

Netra Tarpana - An Efficacious rejuvenate local medication of Eye and Standardizing Samayak Tarpita lakshana of Netra with the help of Questionnaire.

Abstract

Ayurved is one of the great gifts of the sages of ancient India to mankind. It is not only a system of medicine in the conventional sense of curing disease but also a way of life that teaches us how to maintain & protect health. *Kriyakalp* is the main therapeutic process for *Netra rogas*. *Kriyakalp* means the procedures in which various drugs are applied in & around the eye ball as a treatment modality. the importance of *Ayurvedic* treatment in the diseases of eyes cannot be ignored. There is a great need to find out an ocular procedure for prevention and treatment of eye diseases having no or least adverse effect. *Tarpan karma* is one of the local therapeutic procedures which if promptly used shows objective evidences of excellent responses. In this Article there is a review on *Netra Tarpana Karma*, their indications, contraindications and possible mode of action , Standardiging *Samayak Tarpita Lakshan* with the help of Questionnaire.

Questionnaire is discussed with expert, we discussed action and we have finalized the Questionnaire with the Stalwarts of *Shalaky Tantra*.

Keywords: *Kriyakalpa, Ttarpana, Samyak Tarpita Lakshana, Standardized Questionnaire.*

Introduction

Ashtang Ayurved denotes eight different branches of *Ayurved* in which *Shalakyatantra* is one of the most important branch dealing with *Urdhvajatrugat vikara*. *Netra* is one of the most important *Dyanendriya*. Hence it is very essential to maintain the *Swasthya* of *Chakshu Indriya*. For this different therapeutics (*Kriyakalpa*) are mentioned in classics.

'Swasthasya swasthyarakshanam aturasya vikarprashaman ch' ^[1]

Therapeutic is defined as the branch of medicine concerned with the treatment of disease and the action of remedial agents or a therapy, or drug. *Ayurvedic* therapeutics (*Kriyakalpa*) helps in maintaining *Swasthya* and to cure diseases.

Kriya = Therapeutic action ***Kalpa*** = specific formulation of medicines.

Eyes are the only organ in the body which receives separate Treatment modality like *Kriyakalpa* as a *Bahyaparimarjan Chikitsa* and no other organs are individually receives the treatment modalities like *Kriyakalpa* on eyes. *Tarpana karma* is one of the local therapeutic procedures

which if promptly used shows objective evidences of excellent responses. *Tarpana* is usually practiced *Kriya* in *Netra Chikitsa* which is *Brimhana* (nourishing) in nature.^[2]

□ *Kriyakalpa* are numbered are as follows along with their references

Classification of Kriyakalpa:

Sr. No.	Samhita Name	Reference	Adhyaya Name	Number of Kriyakalpa	Names of Kriyakalpa
1.	<i>Charak Samhita</i> ^[3]	<i>Charak Sutrasthan</i> 26/231	<i>Trimarmeeya Chikitsa</i>	3	<i>Bidalaka, Ashyottana, Anjanam</i>
2.	<i>Sushruta Samhita</i> ^[4]	<i>Sushrut Uttartantra</i> 18	<i>Kriyakalpa Adhyaya</i>	5	<i>Seka, Aschyottana, Tarpan, Putpaka, Anjanam</i>
3.	<i>Ashtang Hridayam</i> ^[5]	<i>Ashtang Hridaya Sutrasthan</i> 23 & 24	<i>Aschyottan Anjanvidhi, Tarpanputpaka Vidhi</i>	5	<i>Seka, Aschyottana, Tarpan, Putpaka, Anjanam</i>
4.	<i>Ashtang Sngraha</i> ^[6]	<i>Ashtang Sngraha Sutrasthan</i>	<i>Aschyottananjan vidhi, Tarpanputpaka Vidhi</i>	5	<i>Seka, Aschyottana, Tarpan, Putpaka, Anjanam</i>
5.	<i>Sharandhar Samhita</i> ^[7]	<i>Sharandhar Samhita Uttarkhanda</i> 13	<i>Netraprasadanvidhi</i>	7	<i>Seka, Aschyottana, Pindi, Bidalaka, Tarpan, Putpaka, Anjanam</i>
6.	<i>Chakradatta</i> ^[8]	<i>Chakradatta</i> 76	<i>Netraroga Chikitsa</i>	7	<i>Seka, Aschyottana, Pindi, Bidalaka, Tarpan, Putpaka, Anjanam</i>

7.	<i>Yog Ratnakar</i> ^[9]		<i>Netrarog Adhikar</i>	7	<i>Seka, Aschyottana, Pindi, Bidalaka, Tarpan, Putpaka, Anjanam</i>

Tarpana karma:-

Purva Karma (Pre-treatment procedure) –^[10]

1. Preparation of the patient:

- The parson is thoroughly examined.
- Explain the person about procedure.

