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Significance of Selection of *Ghrita* in *Netra Tarpana*

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ABSTRACT

The eye is one among the main sense organ of human beings. In Ayurveda, the importance of an eye has been stated with a quote “*Sarvendriyaanaam Nayanam Pradhaanam*”. It is composed of *Panchamahabhutas* with a dominance of *Tejo Mahabhuta*. Eye is a seat of *Alochaka Pitta- Chaksurvaisheshika Alochaka Pitta*. *Netra Tarpana* is considered as one of the best and important among *Netra Kriyakalpas*. *Tarpana* is considered to be the best purification and rejuvenation procedure for the eye. It is the specialized and effective treatment for various eye diseases. There is a great need for an effective ocular therapy for the prevention, mitigation and treatment of eye diseases having no or very least adverse effects. For many *Netra Rogas*, *Netra Tarpana* is considered as best treatment. For *Tarpana*, selection of *Ghrita* for the procedure carries prime importance. The *Ghrita* should be selected based on the *Vyadhi* and *Dosha Dushti*. In this article, the principle behind the selection of *Ghrita* for various eye diseases is discussed.

Key Words *Netra Tarpana, Kriyakalpa, Ghrita, Netraroga Chikitsa, Eye diseases, Mahatriphala Ghrita, Tiktaka Ghrita*

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INTRODUCTION

The eyes are considered to be the most supreme among all sense organs. It is described by *Acharya Sushruta* in detail. *Sushruta* has written 19 chapters in *Uttaratantra* explaining about the preventive, surgical and medical aspects of *Netra*. It is an organ for *Indriyajanya Gnyana* (sensory knowledge) which is considered to be the source of *Pratyaksha Gnyana* (direct perception). Eye is *Panchabhautika* in nature with a dominance of *Tejomahabhuta (Agni Mahabhuta)*, therefore *Netra* has always a threat

from *Kapha Dosha (Jala and Prithvi Mahabhuta)*, which has exactly opposite qualities to that of *teja mahabhuta*¹. Eye is the seat of *Chaksurvaisheshika Alochaka Pitta*.

As per *Acharya Vagbhata*, sincere efforts are made by every person to preserve one's own vision till his last breath of life, because for an individual who is blind, both day and the night are the same and this beautiful world is of no use to him even if he possesses a lot of wealth. Although modern medical science has made remarkable progress in the field of

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ophthalmology in recent era, the significance of ayurvedic treatment in the eye diseases cannot be ignored.

For instance, *Basti Chikitsa* is considered to be the *Chikitsardha* in *Kayachikitsa*, *Rakthamokshana-Chikitsardha* in *Shalyachikitsa*, similarly *Netra Kriyakalpas* form *Chikitsardha* in *Shalakyachikitsa*. *Netra Kriyakalpas* are meant to subside or alleviate the *Sthanika khavaigunya* (*Srotovaigunya*) caused by the vitiated *Doshas* & their impact on *Netra- Avayavas* (different structures of eye). They can also be practiced as *Swasthya Samrakshaka Prayoga* as a part of *Dinacharya* and *Rithucharya* (*Swasthavritta*) to maintain functional integrity of the sense organs & overcome age related diseases. *Kriyakalpas* includes *Seka*, *Aschyothana*, *Anjana*, *Tarpana*, *Putapaka*, *Bidalaka*, and *Pindi*². Among these *Kriyakalpas*, *Netra Tarpana* is the foremost and important procedure for eye disorders.

Netra means eyes and *Tarpana* means nourishment. *Netra Tarpana* is a procedure where in the lukewarm medicated *Ghrita* or *Ghritamanda* is made to stay stagnant in the eyes for a stipulated time period in a specific formed frame. *Netra Tarpana* act as both preventive as well as curative therapy for various eye disorders. It has been used from the ancient era in ayurveda for maintaining and improving the vision and is highly beneficial in people who work late in front of the computers and on various machineries that directly affects the eyes. It is the most common *Kriyakalpa* which is extensively used in *Netra*

practice. It nourishes the eyes, improves & strengthens the *Drushti Shakti*.

