
Varika Shirashshula, Keshlapata, Dantrapata, Shmashrupata, Tyraknashula, Timira, Nasaroga, Mukhashosha, Avabahuika, Akalaja Valita, Akalaja Palita, Darunaprobodha and Valapitaja Mukharoga (S.Chh.40/22).

**• Shodhana Nasyo :**

Sushruta's Shirovirechana type is included in Shodhana type of Navana Nasya. It eliminates the vitiated Doshas.

**Drugs -**

In this type of Nasya, oil prepared by Shirovirechana Dravyas like Pippali, Shigru etc. can be selected.

**Dose -**

- It can be given in following dosage schedule according to Sushruta (Su.Chh. 40/36).  
i. Uttama - 8 drops  
ii. Madhyama - 6 drops  
iii. Hina - 4 drops.

**Indications -**

It can be used in the following conditions: Kaplapurna Talu & Shirra, Aruchi, Shirogaurava, Shula, Pnasa, Ardhavabhedaka, Krimi, Pratishtaya, Apasmara, Gandhagyananasha and Urdhvaatrugata Kapharogas. (Su.Chh.40/23)

**Dose -**

In healthy persons Navana Nasya should be given according to the following seasonal schedule.

- **Season Nasya given at -**  
i. Shita Kala : Noon  
ii. Sharada and Vasantia : Morning  
iii. Grishma Ritu : Evening  
iv. Varsha Ritu : Only when sun is visible.

**• Time Schedule :**

Navana Nasya should be administered according to the following time schedule. (Dalhana on Su.Chh.40/24; As.H.Su.20/14)

- i. In Kaphaja Roga : Fore noon  
ii. In Pittaja Roga : Noon  
iii. In Valaja Roga : After Noon  
2. **Avapida Nasyo :**  
It is a type of Shodhana Nasya.

**Definition -**

The word Avapida means it is expressed juice of leaves or paste (kalka) of required medicine (Chakrapani on Ch.Si.8/9).

**Method -**

For this purpose first Kalka of the required medicine is prepared which is placed in white & clean cloth & is squeezed to obtain the required quantity of juice, directly in the nostril of the patient. The administration of the drug in this way is known as Avapida Nasya (Sha.S.U.8/12).

It may also be given by dipping the swab (pichu) into the Shirra (decoction) or Sheeta (cold infusion), Swarasa (juice) of the required drug (Dalhana on S.Chh.40/21).

Though Sushruta recommends it only for Shirovirechana, Shakara & Ikshurasa have been recommended for Stambhana Urdhvaatrugata Kaplapitua. (Su.Chh.40/45)

**Types -**

It is mainly of two types. (Ch.Si.9/90)

- i. Stambhana Nasya  
ii. Shodhana Nasya.

**Drugs -**

For Shodhana purpose Kalka of Tikshna Dravyas like Sandhava, pippali etc. have been mentioned as Avapida Nasya and for Stambhana purpose Stambhana drugs have been described.

**Dose -**

Like Shirovirechana, Avapida Nasya should be given in the following dose. (Dalhana on S.Chh. 40/36).

- Hina Matra - 4 drops  
Madhyama Matra - 6 drops  
Uttama Matra - 8 drops

**Indications -**

Avapida Nasya is indicated in the following conditions. (Dalhana on Su.Chh.40/44)

- Manasaroga      Apasmara
- Shirovedana      Chitrayaklavashta
- Moha Mada      Murchha Sanayasa
- Bhaya Krotha      Bhira Sukumara
- Krisharogi      Sri Rakrapitua
- Vishabhigata      Aparantraka

Sharangadhara recommends the Avapida Nasya for the patients suffering from Galatoga, Vishamanivara, Manovikara and Krimi. (Sha.S.U. 8/16).

**3. Dhmanapo Nasyo :**

Dhmanapo or Pradhmana is a specific Shodhana Nasya.

**Definition -**

This type of Nasya is instilled with churma (powder) specifically for Shirovirechana. Dhmanapo mentioned in Charaka & Pradhmana described in Sushruta.

**Method -**

In Pradhmana Nasya, Churna (powder of drugs) is administered



(inhaled) by Nasal passage with the help of Nadi Yantira (Shandangula Nadi both side open ended). The Churna (fine powder) of required drug is kept at one end, and air is blown from the other end, so that the medicine may enter into the nostrils. (Ch.Si.9/107)

**Dose -**  
According to Videla the dose of Dhuma Nasya is three Murchi.

**Drug -**

Generally Tikshna drugs like - Saindhava, Pippali, Maricha, Vidanga, etc (Dallhana on Ch.Si.9/91) are used for this type of Nasya. Hence cautions should be taken during its administration.