2. Preparation for the treatment:

Materials:- *Ghruta* (medicated ghee) , Flour of black gram for the construction of *Netra Tarpana* socket (ring/cabinet), Water ,Stove, bowls, vessels, spoons Sterile cloth / cotton etc.

Immediate *Purvakarma*'s:

- ***Kaya Shuddhi*:** Body cleansing (purifying, detoxifying) measures including – *Vamana* – therapeutic emesis (vomiting) and *Virechana* – therapeutic purgation
- ***Shiro-Shuddhi*:** Head cleansing measure (treatments meant for purifying and detoxifying head and sense organs) i.e. *Nasya* or *Shiro-virechana* (Nasal instillation of medications)

3. Preparing the flour ring or cabinet -- Flour of black gram will be mixed thoroughly in a sterile vessel by adding water and little. The mixture is made into a bolus. From this, 2 small rings so as to fit around the eye socket are prepared. That means to tell that the inner circumference of the ring will fit on the boundary of the socket of the eye so as to enclose the eye within it. The height of the ring should be of 2 *angula*'s ^[11] (1 *angula*=1.75 cm approximately).

Small quantity of prepared flour should be kept in a small bowl. This would be useful to seal the junction of the ring with the socket of the eye so as to prevent leakage of medicaments.

4. Preparing the medicine – The ghee which would be used for *Netra Tarpanam* shall be liquefied and kept lukewarm. For this, the required quantity of ghee is put in a small sterile bowl. The small bowl is placed in a big vessel having hot water. After the *Ghrita* gets melted its temperature should be checked. The medicine should be administered lukewarm.

5. Fomentation – A gentle fomentation is given to the eyes with cloth dipped in warm water before the treatment. The water shall be wiped off with a sterile cloth or cotton before constructing the Tarpana ring.

Pradhana Karma (Treatment proper) –^[11]

After explaining the method of treatment to the patient in detail, he or she shall be taken to a place devoid of heavy breeze or air to conduct *Akshi Tarpana* treatment.

1. Season and Time of Tarpana treatment:

The treatment shall be done in '*Sadharana Kala*' i.e. in a season which is neither too hot nor too cold and when there is no rain or sky enveloped with clouds.

The treatment should be conducted either in the morning time or evening time or at both times if the condition of the disease demands an extra attention

2. Position of the patient: The patient is made to sleep supine (on the back or facing the roof). He or she shall be given a neck support.

3. Construction of Netra Tarpana cabinet (ring) around the eye:

The rings of flour which were kept ready in the *Purvakarma* are inserted over the eye sockets, (one on each eye) such that the eyes are enclosed within their respective rings. The junctions of the rings with eye sockets are sealed with wet flour so that the medicament doesn't leak or escape during the process of the treatment.

4. Filling the Tarpana Ring with medicine – The medicated *ghee (ghrita)* which was melted and kept warm in the *Purvakarma* is gently poured in the Netra Tarpana cabinets such that the eyes are dipped within the medicine. The patient is advised to close the eyes while dropping the medicine in the ring. Later he or she is instructed to open and close the eyes repeatedly so that the interior of eyes come into the contact of the medicines intermittently. The medicaments are left in place for a fixed duration of time. The patient might experience burning sensation during the process of the treatment but he or she should be intimated that it is quiet natural to happen. The irritation will come down once the medicines are removed.

