



## ***Kriyakalpa- Horizon In Netra Roga Chikitsa***

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### **ABSTRACT-**

Eyes are the most important organs in Urdhawajatrugata Sthana. We must protect and take loving care of these delicate organs. Urdhawajatrugata vyadis includes the diseases of eye, ear, nose and throat. Among all of them only eye is only organ whose anatomy, diseases and their treatment are detailed described in Uttar Tantra of Sushruta Samhita. Kriyakalpa is main therapeutic process for netra roga which is described in chapter 18 in Uttar Tantra of Sushruta Samhita. Tremendous advancement made in ophthalmic medicine in recent years has begun a new era in the history of ophthalmology. Different types of Kriyakalpa, their indications and probable mode of action will be discussed in present review article.

**Key Words** – Urdhawajatrugata , Kriyakalpa , netra roga.

### **INTRODUCTION –**

Ayurveda is an ancient medical science gifted from old ancient sages. It is not only a system of medicine in the sense of curing disease. It is also a way of life that teaches us how to maintain and protect health. The Eye is the main sense organ gifted by God to human beings. Ayurveda has stated the importance of an eye with quote “Sarvendriyanam nayaynam pradhanam”<sup>1</sup> i.e. eye is the prime sense organ among the all sense organs. Without vision the whole world is a dark place. Shalakyatantra is one of the branch of Ashtang Ayurveda which deals with the diseases above the Jatru i.e. clavicle. Its founder is said to be Acharya Nimi, whereas the whole Shalakyatantra is explained by Acharya Sushruta in Uttartantra in 26 chapters. Out of these 19 chapters contains the details about the Netra i.e. the eye with its Anatomy, Physiology, various diseases. Kriyakalpa is the main therapeutic process for Ophthalmology in Shalaky tantra. As Panchkarma is the bases of Kayachikitsa , Kriyakalpa is the main therapeutic process for Ophthalmology in Shalaky tantra .The word Kriyakalpa built from two words: Kriya and Kalpa. Kriya means therapeutic procedures used to cure the disease and Kalpa means practicable, possible, manner of acting, a prescribed rule. So Kriyakalpa means specific formulation used for therapy in Ayurvedic Ophthalmology. Acharya Charaka mentioned three kriya kalpa in chikitsha sthana i.e Bidalaka, Aaschyotana and Anjana. Acharya Sushruta mentioned five kriya kalpa i.e Seka, Aaschyotana, Anjana, Tarpana and Putpaka. Acharya Sharangadhara mentioned 7 kriya kalpa five of them are same as Sushruta and added Pindi and Bidalaka to them.

### **TARPANA-**

Tarpana is indicated especially in Vata-Pita<sup>2</sup> dominating personalities suffering from eye disease. It gives nourishment to the eyes and cures the vata – pitta vikara. It is indicated mainly in Tamiyati, Rukshata, Sushka-netra, Ati-daruna, Pakshmpat and Ati-Rogunta<sup>3</sup>. Concentric boundary is formed around the orbit and medicated ghee and oils are filled for a stipulated period.

**Drug used:** Ghee /medicated ghee , Dugda .

**Tarpana duration:**

**a) According to Dosha<sup>4</sup>-**

- i. Vata- 1000 Matra
- ii. Pitta- 800 Matra
- iii. Kapha- 600 Matra
- iv)Swastha – 500 Matra

**b) According to Adhithana<sup>5</sup>-**

- i. Vartma- 100 Matra
- ii. Sandhi300 Matra
- iii. Shukla- 500 Matra
- iv. Krishna- 700 Matra
- v. Drishti- 800 Matra
- vi. Sarvagata- 1000 Matra.

**PUTAPAKA-** Plant extract prepared by ball of medicine rapped by leaves of some plants and layer of mud getting after combustion is used like Tarpan. It is indicated when eye get fatigued after the Tarpana<sup>6</sup>, i.e. for rejuvenation of eyes. Retaining of (Topical application) of plant extracts, fats, for a stipulated period. In • Patola patra • Eranda patra • Sheghru patra • Rasanjana.

**Types of Putpaka<sup>7</sup> –**

- i)Snehan Putpaka
- ii)Lekhaniya putpaka
- iii)Ropniye Putpaka (prasadan Putpaka –vaghbat)<sup>8</sup>

**SEKA-** It is indicated in acute condition of eye diseases .In this procedure decoction or extracts of various medicines is allowed to fall on eyes<sup>7</sup>. Pouring of thin streams of medicated solution in to eye continuously for stipulated period. Indications: it is indicated in acute and severe affections of the eye. Dharana kala of seka is double of that Putpaka<sup>9</sup> .

**Drugs used:** Decoction prepared from different parts of the plants.

**Types of Seka –**

- i)Lekhana
- ii)Snehan
- iii)Ropana

**ASCHYOTANA-** Acharya Vagbhata has stated Aschyotana as the first (prime) procedure for all eye diseases<sup>10</sup>. In this procedure decoction or juice of medicines is instilled in the eye. It's indicated in the initial stage of eye. Instillation of the medicated solution into the conjunctival sac when the eye is completely open and patient is in supine position.