**Indications -**  
Its indications are as follows. (Ch.Su.5/46)

- i. Shiro Roga (Disease of the head)
- ii. Nasa Roga (Disease of the nose)
- iii. Akshi Roga (Disease of Eye)

**4. Dhuma Nasya :**

**Definition -**  
Dhuma Nasya is defined as medicated fume taken by nasal route and eliminated by oral route. Acharya Sushruta has not described it as a type of Nasya. The smoking per mouth is known as Dhumapana and is not included in Nasya. It is harmful to eye sight.

**Types -**

**Dhuma Nasya are of the following types :**

- Prayogika, Snaithika, Vairechanik  
**Instrument -**

Charaka has mentioned special Dhumanadi (smoking pipe) for it. It should be of 24 angulas length and breadth of measuring one's own angula (Ch.Su. 5/49). This

measurement is for Virechana type. 32 Angula length for Snehika Dhuma and 36 Angula length of Prayogika Dhuma is advocated.

**Dose -**

During the prescribed time, a wise person should smoke twice for habitual variety of smoking. Once for Snehika Dhuma (Unctuous variety) and three to four times for the Vairechanik Dhuma (eliminative variety of smoking).

**Drugs -**

For Prayogika Dhuma drugs like Priryangu, Ushira etc. should be used. For Snehika Dhuma Vasa, Ghrita etc. and for Vairechanik Dhuma, drugs like Aparajita, Apamarga etc. should be used. (Ch. Su. 5/20-26).

**Indication -**

Dhuma Nasya is indicated in Shiroroga, Nasaroga and Akshiroga. (Ch. Su.5/46)

**5. Marsha - Praimarsha Nasya :**

**Definition -**

Marsha and Praimarsha both consists of introduction of oil through the nostrils. It is well tolerated and is very much convenient procedure. Praimarsha and Marsha are same in principle, but the main difference between them is of dose. In Praimarsha Nasya 1-2 drops are given while in Marsha

Nasya the dose is 6 to 10 drops.

**6. Praimarsha Nasya :**

Praimarsha Nasya can be given daily and even in all the seasons at morning and evening. (Chakrapani on Ch.Si. 9/117)

**Method -**

It is given by dipping the finger in the required Sneha and then dropping it in the nostrils. The patient should be advised not to sniff the Sneha given in the form of Nasya.

**Dose -**

2 drops morning and evening. The Sneha should atleast reach from nose to gullet, but it should not be too much that could produce secretion in gullet (Chakrapani on Ch.Si. 9/117)

**Indications -**

Praimarsha can be given in (A.H.Su.20/25)

Any age. Any season, Bala, Vridhdha, Bhira, Sukumara, Weak patients, Ksha, kshama, Trishna Pidita, Mukhashosha, Valita, Palita

Even in not suitable time & season i.e. in Varsha and Durdina

**Contraindications -**

It is contraindicated in Dushta Pratishtaya, Krimija Shiroroga, Madhyapi, Badhriya (deafness), Bahadosha, Ukhlishtha Doshas (As.H. Su.20/26-27)

**Classification of Nasya according the Pharmacological action.**

Charaka and Vagbhata have classified Nasya into 3 groups according to their pharmacological action, viz.

- i. Rechana (Virechana) means purificatory.
- ii. Tarpana (Brimhana) means nourishing
- iii. Shamana (retraining)

Sushruta and Sharangdhara have omitted Shamana from this classification and divided Nasya/karma into only two groups, viz: Shirovirechana and Snehana. Kashyapa stated Brimhana and Karshana types of Nasya. All these types can be included into the classification of Charaka.

**1. Rechana Nasya (Virechana Nasya)**

**Definition -**

The Rechana Nasya denotes to elimination of vitiated Doshas from Urdhvajatrugata part of the body. Churna (powder) of

the required drug or the Sneha prepared with the Shirovirechana drugs.

**Drugs -**

Drugs like Apamarga, Pippali, Maricha etc. may be used (Ch. Si.9/96-97). It may also be given with Tikshna Sneha, Kwatha or Swarasa of Shirovirechana drugs or by dissolving these drugs in Madya, Madhu, Sandhava, Asava, Pitta and Mutra or mixed with the drugs specific for those diseases. (A.San.Su. 29/5)

**Indications -**

It is indicated specifically in Kaphaja type of Shiroroga like Stamba, Supri and Guruta of Shira. (Ch.Su.9/93).

Sushruta and Vagbhata have given its other indications as Shleshma Abhivyapta in Talukantha and Shirokrimi, Arochaka, Shula, Shirogarava, Pinasa, Pratishtaya, Urdhvajatrugata Kaphaja Vikara (Su.Ch.40/23). Urdhvajatrugata Shlopha, Praseka, Vairasya, Arbuda, Dadru and Kotha (A.San.Su.29/5).

Rechana Nasya prepared in Sneha is particularly indicated to the atradi, women, weak and delicate patients.

