

**"KRIYAKALPA'S" A BOON IN EYE HEALTH: A REVIEW****Dr. Poonam Bamola\*<sup>1</sup>, Dr. Avinash Chaudhary<sup>2</sup> and Dr. Himani Gupta<sup>3</sup>**<sup>1</sup>Associate Professor, Department of Shalaky Tantra, FIMS, SGT University.<sup>2</sup>Associate Professor, Department of Panchakarma, FIMS, SGT University.<sup>3</sup>Associate Professor, PTSR, FIMS, SGT University.Article Received on  
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University.**ABSTRACT**

Ayurveda is the world's oldest holistic healing system. It not only treats the diseases, but its main goal is to promote good health. It places great emphasis on prevention of diseases and encourages the maintenance of health. Shalaky Tantra one of the very important branches of Ashtanga Ayurveda that deals with study of urdhwajatrugata diseases i.e., the diseases that occurs above the clavicle. Eyes are the most precious gift of God to us but in this modern and advanced life we rarely pay attention to this organ. Also, due to increasing use of digital screen the health of this precious organ is at risk. Ayurveda, the most ancient form of medical system is primarily aimed at prevention of disease along with promotion of positive health. In Shalaky tantra, local therapeutics are mentioned under the term Kriya Kalpa's which are the main topical procedures for Netraroga and are described in detail in our Samhita's. In this

article different types of Kriyakalpa, their indications and contraindications, probable mode of action and their importance in Netraroga will be discussed.

**KEYWORDS:** Netra roga, Shalaky Tantra, Ayurveda, Kriyakalpa.**INTRODUCTION**

Eye disorders are remarkably common. Globally, at least 1 billion people suffers from vision impairment either near or distant, that either could be prevented or yet has to be addressed. Decreased vision due to ignorance i.e., due to absence of timely detection and management can have long-term personal and economic effects. Severe visual impairment can also lead to inability of educational achievement in young children's whereas affects life quality through

decreased productivity, workforce participation and due to this depression. Cataracts and uncorrected refractive errors are estimated to be the leading causes of vision impairment; however, other causes like age-related macular degeneration, glaucoma, long standing systemic conditions like diabetes causing diabetic retinopathy, infectious diseases of the eye and trauma to the eye cannot be ignored.<sup>[1]</sup>

In India, prevalence of blindness (presenting vision, 6/60 in better eye) was 8.5%. The blindness load could be nearly halved by correction. The prevalence of low vision (presenting vision, 6/18-6/60 in better eye) was 23.85%. Cataract in one or both eyes was responsible for 62.4% of bilateral blindness. One-fifth of all the bilaterally blind individuals had uncorrected or poorly corrected refractive errors.<sup>[2]</sup>

Recently a study from north India reported 32% prevalence of dry eye disease (DED), and based on symptoms 81% were severe DED.<sup>[3]</sup> Every person will experience at least one eye condition during their lifetime. So in this era of escalating eye diseases, kriyakalpas the local ocular therapeutics affirms the absolute necessity of unique approach towards netra rogas. In ayurveda chikitsa is classified into three types (1) antahparimarjana (2) bahyaparimarjana and 3) shastrapranidhana. Kriyakalpas are one of the bahya parimarjana chikitsa<sup>[4]</sup> having multiple advantages and deals specifically the diseases of eyes. These not only cure the diseases but also prevent them. This is proved by the fact that various Acharya's gave detailed description about Kriyakalpa (Ocular therapeutic procedures) which essentially shows its efficiency and practicality in maintaining health as well as curing ocular disorders.

### **Kriyakalpa**

Kriyakalpa is made up of two distinct words. They are "Kriya" meaning therapeutic procedure that are undertaken for preventing/curing any disorder and "Kalpa" means formulations that are used for that particular disease. Basically these are the local ocular therapeutics where medicated Ghrita and powdered formulations are administered either above or around the eyes. Acharaya Shusruta have described five types of Kriyakalpa in Uttar tantra which are as follows:<sup>[5]</sup>

1. Tarpana (Retention of Medicated ghrita in a boundary made up of Black Gram Flour)
2. Putpaaka (instilling medicated juices extracted by heating bolus of herbs along with meat to get concentrated form of juices)
3. Seka (pouring continuous stream of kwath over eyes)
4. Aschyotana (instilling Medicine in form of eye drops)

5. Anjana (using medicines in the form of Collyrium)

Apart from these two extra procedures have been mentioned in Sharangdhar Samhita making the number to 7.<sup>[6]</sup>