**Matra<sup>11</sup>-** i)Lekhana-7-8 bindu  
ii)Snehana-10 bindu  
iii)Ropana-12 bindu

**Drug used:** Decoctions prepared with leaves, bark etc. The decoction should be neither concentrated nor diluted and it should not be too hot or too cold.

**ANJANA-** In Anjana Liniment of various drugs is applied over the lower lid. Anjana is done in healthy eyes to maintain the healthy vision (for healthy vision a person should use Rasanjana once in 5 days or 8 days) and in diseased eyes to cure the diseases. Generally it is indicated in Kapha predominant eye diseases. It's especially useful in some eye conditions like vedana (pain), daha (burning), shotha (oedema), Raga (redness). It is indicated not only in diseased eye but also in the normal eyes to maintain the visual power properly. It is effective in Lakshanas like Vedana, Ragata, Daha, and Shotha. It has direct action on the ocular tissues especially on conjunctiva, so it is useful in conjunctival disorders. It flushes out debris and unwanted tissue due to its Lekhana property.

Topical application of the drug in the form of paste into the conjunctival fornices with an applicator (*Salaka*). *Anjana* means which spreads or propagates '*Anakti anena anjanam*'.

**Indications:** Anjana is indicated when clinical features of doshas have become manifested and localised in the eye and acute inflammatory signs such as congestion, redness, epiphora are subsided by the application of Seka and Aschotana.

**Contra-indications :** In acute inflammatory conditions.

**Drug used:** Compound drugs prepared of metals, minerals and herbs. Generally antimony, lead and tin compounds are frequently prescribed. It is indicated in advanced stage of all diseases.

#### **Kala of Anjana<sup>12</sup>**

- i) Kaphaja roga- Early morning lekhana Anjana
- ii) Vata roga – Evening Ropana Anjana
- iii) Pitta Roga – Night Prasadana Anjana

**PINDI-** It is also called Kawalika<sup>13</sup>. It is Indicated in Abhisyandha, oedema, itching and ocular pain. In this procedure poultice of medicines is put on eyes. In Pindi-mild sudation is applied over the eye by luke warm paste made out of different plant parts.

**Drugs used:** *Sheeghru patra Eranda patra Dadima twak Nimba twak*

**BIDALAKA-** Medicated paste is applied over the eyelids<sup>14</sup>. It is also indicated in the early stage of disease. In Bidalaka – paste of different drugs is applied over the closed eyelids leaving the eye lashes.

**Indications:** it is indicated in mild inflammatory conditions

#### **MODE OF ACTION OF KRIYA KALPA BASED ON OCULAR PHARMACOLOGY TARPANA-**

In this process the medicated oil or Dugdha or Grita is kept in eye for a specific time by special arrangement. Simple Ghee or oil is used as medicine which is the form of suspension. So its particles do not leave the eye and contact time is more and more drugs are absorbed. It will cross corneal epithelium barrier easily due to its lipophilic property.

#### **PUTPAKA-**

Procedure is same as Tarpana but medicine preparation is Swarasa extracted by Putpaka vidhi<sup>15</sup>. Contact time is same as tarpana but absorption is more than Tarpana because it is a suspension of fat and water soluble contents so having both lipophilic and hydrophilic property to penetrate cornea.

**SEKA-**

In this process “medicine is poured on closed eye (on eye lids) continuously from four inches height for a specific time according to *dosha*” so the medicine is absorbed through skin of lids.

**ASCHYOTANA-** The medicated drops are put into eye from the height of two inches on open eye. Decoctions of raw drugs are used as medicine so its tissue contact time is very less and it get diluted with tears and drains in to Nasolacrimal duct.

**ANJANA-** In this application of medicine to the internal surface of lid margin from *kaneenika sandi* to *Apanga Sandhi* with the *Anjana Shalaka*<sup>16</sup>. So its bioavailability is more due to more tissue contact time.

**PINDI** -Medicated paste is kept in a fresh thin cloth applied on eye is named as *Pindi*. Medicine is absorbed through skin of lid and due to heat of poultice local temperature is increased resulting in local vasodilatation.

**BIDALAKA-** In this process medicated paste is applied to eye lids (externally except at eye lashes).medicine is also absorbed through skin as in *Pindi* and *Seka*. Mechanical effect of pressure helps in reducing IOP by vasodilatation and aqueous drainage.

**CONCLUSION -.**

The main aim of any pharmaco therapeutics is the attainment of an effective concentration at the site of action for a sufficient period of time to elicit the response. In practice, therapeutic effect is found in all types of *Kriyakalpa*. It is up to the science to correlate the observations with their scientific explanation. Various drugs can be selected according to the stage and types of the disease and can be used in various *Kriyakalpa* procedures according to need. The review article is a sincere effort to compile ocular pharmacology explained by ancient *Acharya* in form of *Kriyakalpa* .With the help of new technology ayurvedic scholars can study *kriyakalpa* and certainly *Ayurvedic* ophthalmology will get a global platform .

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