

## LITERARY REVIEWS

## Significance Of *Kriya kalpa* In Ocular Dieases

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### ABSTRACT

**Introduction:** Shalaky Tantra is one of the eight branches of *Ayurveda* dealing with *Urdhwajatrugata Rogas* (diseases of eyes, nose, ears, head & throat). Ophthalmology comprises the major part of Shalaky tantra. The treatment approach of Shalaky Tantra not only involves internal use of medications but it also includes use of various local procedures, surgical & parasurgical procedures. *Kriyakalpas* are the therapeutic procedures practiced in Shalaky Tantra having wide range of implications in management of disorders of ophthalmology. It includes selection of specific procedure, preparation of special drug form and finally its proper application to the particular part. Acharya Sushruta has described 5 major *Kriyakalpas* i.e, Tarpana, Putapaka, Seka, Aschyotana & Anjana<sup>1</sup> whereas in addition to these Acharya Sharandhara has added two more procedures- Pindi & Vidalaka<sup>2</sup>. *Kriyakalpa* is used for both the purposes, i.e, for Swasthya Samrakshana (prevention from disease) & Vikara Prashamanam (curing the disease).  
**Aims and Objectives:** A meticulous search of classic Ayurvedic texts, available contemporary literature pertaining to *Kriyakalpas*, as well as clinical wisdom of stalwarts of Ayurveda was analyzed to draw safe and effective practical applicability as per presentation of the disease, Dosha and healthy individuals as well. **Results and discussion:** Practical approach for *Kriyakalpa Dravyas* and procedure in ocular diseases and healthy individual, doses and duration of Each *Kriyakalpa*, indication & contra-indications of *Kriyakalpas* have been described and leads from these protocols can be utilized for the better management of ocular ailments and complications.



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#### Introduction:

*Shalaky tantra* is one of the eight branches of *Ayurveda* dealing with *Urdhwajatrugata Rogas* (diseases of eyes, nose, ears, head & throat). Ophthalmology comprises the major part of Shalaky tantra. The treatment approach of Shalaky tantra not only involves internal use of

medications but it also includes use of various local procedures, surgical & parasurgical procedures.

*Kriya kalpas* are the therapeutic procedures practiced in Shalaky Tantra having wide range of implications in management of disorders of ophthalmology. It includes selection of specific procedure, preparation of special drug form and finally its proper application to the particular part. Acharya Sushruta has described 5 major Kriyakalpas i.e, Tarpana, Putapaka, Seka, Aschyotana & Anjana<sup>[1]</sup> whereas in addition to these Acharya Sharandhara has added two more procedures- Pindi & Vidalaka<sup>[2]</sup>.

Kriyakalpa is used for both the purposes, i.e, for Swasthya samrakshana (prevention from disease) & Vikara prashamanam (curing the disease).

#### SEKA:

Sr.No.	Drug	Conditions
01.	<i>Triphala Kwath</i>	All ocular diseases
02.	<i>Stri Stanya</i>	Nayanabhighata (Ocular trauma)
03.	<i>Amalki swaras, Sahijana patra swaras</i> along with <i>Madhu &amp; Saindhava</i>	Navin Abhishyanda ( Acute conjunctivitis)
04.	<i>Amla dravyas</i> decoction	Vataja Abhishyanda (Allergic conjunctivitis)
05.	Decoction from Bilvadi panchmoola, Erandamoola, Sahijana	Vataja Abhishyanda (Allergic conjunctivitis)
06.	Decoction of Daruharidra, Chandana, Ela, Draksha, Lodhra, Darbha, Yashtimadhu, etc	Pittaja Abhishyanda (Acute purulent conjunctivitis) Pittaja Adhimantha (Acute congestive glaucoma)
07.	Triphala, Lodhra, Yashtimadhu, Sarkara	Raktaja Abhishyanada (Acute mucopurulent conjunctivitis)
08.	Decoction of Sahijana, Khadira	Pothaki (Trachoma)
09.	Yashtimadhu, Amalaki, & Patola	Kumbhika vartma (Blepharitis)