In Ayurveda, Ghee is considered with utmost importance in every aspect of treatment. A literature study has been carried out to describe its usefulness in *Drushti Prasadana Guna* (clarification of vision) and to understand the rationale behind usage of *Ghrita* in *Netra Tarpana*. Ghee has a special power of penetrating into the minute channels. Hence, it clarifies the vision. It also has two important properties namely *Yogawahi Guna* (ability to spread rapidly throughout the body) and *Sanskaraanuwarthana Guna* (ability to acquire the properties of a mixed drug while retaining its own properties without any change). Ghee enhances the therapeutic effect of other herbal drugs by mixing with them, without harming its own qualities. In *Netra Tarpana*, the therapeutic action of ghee is seen in two ways. They are; more absorption of the drug by cornea and less convergence of light rays by adjusting the corneal refractive index by giving direct pressure from the drug³. The drugs used in *Tarpana* procedure is the combination of *Ghrita* and decoction of herbal medicines, hence the drug can easily cross and absorbs in the corneal epithelium (being *Ghrita* lipophilic) and corneal endothelium (being hydrophilic). Also due to more contact time, the active components of drug used will be absorbed more to cure various eye diseases. The *Ghrita* with decoction of medicines has the quality of penetrating into minute channels of the body, hence when applied in the eyes, it cleans every minute part by entering into

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the deeper layers of *Dhatus*. This study was aimed to make an outlook on significance and concept behind selection of *Ghritas* in various eye diseases.

INDICATIONS FOR TARPANA KARMA:

- *Tamyati* (When a patient sees darkness in front of eyes)
- *Ativishushka* (Dryness of the eyes)
- *Atiruksha* (Roughness of the eyes)
- *Sheerna Pakshma* (Falling of eyelashes)
- *Avila* (Blurriness of vision)
- *Jihma* (Deviated eyeball or squint)
- In extreme aggravation of the diseases of the eye
- Injury/traumatic condition of eye
- *Vata –Pitta* predominant eye diseases⁴

Vagbhata has added a list of diseases specifically selected for *Tarpana Karma*. They are *Kricchronmilana* (difficulty in opening eyes), *Siraharsha* (congestion of conjunctival blood vessel), *Sirotpata* (episcleritis), *Tama* (blackout), *Arjuna* (subconjunctival haemorrhage), *Syanda* (conjunctivitis), *Adhimantha* (glaucoma), *Anayatovata* (referred pain in the eye or sphenoidal sinusitis), *Vataparyaya*, *Avrana Shukra* (corneal opacity)⁵.

CONTRAINDICATIONS FOR TARPANA KARMA:

According to *Acharya Sushruta*, *tarpana* is not indicated:

- *Durdina* (On a cloudy day)
- *Atiushnasheeta* (Extreme hot or cold seasons)
- *Chinta* (In conditions of worries and anxiety)

· *Aayasa, Bhrama* (In conditions of tiredness and giddiness of eyes)

· *Ashanta Upadrava* (If complications of eye diseases won't subside)⁶

PRIME INDICATIONS OF TARPANA:

- Computer vision syndrome
- Dry eye syndrome
- Non-specific corneal Disorders
- Allergic conjunctivitis
- All types of glaucoma
- Early cataract
- Degenerative disorders e. - Age related macular degeneration
- Refractive errors
- Diabetic Retinopathy
- Hypertensive Retinopathy
- Optic Neuritis

TARPANA DRAVYA

All *Sneha Dravyas*

1. *Sarpi* 2. *Majja* 3. *Vasa* 4. *Taila*

TARPANA VIDHI

This procedure is divided into three parts

a) *Purvakarma*

b) *Pradhanakarma*

c) *Paschatkarma*

a) *Purvakarma*

1. Before *Tarpana*, *Samyak Kayika* and *Shira Shodhana* to be done.

2. *Netra Swedana* to be done with luke warm water.