Patients of Galaroga, Samipataja Jwara, Anidra, Manovikara, Abhishyanda Sarpadansha and Murekha may be given Shirovirechana Nasya with Kalka, Churna and Swarasa also, but if the immediate effects is required, then Churna should be used. (As.San.Su.29/6).

**2. Tarpana Nasya :**

Tarpana Nasya of Charaka, Snehana Nasya described by Sushruta and Sharangdhara and Brimhana Nasya mentioned in Ashtanga Sangraha may be considered as the synonyms of

each other. The Sneha prepared with Valapitahara drugs should be used and the drugs of Madhura Skandha (Ch. Vi.8/139) may also be employed (Ch.Si.9/97). According to Vagbhata, Sneha prepared with Shirovirechana drugs or with the drugs described useful for that particular disease should be used. Exudations of certain trees, meat soup and blood also may be administered. (As.San. Su. 29/6)

**Indications -**

It is specifically used for Vaitika Shiroroga, Dantapata, Keshapata, Darunaka and other Valapitaja Roga. Sushruta also advised the use of Snehana Nasya for promoting the strength and increasing the vision power. It is also used for curing the Shirahkampa and Arthia. (Ch.Si.9/94).

**3. Shamana Nasya :**

**Definition -**

As the name indicates, Shamana Nasya is used for the alleviation of Dosha situated in Shitrah (head). Charaka and Vagbhata have described Shamana Nasya only.

It may be correlated with Snehana and Marsha-Praimarsha. The Sneha prepared with the beneficial drugs may be used for Shamana Nasya.

**Indications -**

It is used to stop bleeding in Raktipitta. (Ch.Si.9/95) It is also indicated in Akala Valita, Palita and Kalitya, Darunaka, Rakaraji, Vyanga and Nilika.

**Indications of Nasya**

Nasya therapy may be given in all diseases except in the conditions mentioned earlier. The specific indications of Tarpana Nasya, Shodana Nasya, Shamana Nasya, Shirovirechana, Navana, Avapida, Dhmapana and Dhuma Nasya etc. have already been discussed in the classification of

Nasya, but Charaka has described the following general indications where Nasya therapy should be used.

Shirostambha, Galgadaitva, Ardhavabhedaka Vakgraha, Shirashula Grivaroga, Akshishula Swarabhedha, Shukra Roga-Nerragata Galashundika, Raji-Netra Roga Galashatuka, Timira Galaganda, Vartnaroga Upajivika, Pinasa Manyasambha, Nasa Shula Arthia, Danta Stamba Apatanaka, Danta Shula Apatanaka, Danta Karashula, Danta Chala, Arbuda, Hamyagraha, Skandharoga, Mukharoga, Anasahula

**Suitable time for giving Nasya:**

According to Charaka generally Nasya should be given in Pravrita, Sharada and Vasanti Ritu. However in emergency it can be given in any season by providing artificial conditions of the above mentioned seasons, for example in summer Nasya can be given in cold places and in cold season it can be given in hot places.



Human Nipah virus was first isolated in Malaysia in 1998. It produced mild disease in pigs but 300 human fatalities. Then there occurred outbreaks in Bangladesh starting from 2001 onwards the source of most of which could be traced to fruit bats and ingestion of date palm sap contaminated by secretions from bats.

JAPI



# Role of Laghusutshekhara Rasa in Ardhavabhedaka W.S.R. to Migrain

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Key Words: Ardhavabhedaka, Migraine, Headache, Laghu Sutashekhara Rasa

## Introduction:

In Ayurvedic text, almost all the Acharayas have mentioned Ardhavabhedaka in Shiro-roga. Acharaya Sushruta has mentioned 11 types of Shiro-roga in Uttar Tantra. Ardhavabhedaka is one among them in which paroxysmal unilateral headache associated with pain of varying intensity is seen. Ardhavabhedaka can be scientifically correlated with Migraine due to its cardinal feature "half sided headache" which is also explained by commentator Chakrapani as "Ardha Mastaka Vedana" (Ch. Su. 7/16) and also due to its paroxysmal nature.<sup>2,5,7</sup>

The term "migraine" refers to a syndrome of vascular spasms of the cranial blood vessels. Symptoms of a migraine attack may include heightened sensitivity to light and sound (sonophotophobia), nausea, auras (loss of vision in one eye or tunnel vision), difficulty of speech and intense pain predominating on one side of the head.<sup>18</sup>

Maximum Nidanas show the predominance of Vata dosha. Vata gets provoked by addiction to dry articles or excess of diet or eating on a loaded stomach. The quantity of food to be taken depends upon the power of digestion (Ch.Su.5/3). Though even light food article, if taken in excessive quantity can produce Agnimandhya (Ch.Su.5/7) resulting in Amarasa formation which obstructs the channels and aggravates all the three doshas.