6. Pindi (Fastening medicated bolus to the eyes)

7. Vidalaka (paste of medicines over the closed eyes up to eyelashes)

### Kriyakalpa Room

The room where all these procedures are done should be properly ventilated and devoid of excessive blowing wind, dust and sunrays. The curtains should be dark in colour and the room should be having all material required for the therapy and all medications to control the complications.<sup>[7]</sup>

### 1. Tarpana

Literary meaning of Tarpana is nourishment. So, Netra-Tarpana is the kriyakalpa procedure that provides nourishment to the eyes. Here patient is made to lie in supine position and medicated ghrita, manda, vasa or majja is kept in the eyes for a stipulated period of time inside a 2 angula boundary made up of black gram Flour. Nowadays to save time and efforts swimming goggles are also used instead of masha dal boundary. Also Tarpana karma preferably should be done after Kaya shodan.

Acharaya's have mentioned ausadh dharan kaal according to Dosha prakopa and adhisthana of the Disease.

### Indication's of Tarpana karma<sup>[8]</sup>

Feeling of darkness in front of eyes

Stiffness or rigidity in eyes

Dryness in eyes

Trauma to eyes

Vata-pittaja netra roga

Difficulty to open close the eyelids

Abnormal deviation of eyeball

Falling of eyelashes

Dirty eyes

**Contraindications of Tarpana karma**

Cloudy day

Very hot or cold day

Physical or mental exertion

Giddiness

In complicating conditions like inflammation, pain redness persist in eye

**Preferred time**

Netra Tarpana can be done Both morning and evening.

**Ausadh dharan kaal according to Dosha prakopa (matrakala).**

Dosha	Su.Sa.	As. Hr.	Sh.Sa.	Bp.
Healthy eye	500	500	500	500
Kapha Prakopa	600	500	500	500
Pitta Prakopa	800	600	-	600
Vata Prakopa	1000	1000	1000	1000
Su.Sa.- Shusruta Samhita ; As. Hr.- Ashtanga Hridaya, Sh.Sa.-Sharangdhar Samhita Bp.- Bhavprakash				

**Ausadh dharan kaal according to Adhisthan (matrakala)**

Adhisthan	Su.Sa.	As. Hr.	Sh.Sa.	Bp.
Sandhigata	300	300	500	500
Vartmagata	100	100	100	100
Shukalagata	500	500	600	-
Krishnagata	700	700	700	700
Drishtigata	800/1000	800	800	800
Sarvagata	1000	1000	1000	1000
Su.Sa.- Shusruta Samhita ; As. Hr.- Ashtanga Hridaya, Sh.Sa.-Sharangdhar Samhita Bp.- Bhavprakash				

**Signs of proper Tarpana:** Tolerance to light, health, lightness in eyes, sound sleep, normal complexion of parts, easy opening and closing of eyes.

**Signs of improper Tarpana:** Excessive procedure causes heaviness in eyes, dirt collection on eye, oiliness, epiphora, itching sensation, sticky debris in eye and Kapha complication whereas lesser procedure causes roughness, dirtiness, lacrimation, aggravation of the diseases and indistinct vision.

### Probable mode of action of Netra Tarpana

Ghrita is supreme among the jangam Sneha and is balvardhak, ojevardhak and dhatuposhak. Also by virtue of its sanskaranuvartana properties it can attain the properties of ingredients used.

According to acharya Charak Sutrasthana Snehadhyaya "Snehoanilam Hanti" which means that it is best for pacifying vata dosha. Also since ghrita is left in the eye for a stipulated time period so contact time of drug is more and absorption is also more. As ghrita have lipophilic properties, it crosses corneal epithelial barrier easily.

### 2. Putpaaka

In order to restore the strength of eye after tarpana karma, putpaaka is done. Indication, contraindications and procedure of putpaaka karma is similar to tarpana karma but method of preparation is different. As per our classics Putpaaka is classified into three types i.e. Snehana, lekhana and ropana.<sup>[10]</sup> But Acharaya Vagbhatta mentioned prasadana in place of ropana putpaaka.<sup>[11]</sup>

#### Types Of Putpaaka with their Retention Time(matrakala)<sup>[12]</sup>

Type	Used in	Retention time
Snehana	Vataja Netra roga	200
Lekhana	Kaphaja Netra roga	100
Ropana/Prasadana	Vataja, pittaja, rakataja Netra roga, Drishti Daurbalya	300

### Mode of action

Putpaaka procedure method is same as that of Tarpana karma but the only difference is in the method of preparation as in Putpaaka swaras is extracted through putpaka vidhi. Contact time of medicine is same as that in tarpana karma but absorption is more because the swaras obtained is having both fat- and water-soluble content, hence having lipophilic and hydrophilic properties to penetrate through cornea.