b) *Pradhanakarma*

1. The patient is made to lie in the room which is *Vata-Aatapa-Rahita*.

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2. A dough using gram flour is made which is to be placed around the both eyes. Precaution to be taken so that the medicine should not spill from the dough.
3. The luke warm medicated *Sneha Dravya* or *Ghruta* is poured into it and made it stay for 5 minutes, then replace the *Dravya*.
4. This procedure is to be performed for 20-25 minutes.

c) Paschatkarma

Table 1 Snehadharana Kala According to Dosha Prakopa:

DOSHABHEDHA	SUSHRUTA SAMHITA	ASHTANGA HRIDAYA	SHARANGADHARA SAMHITA	BHAVAPRAKASHA
Healthy eye	500	500	500	500
<i>Kapha</i> predominance	600	500	500	500
<i>Pitta</i> predominance	800	600	-	600
<i>Vata</i> predominance	1000	1000	1000	1000

Table 2 Snehadharana Kala According To Adhishtana Of Diseases:

ADHISHTANA	SUSHRUTA SAMHITA	ASHTANGA HRIDAYA	SHARANGADHARA SAMHITA	BHAVAPRAKASHA
<i>Sandhigata</i>	300	300	500	500
<i>Vartamagata</i>	100	100	100	100
<i>Shuklagata</i>	500	500	600	-
<i>Krishnagata</i>	700	700	700	700
<i>Drishtigata</i>	800/1000	800	800	800
<i>Sarvagata</i>	1000	1000	1000	1000

SAMYAK TARPITA LAKSHANA

- Sukhaswapna* - good (sound) sleep
- Avabodhatva* - blissful awakening
- Vaishadhya* - clearness of the eyes
- Varnapatava* - discernment of individual colours
- Nivriti* - feeling of comfort
- Vyadhividhvansa* -cure of the disease
- Kriya Laghava* - easiness in closing and opening the eyes
- Prakasha Kshamata* - ability to withstand bright light¹¹

ATI- TARPITA LAKSHANAS:

1. *Sneha Dravya* is removed along with the dough, should be washed with *Ushnodaka* and *Pottali Swedana* is done.

2. After that, *Kaphaghna Shirovirechana* or *Dhoomapana* is done for *Kapha Shodhana*⁷.

SNEHADHARANA KALA OR PERIOD OF RETENTION OF GHRITA:

Snehadharanakala is implimented considering *Adhishthana* of diseases & Severity of *Dosha Prakopa*^{8,9,10}.

·*Netragaurava* - heaviness in eyes

·*Avilata*– indistinct vision

·*Atisnigdhatva* -excessive oiliness

·*Ashru Srava* - lacrimation

·*Kandu* - itching

·*Upadeha* - stickiness

·*Dosha-Samutklisha* - aggravation of *dosha*¹¹

HEENA TARPITA LAKSHANAS:

·*Netrarukshata* - dryness of eye

·*Avilata* - indistinct vision

·*Ashrusrava*– lacrimation

·*Asahyam Roopadarshan*- difficulty in vision

·*Vyadhivridhi* - aggravation of disease¹¹

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Table 3 Selection of ghrita in Tarpana Depending Upon Various Eye Diseases

SL.NO	EYE DISEASES	GHRITAS USED FOR TARPANA
1.	a) <i>Timira</i> (refractive errors) b) <i>Shushkashipaka</i> (~dry eye syndrome) c) Age related macular degeneration d) Optic neuritis e) Computer vision syndrome f) <i>Anyatovata</i> g) <i>Nayana Abhighata</i> h) <i>Naktaandhya</i> (night blindness) i) Early cataract j) Glaucoma	<ul style="list-style-type: none"> ● <i>Mahatriphala Ghrita</i> ● <i>Jeevantyadi Ghrita</i> ● <i>Yashtimadhu Ghrita</i> ● <i>Shatavari Ghrita</i> ● <i>Ksheera Sarpi</i>
2.	a) <i>Abhishyanda</i> (conjunctivitis) b) <i>Arjuna</i> (episcleritis) c) <i>Siraajala</i> (scleritis) d) Diabetic retinopathy (NPDR) e) <i>Savrana Shukra</i> (~ corneal ulcer) f) <i>Avrana Shukra</i> (~corneal opacity)	<ul style="list-style-type: none"> ● <i>Tiktaka Ghrita</i> ● <i>Mahatiktaka Ghrita</i> ● <i>Patoladi Ghrita</i>