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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 (Ch.Si.8/24-25). Also the various types of pain like Toda, Bheda, etc are suggestive of "Vishama" nature of Vata dosha.<sup>6,7</sup>

In modern science the nidanas 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.<sup>10</sup>

All Shiro-rogas are due to tridosha prakopa and chiefly due to Vata or Vata- Kapha. Thus, Ardhavabhedaka, a sadhya type of Shiro-roga can be best managed with ausadhis having Ushna, Snigdha, etc Vatahara or Vata-Kaphahara properties. Various internal Rasasaddhis like Shirah-shooladi Vajra Rasa, Laghu Sutashekhara Rasa, Navjivana Rasa, etc have been mentioned in Bhaisajya Ratnavali, Rasa Tarangini, etc. For the present study Laghu Sutashekhara Rasa has been selected from the text Rasa Tarangini, which possesses the properties like digestive, anti-oxidant, anti-inflammatory properties and the ingredients like Gairika, Shunthi, betel leaves possesses Vata-Kaphara property.<sup>3,4,9</sup>

## Aim:

To evaluate the role of Laghusutshekhara Rasa in Ardhavabhedaka w.s.r. to Migrain

## Materials & Methods:

### Inclusion criteria:

- 1) Patients in the age group 20 to 60 years, presenting with signs and symptoms of Ardhavabhedaka-Migraine described as per Ayurveda and modern science were included in the study.
- 2) The diagnosis of the disease was done on the basis of clinical manifestations like recurrent attacks of headache, mostly unilateral in site, variable in intensity, frequency and duration with or without nausea, vomiting, aura and GI tract symptoms.

### Exclusion criteria:

- 1) Sinusitis, hypertension, fever.
- 2) Secondary headache caused by meningitis, tumour, encephalitis, cervical spondylitis and refractive errors.
- 3) Patients using any other systemic drugs which may alter the results of study.

Laghusutshekhara Rasa was given in 30 patients 500mg two times per day for 45 days.

### Gradation For Associated 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)

## Results:

- 1) **Age:** The study of incidence of age showed that maximum number of patients were belonging to age group of 21-30 years i.e. 42.90% and 31-40 years of age group was also very common (28.10%).
- 2) **Sex & occupation:** The incidence of sex showed that 75.25% patients were female with 60.81% having occupation as house wives.
- 3) **Religion:** Maximum patients were Hindu (84.09%).
- 4) **Education:** Maximum patients 41.82% were found as graduate. This class of people is conscious about knowledge of triggering factors, recurrence of disease, its period of chronicity.
- 5) **Marital status:** Maximum patients 79.82% were married.
- 6) **Socio-economic status:** The incidence of socio-economic status outcome was that 42.36% of the patients belonged to middle class.
- 7) **Habitat:** The habitat wise distribution showed that 63.36% patients were living in urban area. Here, the disease may be due to their mechanical and speedy life.
- 8) **Family history:** Regarding family history, 62.09% patients had negative family history.
- 9) **Personal history:** Maximum patients were vegetarian (65.64%) with moderate appetite (63.91%) and regular bowel habit (71%). Maximum patients were having addiction of tea (55.09%).
- 10) **Sharirika Prakriti:** Regarding Sharirika prakriti, Vata-Kapha Prakriti was observed maximum i.e., 45.91%.

## Discussion:

Shirah is a main control system of all bodily ailments. Alteration

in the activity of the Shirah influences all body tissues and it is also influenced by body tissues in an inverse order.

Migraine can be a challenging disease to diagnose because it is a clinical diagnosis based on symptoms that are subjective and verifiable only by the patient. Most Migraine headaches are characterized by severe throbbing pain on one or both sides of the head (which may move to the other side), nausea, vomiting, dizziness and visual disturbances caused by dilation and constriction of the blood vessels in the head. Patients from 21-40 yrs of age group, females, housewives, married and middle class people were more prone to Migraine. Migraine sufferers had acute onset with severe intensity and unilateral episodic pain with continuous rhythm. Migraine has a circadian rhythm similar to several diseases of vasoconstriction, such as MI, angina pectoris and ischemic stroke. Most sufferers were taking Analgesics, which suggested that they had never consulted a doctor or have stopped doing so, which shows the chronic nature of the disease. Chronic Migraines may occur from overuse of migraine medications (rebound headache) or may develop over time (transformed migraine).

## Conclusion:

Laghu Sutashekhara Rasa was having significant improvement on all the parameters like Headache, Nausea, Vomiting and on other associated symptoms of the disease Ardhavabhedaka. Ayurveda proved better in the management of the disease i.e., Laghu Sutashekhara Rasa proved to be a good effective therapy in curing the disease. It can be concluded that there is satisfying scope of suggesting these Ayurvedic management as safe and effective procedure for Ardhavabhedaka.

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