

LOCAL OCULAR THERAPEUTICS FOR NETRA ROGA W.S.R. TO NETRA  
KRIYAKALPA: AN AYURVEDIC REVIEW

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## ABSTRACT

*Shalakyatantra* is part of Ayurveda which manages illnesses arranged above clavicle region. This branch of Ayurveda focuses primarily on providing therapeutic treatment for conditions affecting the eyes, nose and ears, etc. Ayurveda describes numerous *Netra* related diseases and their treatment since eye (*Netra*) is a vital sense organ of body. *Raga*, *Shotha*, *Udirna vedana*, *Nisthoda*, *Garsha* and *Shoola*, etc. are the typical manifestations of *Netra Roga*. Ayurveda described local ocular therapeutics for the management of *Netra Roga*, these local therapies categorizes as *Netra Kriyakalpa* in Ayurveda. *Netra Kriyakalpa* utilizes various procedures which include *Tarpan*, *Putapaka*, *Aschotana*, *Seka*, *Anjana*, *Bidalaka* and *Pindi*. These Ayurveda treatments offer vital efficiency in the treatment of *Netra Roga*. *Kriyakalpa* are used for the both purposes prevention and treatment of *Netra Roga*, *Kriyakalpa* are used to strengthen the eyes and improving vision. *Kriyakalpa* are topical treatments that can penetrate through the cornea thus offers local relief.

**KEYWORDS:** *Ayurveda*, *Kriyakalpa*, *Netra Roga*, *Ocular*, *Eye*.

## INTRODUCTION

Ayurveda is most established logical frameworks of wellbeing and healthy living, in addition to assisting in disease treatment, Ayurveda also promotes social, psychological and spiritual well-being. In this regard, Ayurveda explores various branches that focus on a particular topic. The *Shalaky tantra* branch of Ayurveda works with diseases of the sense organs, such as those of the eyes, ears and nose, etc. The infection of eyes, ear, nose and throat goes under heading of *Urdwajatrugata*

*vyadhi*. *Shalaky tantra* focuses on these conditions and offers a number of treatments for the *Urdwajatrugata vyadhi*.<sup>[1-4]</sup>

The eyes are one of the most valuable sense organs and an important part of the *Urdhwajatrugata sthana*. In the *Shalaky tantra*, an Ayurvedic philosopher discussed various eye diseases and their treatment. The typical symptom of *Netra Roga* is depicted in **Figure 1**.



Figure 1: Symptoms of eye problems as per ayurveda.

Blurred vision, loss of vision, photophobia, burning sensation and dryness, etc. are the symptoms of eye problem as per modern science.

Ayurveda described *Kriyakalpa* as one of the significant methodology which assists in the prevention and treatment of eye problems. *Kriyakalpa* uses medications, cleaning procedures and other approaches for the health maintenance of eye. *Kriyakalpa* includes *Putapaka*, *Tarpana*, *Anjana*, *Seka*, *Ashchyotana*, *Pindi* and *Bidalaka*. for the management of various eye diseases. *Acharya Sushruta* has provided instructions in a separate chapter for *Kriyakalpa*; *Bidalaka*, *Ashchyotana* and *Seka*. are the systems recommended in the *Aama vastha* of the sickness of eyes, on the other hand *Putapaka*, *Anjana* and *Tarpana* are used in *Niramavastha* of the illness of eye.<sup>[4-7]</sup>

Topical treatments can effectively treat diseases of the cornea's outermost parts and the conjunctiva, *Kriyakalpa* can effectively treat inflammations of these structures that spread to the inner segments. *Seka*, *Tarpana* and *Ashchyotana* are route of topical administration to alleviate disorders of the posterior segment and also degenerative changes in the eye. In *Shalaky Tantra*, *Acharyas* describe the *Visista chikitsa* for managing *Netra vikara*. *Kriyakalpa* can also be used as *Swastha samrakshana* to keep normal functioning of *Netra* and sense organs.