DISCUSSION

In cornea, both the epithelium and endothelium is lipid permeable (lipophilic) whereas stromal layer is hydrophilic. Hence the lipophilic and hydrophilic drugs are effectively delivered to cornea. The drugs used in *Tarpana* procedure is mainly the combination of *Ghrita* and decoction of herbal medicines, hence the drug can easily cross and absorbs in the corneal epithelium (being lipophilic) and endothelium (being hydrophilic). Also due to more tissue contact time, the active component of drug will be absorbed more to cure various eye diseases. The *Ghrita* being lipophilic, it facilitates the transportation of the drug to the target part or organ and finally reaches the cell because the cell membrane also contains lipids in it. This phospholipid nature of medicine facilitates the entry of the drug into the structures of eye ball through the corneal surface. Since the corneal epithelium is permeable to lipid soluble substances (lipophilic) and lipophilic substances

easily crosses the corneal epithelium irrespective of the molecular size. The medicine preparations used in *Netra Tarpana* is in the form of *Ghrita* containing different herbal medicine and the particles do not leave the eye as quick as that of solution. Tissue contact time and bioavailability is more and because of that, the therapeutic concentration is achieved by *Netra Tarpana*. This facilitates the action of drug by two ways, that is by allowing more absorption of the drug by the corneal surface and by exerting direct pressure upon the cornea¹².

The selection of *Ghrita* in *Tarpana* carries great importance to combat various eye diseases. In diseases like *Timira* (refractive errors), *Shushkashipaka* (~dry eye syndrome), Age related macular degeneration, Optic neuritis, Computer vision syndrome, *Anyatovata*, *Nayana Abhighata* etc *Vatahara*, *Madhura Rasa* and *Snigda Guna Dravyayukta Ghrita* like *Mahatriphala Ghrita*, *Jeevantyadi Ghrita*, *Yashtimadhu Ghrita*, *Shatavari Ghrita*, *Ksheera*

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Sarpi should be selected whereas in diseases like *Abhishyanda* (conjunctivitis), *Arjuna* (episcleritis), *Siraajala* (scleritis), Diabetic retinopathy (NPDR), *Savrana Shukra* (~corneal ulcer), *Avrana Shukra* (~corneal opacity) etc *Pittakaphahara*, *Tikta Rasa*, and *Ruksha Guna Dravyayukta Ghrita* like *Tiktaka/ Mahatiktaka Ghrita*, *Patoladi Ghrita* should be selected. Thus, the medicated *Ghrita* should be selected depending upon the *Lakshanas*, *Dosha* and *Vyadhi* involved.

CONCLUSION

Netra Tarpana is most often recommended practice and is most popular in Ayurveda *Netraroga Chikitsa*. *Netra Tarpana* may help to nourish eyes, increases blood circulation to the affected part, gets rid of *Dosha* vitiation, strengthens the muscles in that area, and helps in maintaining and improving the eye sight. In spite of remarkable progress in the field of modern ophthalmology, there are some limitations. Ayurveda, the ancient literature of medicine gives valuable concepts and guidelines not only in treatment aspects but also in preventive aspect. Being one among *Netra Kriyakalpa*, *Netra Tarpana* helps to maintain vision in *Swastha* and also helps to cure different eye diseases.

To treat the eye diseases effectively, the *Ghrita* for *Netra Tarpana* should be selected according to the *Dosha* and *Vyadhi* involved.

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