Duration of Tarpana^[12]

<i>Doshabhedha</i>	<i>Sushrut Samhita</i>	<i>Ashtang Hridya</i>	<i>Sha. Samhita</i>	<i>Bhav prakash</i>
Healthy eye	500	500	500	500
<i>Kapha pradhan</i>	600	500	500	500
<i>Pitta pradhan</i>	800	600	600	-
<i>Vata pradhan</i>	1000	1000	1000	1000

According To Adhishtana

<i>Dosha bhedha</i>	<i>SushrutSamhita</i>	<i>Ashtang Hridya</i>	<i>Sha. Samhita</i>	<i>Bhav prakash</i>
<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

Note:

Matra Kala is the time required to count the mentioned number ex. 100 *Matra Kala* is the time needed to count the numbers 1-100. 1 *matra kala* is also explained as time required for spelling or pronouncing a *guru akshara* (difficult alphabet). It is also the time taken to draw a circle in air around the knee and making a click sound with the help of thumb and middle finger.^[13]

In all cases, it is preferable to do *Tarpana* until *Samyak Trupta Lakshana*'s are obtained (signs of properly administered *Tarpana*)

***Paschat Karma* (post treatment procedures) –^[14]**

- 1. Removing the medicine** – The medicine is removed by creating a small hole in the lower portion of the wall of the flour ring at the outer angle of the eye and draining the contents in a bowl. Alternately, the wall of the ring is broken at the outer canthus (outer angle of the eye) and the contents are drained in a bowl.
- 2. Wiping the eyes and the surrounding area** – The medicines sticking to the eye and the sockets are swabbed out by wiping them off with the help of a sterile cotton pad or a tissue paper. Later the eyes can be wiped off gently with a sterile cloth dipped in warm water or the same cloth is used to give a gentle fomentation to the eyes.
- 3. *Dhumapana*** – Herbal Smoking should be given to eliminate the *Kapha* which has been exaggerated due to the administration of *Ghrita* and or *Ghrita Manda* in *Netra Tarpana*
- 4. *Virechana Nasya* or *Shiro-virechana*** – Purgatory / strong and intense nasal medications are instilled and it serves the same purpose of *Dhumapana*. *Nasya* can be altered with *Dhumapana* (used purely on the decision of the doctor)
- 5. *Putapaka*** – After the *Netra Tarpana*, a procedure called *Putapaka* is done. The eyes get tired after *Tarpana*. *Putapaka* is done to ward off the tiredness. The method of treatment is similar to that of *Netra Tarpana*. *Mamsarasa* (meat-soup), *Dugdha* (medicated milk), *Ghrita* (medicated ghee), *Vasa* (muscle fat) etc extracted by the process of *Putapaka* is used as fill up.

Indications of *Netra Tarpanam* –^[15]

- *Tamyati* – feeling of darkness in front of eyes (also due to irritation after exposure to light)
- *Ati vishushkam* – excessive dryness of the eyes
- *Ati daruna* – eyes appear to have hardened
- *Sheerna pakshma* – eye lashes falling down
- *Aavila netram* – dirtiness of eyes
- *Jihma netram* – abnormal deviation of eye ball
- *Roga klishitam* – eyes which have been constantly and repeatedly afflicted and debilitated due to many diseases

Contra-indications of Netra Tarpana ^[16]

- *Durdina* – cloudy day
- *Atyushna dina* – very hot day
- *Ati sheeta dina* – very cold day
- *Chinta* – person who is mentally worried
- *Aayasa* – after physical exhaustion
- *Bhrama* – giddiness
- *Ashanta upadrava* – when complications like inflammation, redness, severe pain etc persists in the eye.

Samyak Trupta (Tarpana) Lakshana (Signs of properly done Tarpana): ^[17]

“तर्पणे तृप्तिर्लिंगानि नेत्रस्येमानि लक्षयेत् ।
सुखस्वपनावबोधत्वं वैशद्यं वर्णं पाटवम् ।
निवृत्तिव्याधिविध्वंसः क्रिया लाघवमेव च ।”

(सु. उ. अ- १८/१३)

- *Prakasha Kshamata* – Tolerance to light (eye can tolerate light falling on it)
- *Vishada lochanam* – clarity of vision
- *Laghu lochanam* – feeling of lightness in the eyes
- *Sukha svapna* – good sleep
- *Sukha avabodhatvam* – good awakening
- *Varna patavam* – proper perception of all the colours from the eye and proper establishment of normal colours in the mandala's of the eye (layers) like the white of the eye (sclera) regains its white colour etc.
- *Nirvritti* – establishment of pleasure and health in the eye