#### ASCHYOTANA:

Instillation of few drops of medicines in the form of *Kwatha, Kshira, Drava, Sneha*, etc into the open eyes from the height of two Angula is called as Aschyotana<sup>[7]</sup>. It is considered as *Adya upakrama* (first line of treatment) in all ocular diseases<sup>[8]</sup>. There are three types of Aschyotana- *Snehana, Lekhana & Ropana*<sup>[9]</sup>. 10 drops of *Snehana Aschyotana* in *Vataja* disease, 7-8 drops of *Lekhana Aschyotana* in *Kaphaja* diseases & 12 drops

*Seka* is the procedure of medicating the eye with a fine stream of liquid or decoction from the height of 4 angulas<sup>[3]</sup>. It is indicated in acute & aggravated conditions of eye<sup>[3]</sup>. Duration of Seka varies according to pathological condition & therapeutic type of irrigating fluid. On the basis of action it is of three types – *Snehana, Lekhana & Ropana*<sup>[4]</sup>. *Snehana seka* is for 400 Matra kala used in *Vataja* disease, *Lekhana* for 200 Matra kala in *Kaphaja* diseases & *Ropana* for 600 Matra kala in *Pittaja & Raktaja* diseases. *Samyak Seka Lakshana* are *Rog Nivritti* (Relieved from Disease), *Swabhavik Varna* (Getting natural colour), *Vedana Shanti* (Relief from pain), etc<sup>[5]</sup>. *Seka* is used in *Balwan Dosh Vyadhi*<sup>[6]</sup>

Various drugs used for Seka in various ocular conditions-

of *Ropana Aschyotana* in *Pittaja & Raktaja* diseases is indicated. Aschyotana can be used in *Alpabalavyadhi*<sup>[10]</sup>.

Aschyotana is useful in painful conditions, irritation and foreign body sensation of eyes, itching of eyes, redness and features of inflammation, burning and excessive watering etc<sup>[11]</sup>.

Various drugs used for Aschyotana in various ocular conditions:

Sr.No	Drugs	Conditions
01.	Triphala Swaras	Netrabhishyanda (Conjunctivitis)
02.	Kwatha of Root of Eranda, Bhrihati, Bilwa, Gambhari, etc	Vataja Netra Roga
03.	Swaras of Nimbi patra & Lodhra twak	Vataja Abhishyanda (Allergic conjunctivitis)
04.	Amalaki, Gambhari, Haritaki	Pittaja Abhishyanda (Acute purulent conjunctivitis)
05.	Swarasa of Shunthi, Triphala, Vasa, Nimba, Lodhra	Kaphaja Abhishyanda (Mucopurulent conjunctivitis)
06.	Swarasa of Haridra, Triphala, Daruharidra, Mishri, Yashtimadhu mixed with Stri stanya	Abhighatajanya netrashoola (Pain due to ocular trauma)
07.	Ghrita siddha with Nimba, Guduchi	Kukunaka
08.	Karvir patra swarasa	Navin Abhishyanda (Acute conjunctivitis)
09.	Amalaki & Patola kwatha	Upanaha (Dacryocystitis)
10.	Lodhra, Saindhava, Draksha, Yashtimadhu mixed with goat's milk	Linganasha (Immature cataract)

#### ANJANA:

Anjana is the topical application of drug in the form of smooth paste or fine powder into the conjunctival fornix with an applicator called Shalaka<sup>12</sup>. It is indicated particularly when the acute symptoms of the ocular problem (Samavastha) have been subsided, i.e. in Jeernavastha or Niramavastha. According to Acharya

Sushruta Anjana, on the basis of action is divided into 3 types- Lekhana, Ropana & Prasadana<sup>13</sup>. Lekanjan is used in Kaphaja diseases of eyes. Ropananjana gives strength and complexion to the eyes. Prasadananjana is prepared with *Madhura* and *Snigdha* medicines.

Time for using Anjana-

Vataja diseases	Sandhya kala ( evening)
Pittaja diseases	Ratri (night)
Kaphaja disease	Pratah kala (morning)

On the basis of bhaishjya kalpana<sup>[14]</sup>-

Types	Conditions
Gutika	Guru dosha (severe diseases)
Rasakriya	Madhya dosha (moderate)
Churna	Laghu dosha (mild disease)

A Shalaka (applicator) of 8 Angula long, thin at the middle & round edges are considered as best for Anjana karma. Swarna, Rajata, Tamra, stones or finger can be used as Shalaka.