### 3. Seka

This Kriyakalpa procedure is indicated in acute phase/ fulminating stage of eye diseases. In this Kwath/medicated solution is poured as continuous stream over the closed eyelids from 4 angula for a specific time as per the dosha involved. Since the medicine is continuously poured over the eyelids, so the medicine gets absorbed through the skin. Seka is done in all those ocular disorders those are strong enough to be treated by Aschyotana.

**Types and retention time for seka<sup>[13]</sup>**

Type	Dosha	Retention time
Snehana	Vataja netraroga	400
Lekhana	Kaphaja netraroga	200
Ropana	Pittaja-raktaja netraroga	600

**Mode of action**

Seka is indicated in acute phase/ fulminating stage of Eye diseases. Since medicated solution is poured as continuous stream over the closed eyelids so medicine is absorbed via skin of eyelids. The active principle in this procedure is aqueous extract.

**4. Aschyotana**

Aschyotana is first line of treatment in eye diseases.<sup>[14]</sup> This therapy administered appropriate to aggravated doshas quickly cures those diseases which are not very strong. In this few drops of medicine is instilled in open eye from two angula height. Aschyotan is done once the amalakashanas of disease is settled down. Aschyotana can be done in forenoon, afternoon, midday or at times of pain.<sup>[15]</sup> There are three types of aschyotan mentioned in the classics and their quantity and indication is as follows:

Snehana- 10 drops and done in atiruksha netra

Lekhana- 7-8 drops and done in atisnigdha netra roga

Ropana- 12 drops and done in pitta-rakta netra roga and in condition of vana

**Mode of action**

Same as that of pariseka.

**5. Anjana**

It is a procedure where medicinal powder or paste is applied on inner side of lower lid from inner canthus to outer canthus or vice versa. Anjana can be done either with fingertip or with the help of Anjana shalaka.

**In Our classics Anjana is classified into following types<sup>[16]</sup>**

1. Lekhanajana- It is Used in kapha predominant conditions of eye
2. Ropananjana- In this drug used is oily in nature and provide strength and complexion to the eyes.
3. Prasadananjana- this type is made up of Madhur and snigdha medicines.

**Mode of action**

Since the drugs used in Anjan karma are in contact with eye for longer duration, bioavailability of medicines is more due to more tissue contact time.

**6. Pindi**

In this procedure medicated paste kept in a thin cloth or doshghna leave is applied over the eye. It is the modified for of vidalaka karma where medicine is directly applied over the eyelids in form of paste. This therapeutic is beneficial in conditions like Netra abhisya, sotha, netrakandu etc.<sup>[17]</sup> In general it is useful in all eye diseases and abhisya in particular.

**Mode of action**

Since in pindi medicine is applied in poultice form over the eyelids so due to that heat, local temperature rises leading to local vasodilation resulting in increased absorption of drug.

**7. Vidalaka**

Unlike pindi, in vidalaka medicated paste is applied directly over the eyelids sparing the eyelashes.

Watering from eyes, inflammation, Redness, pricking sensation, foreign body sensation, burning sensation in eyes are the common indications for vidalaka. In this therapeutics thickness of the paste is similar to that of mukhalepa like Dosaghna Vidalaka is 4 Angula, Vishagna is 2 Angula, Varnya is ½ Angula.

**Mode of action**

As the medicine is directly applied over the eyelids, so due to mechanical pressure of this there is reduction of inflammation and also it improves aqueous drainage by vasodilation hence lowering i.o.p.

**CONCLUSION**

Ayurveda is the science of life. It not only cure ailments but most importantly it promotes and maintain health also. Since eyes are the most important sense organ of our body so prime importance should be given for maintaining their health. Kriyakalpa i.e the local therapeutics that are specially indicated for Ocular disorders are boon to our eyes. They not only maintains health of eyes but also cures eye ailments. Since Kriyakalpas are topical therapies, they get the proper response of drug by attainment of effective concentration of medicine at the site of

action for sufficient time interval hence not only maintains health of eyes but also cure the diseases of eyes.

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