

AN APPRAISAL ON KRIYAKALPA IN NETRAROGA (OCULAR THERAPEUTICS)**Dr. Yuwaraj Kale*¹ and Sarika Choure²**

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ABSTRACT

Kriyakalpas are the boon to Ayurvedic ophthalmology and forms the basis of ocular therapeutics in Ayurveda. Various ocular procedures done in Kriyakalpa have its own mode of action which helps in treating eye disease. The aim of Kriyakalpa procedures are seems to be tissue oriented where the therapeutic concentration of the drug can be achieved by concentration of drug, tissue contact time, molecular weight of drug, absorption of drug, bio-availability of drug. In Kriyakalpa, various drugs can be selected as per vitiated dosha and types of diseases for the procedures. The procedures of medications are modulated to ensure maximum absorption of drug. There is proper duration for kriyakalpa according to sthansamshraya of disease in

different patalas, mandal, and sandhis. These kriyakalpa have purvakarma, pradhankarma and paschatkarma. All the Samyakyog, Ayog Mithyayog, and Atiyog of each kriyakalpa are mentioned in the texts. This article is aimed at throwing a light on scientific basis of Kriyakalpa in Netraroga.

KEYWORDS: Ayurveda, kriyakalpa, Netraroga.

INTRODUCTION

Ashtang Ayurveda denotes eight different branches of Ayurveda in which Shalakyatantra is one of the most important branch dealing with Urdhvajatrugat vikara. Netra is one of the most important dynanendriya. Hence it is very essential to maintain the swasthya of chakshu indriya. For this different therapeutics (kriyakalpa) are mentioned in classics. These

kriyakalpa maintain the netraswsthya and cure the netrarog. The word kriya means therapeutic action and kalpana means specific formulation of medicines. Kriyakalpa are enlisted under bahiparmarjan chikitsa. They have advantages over oral medications as follows

1. The drug given orally will follow pachan kriya with the help of pachak pitta whereas drugs administered through kriyakalpa do not follow such pachan.
2. Oral drugs have difficulties to cross blood aqueous, blood vitreous, blood retinal barriers to reach target tissue of eye ball. Topical drugs cross such barriers.
3. The medication can be selected according to vyadhi avastha.
4. The tissue contact time of the formulation can be properly controlled with the help of kriyakalpa along with the location (sthana), severity, stage of the disease. Thus high concentration of the drug can be achieved by applying medicine to eye for desired period.

Kriyakalpa – In Ayurveda texts variety of kriyakalpas are expalines that are enlisted below in table no.1-^{[1], [2], [3], [4], [5], [6], [7]}

Table no. 1: Kriyakalp in Netraroga References and Number.

Sr no.	Samhita	Adhyaya	No. of Kriyakalpa	Name of Kriyakalpa
1.	Charak Samhita	Trimarmeeya Chikitsa	3	Vidalaka, Ashchyotana, Anjana
2.	Sushrut Samhita	Kriyakalpa adhyaya	5	Seka, Ashchyotana, Tarpan, Putpaka, Anjana
3.	Ashtang Hriday	Aschyottan anjanavidhi, Tarpanputpaka vidhi	5	Seka, Aschyottana, Tarpan, Putpaka, Anjana
4.	Ashtang Samgrah	Aschyottan anjanavidhi, Tarpanputpaka vidhi	5	Seka, Aschyottana, Tarpan, Putpaka, Anjana
5.	Sharangadhar	Netraprasadanvidhi	7	Seka, Aschyottana, Pindi, Vidalaka, Tarpan, Putpaka, Anjana
6.	Chakradutta	Netrarog Chikitsa	7	Seka, Aschyottana, Pindi, Vidalaka, Tarpan, Putpaka, Anjana
7.	Yog Ratnakar	Netrarog adhikar	7	Seka, Aschyottana, Pindi, Vidalaka, Tarpan, Putpaka, Anjana

Kriyakalpa kal

Tarpan and Putapaka are done in purvanha and aparanha. Aschyotana and Parisheka are done according to doshik predominance. In vatic conditions in purvanha, in paittik conditions in madhyanha and in kapha predominance in aparanha. Anjanam is done in purvanha or aparanha.