Various Anjana in various conditions:

Sr.No.	Drugs	Conditions
01.	<i>Triphala varti</i>	<i>Netra srava</i>
02.	<i>Manahshiladya anjana</i>	<i>Timira, kandu</i>
03.	<i>Chandraprabha varti</i>	Arma (Pterygium), Pishtaka ( Pinguecula)
04.	<i>Pathyadi varti</i>	All ocular diseases

### PUTAPAKA :

It is similar to Tarpana vidhi except the preparation method, as the plant extract is prepared by ball of medicine rapped by green leaves and the layer of mud getting after combustion is used like Tarpana. It is of three types- Snehana, Lekhana & Ropana.<sup>[15]</sup> Various Putapaka are-

Sr.No	Drugs	Conditions
01.	<i>Krishnadi Putapaka</i>	Lekhana karma
02.	<i>Pakwavataputraka Putpaka</i>	Ajakajaat (anterior staphyloma)
03.	<i>PippalyadiPputapaka</i>	Kaphaja timira

### TARPANA:

Ocular oleation is the therapeutic procedure of retaining medicated Ghrita or liquid in the eye by making a compact circular boundary around orbital fossa using Masha (white lentil) dough or Tarpana goggles<sup>[16]</sup>. It gives nourishment to the eyes and cures Vata-Pitta predominant diseases<sup>[17]</sup>.

*Sneha Dharan kala*- according to Adhishthan and Doshas-

Dosha adhishthan	Aushadh Dharan Kala
<i>Sandhigata Roga</i>	300 matra
<i>Vartmagata Roga</i>	100 matra
<i>Shuklagata Roga</i>	500 matra
<i>Krishanagata Roga</i>	700 matra
<i>Drishtigata Roga</i>	800 or 1000 matra
<i>Sarvagata Roga</i>	1000 matra
<i>Vataj Roga</i>	1000 matra
<i>Pittaj Roga</i>	800 matra
<i>Kaphaj Roga</i>	500 matra

Samyak tarpana lakshana consists of Prakash Kshamata (Tolerance to light), Swasthyam (Health), Netralaghav (Lightness in eyes), normal complexion of the parts of eyes, Laghutva in Nimesh-Unmesh (Easiness in closing and opening of eyes) 18 .some of the diseases that can be treated with Tarpana are Computer vision Syndrome, Dry eye syndrome, Degenerative Disorders e.g. AMD, Refractive Errors, Early Cataract, Optic neuritis etc.

Various Tarpana formulations are- Triphala Ghrita,

*Mahatriphala Ghrita , Patoladi Ghrita, Jeevantyadi Ghrita , Saptamrita Ghrita*

### PINDI:

In Pindi the lukewarm paste of drugs in the form of poultice is applied on the closed eyes for the purpose of sudation & drug application. It can be bandaged over the eyes<sup>19</sup>. It is indicated in Netrabhishyanda, Adhimantha, Shotha, Netrakandu, Kaphaja Netraroga, etc

Various Pindi in various conditions:

Sr. No.	Drugs	Conditions
01.	Eranda patra, Twak, moola	Vataja Abhishyanda (allergic conjunctivitis)
02.	Amalaki, Mahanimba	Pittaja Abhishyanda
03.	Sahijana Patra	Kaphaja Abhishyanda
04.	Nimba Patra with Saidhava	Netra shotha, Netra kandu, Netra shoola

## VIDALAKA -

It is topical application of drugs in form of paste over the skin of lids<sup>[20]</sup>. Vidalaka is used in acute inflammatory conditions of eyelids like burning, discharge, excessive tears, swelling, redness, itching, etc<sup>[21]</sup>. It is of three types according to thickness of paste as Uttama (the best), Madhyama (moderate), and Heen (minimal)<sup>[22]</sup>. Various Vidalaka in various conditions-

Sr.No.	Drugs	Conditions
01.	Saindhava & Lodhra twak churna	Netra shoola
02.	Maricha with Bhringaraj swarasa	Arma (Pterygium)
03.	Gairika, Rakta chandana, Vacha, Shunthi	Netra Abhishyanda (Acute conjunctivitis)

Through all the above explanations and observation it is very obvious to conclude that Kriya kalpa plays a very important role in Netra Roga Chikitsa.

