

Effect of Chandana Ghrita Nasya in Case of Prathma Patalgata Timira W.S.R. to Simple Myopia

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ABSTRACT:

Nasyakarma is one among the *Panchkarma* procedures in which, the medicated drugs are administered through the nasal route and is indicated specially for the treatment of *Urdhwajatrugarogas*. i.e. the disorders of head and neck. *Pratimarsha Nasya* is a type of *Nasya* in which medicinal drug is administered in smaller dosages and advisable in all age groups and conditions. *Chandana Ghrita* contains *Chandana*, *Goghrita*, *Godugdha*. All these drugs are having *Chakshushya* and *Rasayana* properties. *Chandana Ghrita* is prepared in GMP certified lab in pune, as per classical references and with all precautions. *Chandana Ghrita* is *Madhura- Tikta rasa*, *Madhura vipaka*, *laghu*, *ruksha* and *snigdha guna*. It helps in decreasing the excessive secretions from the mucus membrane of nose, dryness as well as the inflammation of the nose. It is useful in strengthening of the function of eyes, reduces the symptoms related to the disease. A single case study was taken up to access its effects in *Timira* w.s.r. simple myopia. To evaluate the effect of *Nasyakarma* in *timira*.

KEYWORDS: Simple Myopia, *Timira*, *Pratimarsha nasya*, *Snehakalpana*, *Urdhvajatrugata*, *Chandana Ghrita*, *Nasya*.

INTRODUCTION:

Myopia is that dioptric condition of the eye in which, incident parallel rays come to a focus anterior to the light sensitive part of the retina, when accommodation is at rest. Due to this the distant objects seems to blurry and near objects appear normal.

The overall crude prevalence of myopia over last four decade is 7.5% in 5-15 year age group. The prevalence of myopia is 8.5% in urban and 6.1% in rural children, with highest prevalence in urban 11-15- year age group A significant increment in prevalence is noted in the last decade in rural children from 4.6% to 6.8%, reflecting changing rural environment .India is the second most populated country in the world with 41% of the population (492 million) under 18 years of age. While numerous studies have shown an increasing prevalence of myopia worldwide, there continues to be uncertainty about the magnitude of myopia in Indian school going population.¹⁷

There were four population based studies estimated that the prevalence of myopia is 27.7% and hyperopia is 22.9% in India, which increases in school going age and young adults. Globally it is estimated that approximately 1.3 billion people live with some form of vision impairment..Due to

significance of myopia as a global public health concern, it was chosen as a priority for vision 2020, by WHO to treat and avoid blindness by year 2020.¹⁸

As per Guyton's physiology the pathophysiology¹ of this disease is, when the ciliary muscle is completely relaxed, the light rays coming from distant objects are focused in front of the retina. This is usually due to too long eyeball, but it can result from too much refractive power in the lens system of the eye. No mechanism exists by which the eye can decrease the strength of its lens to less than that which exists when the ciliary muscle is completely relaxed. Cause of this disorder of eye is mainly said as the combination of genetic and environmental factors.⁶ Also there seems to be some link with myopia and socio-economic factors. Higher levels of education, better housing, higher individual monthly income, white collar or professional occupation parents, children seem to inherit myopia. Also activities such as reading, writing, computer activities, playing video games have suggested responsible for myopia. Lack of outdoor activities also is one of the major cause.

Symptoms of this disease include blurred vision, distorted vision, eye strain, fatigue when performing near work like studying or driving, headache usually in the evening due to straining and squinting eyes when trying to read far away objects. Refractive power can be neutralized by placing in front of the eye a concave spherical lens in form of spectacles or contact lens, which diverge the rays.

In Ayurveda it is correlated to *Timira* the word *Timira* indicates the darkness. Conditions with gradual loss of vision leading to blindness are considered as *Timira*. As per *Acharya Sushruta Timira, Kacha* and *Linganasha* are three stages of the same disease and in the last stage of these will be complete blindness. *Timira* too is explained in stages, where in the *Doshas* vitiate the *patalas* or layers of eyes which are situated one behind the other. When the first *Patala* i.e. outer most *Patala* is affected. It is mild in nature and gradually inner *Patalas* when gets affected can lead to disorders of serious nature to eyes.

Prathama patalgata timira, is when the vitiated *doshas*, move or get *sthansanshrya* towards eyes, first reach the *Prathama patala* of the eye. The patient will have blurred vision. This is explained as *Avyakta darshana* by *Acharya Sushruta*, *Animittha Avyakta roop darshana* by *Acharya Vagbhatta* and *kadachith roop darshana* by *Acharya Madhava*⁸ if untreated will encroach the second *patala*.