#### **Kriyakalpa:**

In *Netra roga chikitsa*, *Tarpanaadi kriyas* has been told by *Acharyas* which is a part of *Kriyakalpa*, the word *Kriyakalpa* itself encompasses two words *Kriya* and *Kalpana*. The word *Kriya* here stands for therapeutic action and *Kalpana* mean *Yoga*. *Kriyakalpa* procedures are a type of *Bahirparimarjana chikitsa* that have a *Sthanika* effect on the *Doshas* that have built up in the eye's anterior and posterior regions.

*Sushruta* referenced five kinds of *Kriyakalpa* including *Tarpana*, *Putapaka*, *Ashchyotana*, *Parisheka* and *Anjana*, while *Sharangadhara* portrayed seven sorts of *Kalpa* for example *Tarpana*, *Putapaka*, *Ashchyotana*, *Parisheka*, *Anjana*, *Pindi* and *Bidalaka*. *Kriyakalpa* acts locally, assists with diminishing degree of irritated *Doshas*, further develops improvement in functioning of eyes, and suppress pathological effects of etiological factors.<sup>[7-9]</sup>

*Tarpana* involves holding of *Ghrta* over the eyeball with squinting activity of eyes for specific timeframe relying on *Dosha* involvement. This system supports eyes, assists with treating *Vata* and *Pittaja netra roga*. This approach can offer medical advantages in moderate refractive blunders, tired eyes and illnesses of retina, and so forth. The upside of this treatment is that particles of *Ghee* not leave eye before time and keep in touch with impacted region subsequently tranquilizes are

assimilated successfully and cross corneal epithelium obstruction.

*Putpaka* is similar to *Tarpana*, but instead of *Ghrta*, *Putpaka vidhi* is used to extract the juice of a medicinal substance. This procedure is recommended for eye rejuvenation due to its lipophilic and hydrophilic nature, this method is superior to *Tarpana* in terms of absorption.

*Ashchyotana* means instilling drops of *Ksheera*, *Sneha* and *Kwath*, etc. it utilizes for disease and unfavorably susceptible state of eye. The contact time is extremely less, get weakened with tears.

*Seka* involves pouring of medicine in the form of *Dhara* onto the closed eye, eye conditions with acute inflammation can be treated effectively by this procedure. This technique works with assimilation of medication through skin of covers.

*Anjana* involves application of powdered medications over the internal edge of lower top utilizing sensitive instrument or fingertip. It is used to alleviate specific *Doshas* irritation. The bioavailability of medication expands because of the more tissue contact of medication.

*Pindi* is restorative swathe, in this technique glue of medication tied by a material and gauzed over the eye. This treatment is viewed as really great for *Abhisyanda* and *Adhimanta*. In this technique the lid's skin absorbs medication, and the poultice's heat causes local vasodilatation.

*Bidalaka* procedure involves pasting of eye lids with medicated paste to relieves symptoms of eye problems including burning sensation and itching, etc. Vasodilatation enhances the medication's absorption through the skin thus this approach offers unique therapeutic responses in many eye problems.<sup>[9-11]</sup>

#### **Mechanism of kriyakalpa procedures in netra roga:**

The *Karma*, *Prabhava* and *Virya* of medications acquire their activities when medications interact with the *Netra vartma* and *Netra Siras*. These procedures make it easier for medicines to be absorbed into the ocular tissue because the *Veerya* of the drugs improves their penetration. The higher entrance of medication, great contact time with visual tissue and quick beginning further develops bioavailability of medicaments utilized in *Kriyakalpa* methodology. These procedures avoid making direct contact with the eye and reduce the risk of irritation to the ocular tissues.