- *Vyadhi vidhwamsa* – destruction of eye diseases
- *Kriya laghava* – activities of the eye like closure and opening of lids etc take place easily

Atrupta Lakshana (Signs of improperly or deficiently done Tarpana):^[18]

- *Prakasha Akshamata* – Intolerance to light
- *Avishada lochana* – Lack of clarity of eye and vision, feeling as if the vision has been clouded
- *Guru lochana* – heaviness of the eye
- *Svapna nashanam* – loss of sleep
- *Varna patava akshamata* – inability to perceive colours
- *Anivritti* – sick eyes

Other symptoms:^[19]

- *Ruksham* – dryness of the eye increases
- *Aavilam* – increase of dirtiness of the eye
- *Asraadyam* – excess of tearing of eye
- *Rupa darshanam asaham* – inability of perceiving the objects of vision
- *Roga vriddhi* – increase in disease and their symptoms

Ati Trupta Lakshana (Signs of overly-done Tarpana):^[20]

- *Guru netrata* – heaviness of eye
- *Avimalam* – dirtiness of eye
- *Atisnigdham* – excessive unctuousness or oiliness of eye
- *Ashru* – excessive lacrimation (tearing of eyes)
- *Kandu* – itching of eyes
- *Upadeha* – coating in the eyes
- *Dosha samutklishtam* – aggravation of vata etc doshas

Medicines used for Netra Tarpana:

- *Triphala Ghritam*
- *Jeevantyadi Ghritam*
- *Mahatriphla Ghritam*

- *Yashtimadhu Ghritam*

Tarpana therapy benefits:^[21]

- *Nayane Tamyati* – Feeling of darkness in front of eyes (also due to irritation after exposure to light)
- *Stabdha netra* – Feeling of stiffness or rigidity in the eyes
- *Netra shushkata* – Extreme dryness of the eyes
- *Abhighata* – Injury to the eye
- *Vata pittaja roga* – Diseases of the eyes caused due to aggravation of Vata and Pitta
- *Jihma netram* – abnormal deviation of eye ball
- *Sheerna pakshma* – eye lashes falling down
- *Aavila Akshnam* – dirtiness of eyes
- *Krichra unmilana* – Difficulty to open or close the eyes
- *Siraharsha* – A type of cellulitis (Acute orbital cellulitis) occurring in the eyes
- *Sirotpata* – Hyperaemia of conjunctiva
- *Arjuna* – Phlyctenular conjunctivitis
- *Abhisyanda* – Conjunctivitis
- *Adhimantha* – Glaucoma
- *Anyatovata* – Hyperaemia of conjunctiva
- *Vata paryaya* – Atrophy of the cranial nerves
- *Shukra* – Keratitis or inflammation of cornea
- *Ragadi shantata* – After pacification of Redness of eyes, tearing, pain, irritation and dirt.

Probable mode of the action of Tarpana

- First of all *Sthanika mrudu snehana & swedana* was given (this could have helped in dilation of conjunctival sac & limbal vessels which in turn helps in better absorption)
- Topically instilled medications largely penetrate intraocularly through the cornea.
- The cornea epithelium & endothelium are lipophilic and are crossed readily by lipid soluble drug.
- The active principles in medicated *ghruta* easily gain entry through corneal epithelium irrespective of their low molecular size
- Duration of *tarpana* upto **10 mints** approx.
- *Ghruta* is highly viscous the contact time is increased & this helps penetrating of drug through cornea
- The drug absorbed through cornea & enters into the anterior Chamber & they enter the capillaries & reaches ophthalmic arteries.
- The active principle of medicated *ghruta* reaches central nervous system & nourishes the structures around Including the nerves supplying of eyes

- There by strengthening the ocular muscles
- This might have helped in some asthenopic symptoms (eye strain, headache, watering etc.)
- The pressure execrated by *ghruta* its surface tension & contact time with cornea would have helped in flattening the sleep corneal surface to some extent.
- There by reducing the cylindrical power.