Treatment of this includes *Ghurtapana*, *Nasya*, *Virechana*, *Basti Karma*, *Kriyakalpa* like *Anjana*, *siravyedha* etc. In this study *Pratimarsha Nasya*⁹ with *Chandana ghrita*² is taken up.

MATERIAL AND METHODS:

Chandana Ghrita^{3,4} contains -*Vetta Chandana*, *Goghrita*, *Godugdha*. *Chandana Ghrita* is prepared in GMP certified *Ayush Ayurveda* lab in Pune, as per classical references given in *Raj Nighantu* and *Nighantu Ratnakara* with all precautions.

METHODS:

Patient was advised to administer 2 drops of *Chandana ghrita* into each nostril every morning after bath for 15 days and then came for follow up. After that she was advised to come on 45th Day.

Preparation of *Chandana Ghrita*- Contents-

<i>Vetta Chandana kalka</i>	1 part
<i>Goghrita</i>	8 parts
<i>Godugdha</i>	32 parts

Table 2- Organoleptic characters and Analytical Report of Siddha Ghrita

Test	Results
Appearance	Yellowish coloured oily liquid
Colour	Yellowish
Odour	Sweetish, aromatic
Sp. Gravity	0.936
Saponification value	196
Iodine value	32
Refractive index	1.443

CASE STUDY-

HISTORY OF PATIENT-

A Female patient of age 30 yrs had the main complaint of difficulty in reading far off objects since 2 yrs. Table 3 gives details on complaints and associated complaints of the patient. The onset was gradual over 2 years. She had difficulty in watching the power point presentations from distance and then gradually even from the mid distance from the front. She used to develop watering of eyes whenever she worked continuously on computer screen and mobile phones. Whenever she watched movies specially with subtitles she used to end up in severe headache and excessive tiredness of eyes which used to reduce on keeping cold packs on eyes. She observed that these symptoms gradually increased and she usually did not prefer to work after 5 pm as she observed fatigue. Hence a father of her lady advised to get her eyes checked from doctor and then it observed that she had myopia. As she did not want to wearing spectacles so she approached to me for help.

Table 3- Details of Complaints

Chief complaints/ Associated Symptoms	Onset of Symptoms	Right eye	Left eye	Duration
Diminished of vision	Gradual	+	+	2 years
Tiredness	Gradual	+	+	1 year
Watering of eyes	Gradual	+	+	1 year
Headache on- off	Gradual	+	+	1 year

FAMILY HISTORY-

Both parents and siblings are known to be using correction lens for Myopia.

PERSONAL HISTORY-

She was a non-vegetarian. Bowel was well formed and normal colour and consistency. she got a sound sleep in fact had increased due to fatigue. Micturation was normal. She had a good appetite and got hunger time to time.

PHYSICAL EXAMINATION-

Physical examination showed all the parameters in normal limits. As per *Ayurveda Ashtavidha Pareeksha* is given in the Table 4.

Table 4- Ashtavidha Pareeksha

<i>Nadi</i>	<i>70/min</i>
<i>Mootram</i>	<i>Prakruta</i>
<i>Mala</i>	<i>Prakruta</i>
<i>Jihwa</i>	<i>Anupalipta</i>
<i>Shabadam</i>	<i>Prakruta</i>
<i>Sparsha</i>	<i>Prakruta</i>
<i>Drik</i>	<i>Dosha in drushti</i>
<i>Aakruti</i>	<i>Prakruta</i>

EXAMINATION OF EYES- (NETRA- PARIKSHANA):- Table.5-

❖ **MANDALAS-**

<i>MANDALAS</i>		<i>RE</i>	<i>LE</i>
<i>PAKSHMA (EYE LASHES)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>VARTMA (EYE LID)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>SHUKLA</i>	<i>CONJUNCTIVA</i>	Mild congestion	Mild congestion
	<i>SCLERA</i>	<i>Prakruta</i>	<i>Prakruta</i>
<i>KRUSHNA (CORNEA)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>TARAKAMANDAL (IRIS)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>PURVAVESHMA (ANT. CHAMBER)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>DRUSHTIMANDAL (PUPIL)</i>		Reacting to light	Reacting to light