## Discussion

The anatomical and physiological activity of the eye is maintained by the normal functioning of the Doshas. Any equilibrium misbalance from the normal state manifests as disease in the eye, so the treatment is nothing but it is to bring the Doshas back to their normal path. For this we have external and internal medications. Principles of Internal medication remain same for all ailments of the body. External medication i.e. Kriyakalpa literally means treatment; but is in vague for ocular therapeutics since ancient times. It will not be an exaggeration to say that Kriyakalpa is the only field of Ayurvedic ophthalmology which has the potential to contribute to the suffering humanity. All the pharmacological parameters i.e. route of drug administration, solubility and bio-availability, absorbing surface, vascularity of the absorbing surface, physical state of drug, compliance and excretion of the drug are to be followed in Kriyakalpa drug and procedure.

## Conclusion

Medical science and technology are ever changing and

progressive but the basics remain same. In this way Kriyakalpas described by Acharyas are as useful and practicable in present era as in ancient time. So, one should practice these Kriyakalpas in healthy individuals and in diseases as well. Kriyakalpa is the only field of Ayurvedic ophthalmology which has the potential to contribute to the suffering humanity and very much beneficial for day to day practices.

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### सारांशः

**परिचयः** शालाक्य तंत्र आयुर्वेद की आठ शाखाओं में से एक है जो उर्ध्वजत्रुगत रोगों (आंखों, नाक, कान, सिर और गले के रोग) से सम्बन्धित है। नेत्र विज्ञान, शालाक्य तंत्र के प्रमुख भाग को समाहित करता है। शालाक्य तंत्र के उपचार के दृष्टिकोण में न केवल दवाओं का आंतरिक उपयोग शामिल है, बल्कि इसमें विभिन्न स्थानीय प्रक्रियाओं, शल्य चिकित्सा और पैरासर्जिकल प्रक्रियाओं का उपयोग भी शामिल है। क्रियाकल्प, शालाक्य तंत्र में प्रचलित उपचारात्मक प्रक्रियाएं हैं जिनमें नेत्र विज्ञान के विकारों के प्रबंधन में निहितार्थ हैं। इसमें विशिष्ट प्रक्रिया का चयन, विशेष दवा के रूप की तैयारी और अंत में विशेष भाग के लिए इसका उचित अनुप्रयोग शामिल है। आचार्य सुश्रुत ने पाँच प्रमुख क्रियाकल्पों का वर्णन किया है अर्थात् तर्पण, पुटपाक, सेक, आच्योतन और अंजन जबकि इनके अलावा आचार्य ने दो अन्य प्रक्रियाओं— पिंडी और विडालक को जोड़ा है। क्रियाकल्प का उपयोग दोनों उद्देश्यों के लिए किया जाता है, अर्थात् स्वास्थ्य संरक्षण (रोग से बचाव) और विकार प्रशमन (बीमारी का इलाज) के लिए।

**उद्देश्यः** प्राचीन आयुर्वेदिक ग्रंथों के सावधानीपूर्वक अन्वेषण, क्रियाकल्प से संबंधित उपलब्ध समकालीन साहित्य और साथ ही आयुर्वेद के आचार्यों के नैदानिक ज्ञान का विश्लेषण रोग, दोष और स्वस्थ व्यक्तियों की प्रस्तुति के अनुसार सुरक्षित और प्रभावी व्यावहारिक प्रयोज्यता विकसित करने के लिए किया गया है।

**परिणाम और विमर्शः** क्रियाकल्पों के लिए व्यावहारिक दृष्टिकोण और नेत्र रोगों में क्रिया विधि और स्वस्थ व्यक्ति और प्रत्येक क्रिया की अवधि, क्रियाकलापों के योग्य योग्य का वर्णन किया गया है और इन प्रोटोकॉल का उपयोग नेत्र संबंधी बीमारियों और उपद्रवों के बेहतर प्रबंधन के लिए किया जा सकता है।