According to Ayurveda, *Drava sweda* is the best remedy for the *Pitta samsrusta vyadhi*, drugs are applied topically to the eye and absorbed through the cornea and conjunctiva thus provides prolong relief in the symptoms of *Netra Roga*. Corneal epithelium permits entry of water

repellent substances by dissemination; water dissolvable items cross the cornea by para-cellular pathway while lipid solvent items navigate the corneal epithelium. *Pindi* work with drug assimilation through transdermal restorative framework, this method further develops bioavailability of medication, and in addition vaso-

dilation brought about by the intensity of pressing works with transcutaneous retention, this vaso-dilation improves permeability and enhances internal immunity.<sup>[4-6, 11]</sup> **Table 1** depicted various topical therapies and their indications along with responses against symptoms of diseases.

**Table 1: Topical ocular therapies and their indications.**

S. No.	Ocular Therapy	Indications	Therapeutic Responses
1	<i>Seka</i>	<i>Purvarupa</i> state of <i>Netra Roga</i>	Helps to relieve irritation, pain, burning sensation, pricking and tearing pains, etc.
2	<i>Aschyotana</i>	Photophobia, <i>Netra Raga</i> , <i>Netra Shola</i> and <i>Ashrusraava</i> , etc.	Relieves <i>Ruk</i> , <i>Toda</i> , <i>Kandu</i> and <i>Daha</i> , etc.
3	<i>Pindi</i>	<i>Netra Abhishyanda</i> , <i>Netragata Vrana</i> and <i>Adhimantha</i> , etc.	Helps to relieve symptoms of <i>Netra Shotha</i> , <i>Netra Kandu</i> and <i>Netra Shoal</i> , etc.
4	<i>Bidalaka</i>	<i>Netra Upadeha</i> and <i>Gharsa</i> , etc.	Relieves symptoms of <i>Daha</i> , <i>Asru</i> and <i>Raga</i> , etc.
5	<i>Tarpana</i>	Fatigued and inactive eyes, darkness in front of eyes, cataract and retinal vascular disorder, etc.	Relieves heaviness, turbidity, itching and sliminess, etc.
6	<i>Putapaka</i>	<i>Dushika</i> – <i>Netra Mala</i> , <i>Raktaraji</i> (congestion) and <i>Gharshana</i> , etc.	Induces sound sleep, lightness in eye and improves vision, also reduces symptoms of diseases.
7	<i>Anjana</i>	<i>Pittaja</i> , <i>Kaphaja</i> and <i>Raktaja Netra Roga</i> , etc.	Relieves irritation, pain and helps to clean eyes, etc.

#### Natural herbs or drugs used for eye:

- ✓ *Gingko Biloba* reduces risks of glaucoma.
- ✓ Fennel is helpful for watery and inflamed eyes.
- ✓ Saffron used to treat cataracts and also delay degeneration of eye.
- ✓ Bilberries helped in night vision.
- ✓ Turmeric helps to reduce oxidation of the eye lens.
- ✓ Grape-seed improves overall health of eye.
- ✓ Goldenseal used as an eyewash and cure mild irritation.

#### CONCLUSION

*Shalakyā tantra* addresses the *Urdhwajatrugata vyadhi* and acts as an important Ayurvedic practice. This branch depicted infections associated with eye and their Ayurveda management. *Ayurvedic samhitas* offers various treatments for *Netraroga* which are described under the heading of *Kriyakalpa*. These are the treatments that are used to keep eyesight normal and help to treat eye diseases. Selection of drugs, preparation of a particular formulation, and method of medication administration, etc. are the factors which significantly affect the efficacy and safety of therapeutic procedures used for *Netraroga*. *Seka*, *Aschyotana*, *Putapaka*, *Pindi*, *Bidalaka* and *Anjana* are all part of *Netra Kriyakalpa*. These therapeutic procedures alleviate various *Netra Roga* symptoms, such as *Vedana*, *Udirna*, *Garsha*, *Raga*, *Nisthoda*, *Shotha*, *Shoola* and *Ashru yuktham*, etc.

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