❖ **SANDHI-**

<i>SANDHI</i>		<i>RE</i>	<i>LE</i>
<i>PAKSHMA-VARTMA (LID MARGIN)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>VARTMA-SHUKLA (FORNIX)</i>		Watering+	Watering+
<i>SHUKLA- KRUSHNA (LIMBUS)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>KRUSHNA-DRUSHTI (PUPIL)</i>		Photophobia	Photophobia
<i>KANINIK (INNER CANTHUS)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>APANGA (OUTER CANTHUS)</i>		<i>Prakruta</i>	<i>Prakruta</i>

❖ **PATALA-**

<i>PATALA</i>		<i>RE</i>	<i>LE</i>
<i>BAHYA PATALA</i>	<i>URDVAVARTMAPATALA</i>	<i>Prakruta</i>	<i>Prakruta</i>
	<i>ADHARVARTMAPATALA</i>	<i>Prakruta</i>	<i>Prakruta</i>
<i>PRATHAMA PATALA (TEJOJALASHRITA PATALA)</i>		<i>Avyakta darshana</i>	<i>Avyakta darshana</i>
<i>DVITIYA PATALA (MANSASHRITA PATALA)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>TRITIYA PATALA (MEDASHRITA PATALA)</i>		<i>Prakruta</i>	<i>Prakruta</i>
<i>CHATURTHA PATALA (ASTHIMAJJASHRIT PATALA)</i>		<i>Prakruta</i>	<i>Prakruta</i>

FUNDOSCOPIIC FINDINGS-

- MEDIA- Clear
- OPTIC DISC- Physiological cupping present
- COLOUR- Pale
- C.D. RATIO- Normal, Myopic crescent present
- BLOOD VESSELS- Normal
- MACULAR F.R.- Clear

Functional examination of eye was done using snelln’s chart and Auto refractor.

Table 6- Vision test 1- Before treatment

Date	Treatment Progress (Day)	Right eye (D.V.)	Left eye (D.V.)
27/4/23	Before Treatment Day 0	6/18 Partial	6/18

OBSERVATION-

Patient had felt the difference in one week of the treatment. She had felt the soothing effect on eyes. Watering of eyes was absent within one week of application. The symptom of tiredness of eyes had disappeared within a span of 15 days of application. Also patient had felt physically active and had feeling of lightness in *Urdhwajatru*. As an added benefit the headache and hair fall was decreased in the patient. On 45th day of treatment vision test was repeated with using Snelln’s chart and Autorefractor. Observations are given in table 7.

Table 7- Vision Test 2- After Treatment

Date	Treatment Progress (Day)	Right eye (D.V.)	Left eye (D.V.)
11/6/23	During treatment Day 45	6/12	6/9 partial

FIGURES-



Figure1- All the contents are mixed



Figure 2- During the Paka



Figure 3- Siddha Chandana Ghrita



Figure 4- Packed sterile container



Figure 5- Packed Chandana Ghrita in Nasya Bottle

RESULTS -

Ayurveda says that the cause for the *Prathama Patalgata Timira* is due to vitiation in the *Rasa and Rakta Dhatu*¹⁵ by the doshas which has vitiated due to improper food habits. As per *Acharya Nimi* the cause for the *Timira* is get gradually increases¹⁵ then there will be gradual growth of doshas, it is painless and hence it get neglected (*Upekshitha*). Hence there will be further accumulation of *doshas*. These doshas get stable in that area and later on will not allow even the medicines to penetrate through. At last it can end up in the blindness. Therefore there is need for effective medicine for this disorder. People in this world are too busy they can't afford long treatment procedures. So a *Pratimarsha Nasya* with a *Chandana Ghrita* having classical reference is the effective medicine for Myopia. *Chandana Ghrita* having *Chandana*, *Goghrita* and *Godugdha*. All these drugs are having *Chakshushya* and *Rasayana* properties^{12,13}. They provide strength and improve the functions of eyes. The eye muscles gain strength and nourishment through the drug *Chandana Ghrita*. The role of *nasyakarma in timira* is also effective. Route of administration is *Nasa* i.e. through the nasal route. It is the door of the *shira*. Also it is nearest opening to the eyes hence it causes important role in the improvement of the patient.

CONCLUSION-

1. The treatment is very easy to perform.
2. The study concludes that *Chandana Ghrita Nasya* is effective in the management of Simple Myopia. watering, headache, tiredness are also reduced.
3. Further studies with larger group of patients and on different severity of myopia has to be done to prove and document the efficacy of *Chandana Ghrita*.

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