CONCLUSION

After reviewing various researches and available scientific data regarding Tarpana it can be concluded that, *Tarpana* is a superior therapy than merely using eye drops. Tarpana acts on the principle of *Bahya Snehana*. It can successfully cross the defensive Barriers present in eye for absorption and nourish the ocular and periocular Structures & also strengthens the sphincters. On virtue of drug utilised for Tarpana it also provides nutrition directly to the target organ. Netratarpan is the best modality of myopia and other eye disease. Administration of *Tarpana* in the Eye, Drug absorb through various layers of the eye and drugs spread in to the deeper tissues through *Rupavaha Siras*. *Ghruta* is having *Rasayana*, *Balya* & *Chakshushya* properties. By the Activation of *Alochaka Pitta* it induces of *Chakshu vaisheshika* & *Buddhi vaisheshika Alochaka Pitta*. *Chakshu vaisheshika Alochaka Pitta* Increased power of *DrishtiNadi*. *Buddhi vaisheshika Alochaka Pitta* Activate of Visual centre in Brain (Optic nerve).
So improve Visuaul status & *Tarpan* is the best treatment modality for eye disease.
It maintains the health of eye & cures the eye diseases.

Questionnaire before & after Tarpana

(Questionnaire is discussed with expert, we discussed action and we have finalized the Questionnaire with the Stalwarts of shalakyta tantra. It is a subjective perametar differs person to person.)

1) when you wake up in the morning, do you feel (*Sukhaswapana avbodhatva*) Blissful awakening ?

- Yes
 No

Discussion:- *Sukhaswapana avbodhatvam* word has 2 meaning

1. *Sukhaswapana avbodhatvam* means when you wake up you feel like blissful awakening.
2. *Sukhaswapana avbodhatvam* means person sleeps as soon as you go to bed.

2) Do you feel your vision is (*vaishadhya*) Clear ?

- Yes

No

Discussion:- *Vaishadya* word has two meaning.

1. *Vaishadya* means clear vision (person can see better than before)
2. *Vaishadya* means clear eye (person not have mala in eye or near eyelids)

3) Do you feel Perception of colours is (*Varnapatava*) Discernment of individual colours?

Yes
 No

Discussion:- *Varnapatava* word has two meaning:-

1. *Varnapatava* means person can find perfect difference in each colour.
2. *Varnapatava* means person's sclera in it's normal colour.

4) Do you feel activity of the eye lids is (*Kriya laghvama*) easiness in closing and opening?

Yes
 No

Discussion:- *Kriya laghavama* word has two meaning:-

1. *Kriya laghavama* means person can blinking easily or eye movement are normal.
2. *Kriya laghavama* means person's vision process is normal.

5) Do you feel light stress (*Prakash kshamta*) is Tolerated?

Yes
 No

Discussion:- *Prakash kshamta* means person react normally to light or some rays of light.

6) Do you feel (*Laghu lochanam*) lightness in the eyes?

Yes
 No

Discussion:- *laghu lochanm* means person fills lightness or stress free while reading books/watching TV.

7) Do you feel (*Nirvritti*) establishment of pleasure and health in the eye?

Yes
 No

Discussion:- *Nirvritti* means feel like prevention of eye from disease.

8) Do you feel (*Vyadhi vidhwamsa*) destruction of eye diseases?

- Yes
- No

Discussion:- *Vyadhi vidhwams* means after *Tarpana* eye is disease free.

Note:- *Atarpit* and *Atitarpit* lakshna also asses with this questionnaire (There is some diff. Symptoms)

9) Do you feel (*Atisnigdham*) excessive unctuousness or oiliness of eyes?

- Yes
- No

Discussion:- Parson fills dryness in the that means it is a *Atarpit lakshana* , if they fill excessive oiliness it is a *Atitarpit lakshana*.

10) Do you feel (*Ashru*)excessive lacrimation (tearing of eyes)?

- Yes
- No

Discussion:- person feels excessive lacrimation or excess(lack) of tearing.

11) Do you feel (*Kandu*) itching of eyes?

- Yes
- No

Discussion: - *Kandu* means itching of eye

12) Do you feel (*Upadeha*) coating in the eyes?

- Yes
- No

Discussion:- means stickiness in eye

Assessment of questionnaire:-

Yes :- 01

No :- 00

NOTE:

The study highlights the efficacy of " Ayurvedic " which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical science and can be utilized partially if found suitable.

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