Duration- Each Kriyakalpa is done for a specified time. This time is measured in terms of Matrakala. It is the time taken to, Touch the knee joint with tip of the finger, Open and close the eye (blinking) Snapping the finger, Utter a long vowel etc.(One hundred Matrakala is nearly 32 seconds).^[8]

Tarpana- Tarpana is the local procedure of application of Sneha Dravyas like Ghrita preparations through a specially prepared border over the eye. It is also called as Netrabasti, gives Trupti (satisfaction) to the eye. And indicated in visual disturbances, dry eye conditions, allergic conditions, difficulty in the movement of eye ball and eye lids, diseases of Shukla, Krisnamandala and diseases due to injuries. It is contraindicated in very hot, very cold, cloudy weather, general weakness, associated with Aamalaksanas (acute manifestation of eye diseases). Retention time of Tarpana has also been mentioned in classics on the basis of Dosha and Adhistana like 1000 Matrakala in Vataja Netra Roga, 600 or 800 in Pittaja, 500 or 600 in Kaphaja. 100 or 300 in Vartmagataroga, 300 in Sandhigata, 500 or 600 in Shuklagata, 600 or 700 in Krisnagata, 700 in Dristigata and 1000 Matrakala in Sarvagata Netra Roga.^[9]

Putapaka-The procedure of Putapaka is similar to Tarpana, but the ingredients, preparation of medicine and durations are different. It can be done after Tarpana or independently. Indications and contraindications of Tarpana are also applicable to Putapaka. There are 3 types of Putapaka mentioned in classics like Snehana, Lekhana and Ropana,^[10] but Vagbhata has mentioned Prasadana^[11] in the place of Ropana. Retention time of Putapaka is 100 Matrakala in Lekhana, 200 in Snehana, 300 in Ropana Putapaka.

Parisheka-Parisheka is the procedure of pouring the liquid medicines slowly to open eye from a height of four Angula and indicated in acute conditions. There are 3 types of Seka mentioned in our classics like Snehanaparisheka which is indicated in Vatajanetraroga and 400 Matrakala duration, Lekhanaparisheka indicated in Kaphajanetraroga and 200 Matrakala, Ropapanarisheka indicated in Pitta and Raktajanetraroga and 600 Matrakala duration.^[12]

Aschyotana-Instillation of few drops of medicines to the open eye from a height of two Angula (inches) is called as Aschyotana. It is the first line of treatment in eye diseases and it should be done on the fourth day of disease manifestation or after Amalaksanas are settled down. When Doshas are not severely vitiated and the disease is in the early stage, it is beneficial. There are 3 types of Aschyotana and quantity mentioned in classics like Snehana Aschyotana 10 drops, Lekhana 8 drops, Ropana 12 drops.^[13]

Anjana-Anjana is a procedure of applying medicinal pastes or powders to the inner side of lower lid from inner canthus to outer canthus or vica versa, either by fingertip or with an applicator (Anjana Shalaka). It is indicated when Doshas are fully manifested and are located in the eye.^[14] There are 3 types of Anjana mentioned in classics like Lekhana, Ropana and Prasadana but Astanga Sangraha added Snehana as fourth type.^[15] Anjana mainly have Lekhana properties.

Pindi- Pindi is the procedure of medicated paste is kept in a fresh thin cloth applied on eye. It is the modification of Vidalaka. It is also called as Avaguntana.^[16] It is usefull in the early stages of all eye diseases in general and Abhisyanda in particular.

Vidalaka- Vidalaka is the application of medicated paste to the outer surface of the eye lids except at eye lashes. It is indicated in Daha, Kandu, Shopha etc.^[17]

Kriyakalpa Kaksha: Kriyakalpa room should have proper ventilation but devoid of excessive blowing wind, sunrays and dust. There should be javanika (curtains) of dark colours like blue or yellow. It should be equipped with materials and medications for the treatment of ayoga, mithyayoga, atiyoga.

Procedure: These procedures are consisting of purvakarma, pradhankarma and paschatkarma.

Purvakarma: collection of all medications required for procedure. Preparation of the kriyakalp room regarding airway and temperature.

2. Pradhankarma: It includes actual procedure.

3. Paschatkarma: It includes pariharakal and sansarjana karma.

Mode of action of kriyakalpa: The medicines are absorbed through akshikosha, eyelids, orbit, sandhi, sira, shringataka marma, ghrana, asya, strotas and reach upto upper region

which expels vitiated doshas. Cornea determines the intra-ocular penetration of the drugs used in kriyakalpa. The corneal layer stroma allows rapid passage of the drug through endothelium into anterior chamber. Following factors determines the better penetrations of the drugs through the cornea. 1. Solubility of drugs in both water and fats. 2. Pro drug forms. 3. Wetting agent. The intra-ocular penetration of systemically administered drugs is possible only if they are able to pass through blood aqueous barrier. Low molecular weight and lipid solubility of drug helps in the more effective action of drug. There are other different modes of treatment and administrations of medicine in netrarog viz. gharshan, pratisaran, samsvedan, avachurnan, pooran, upanaha, avagunthana, sandhavan, lepan, pratyanjana, abhyanjana, prasadana etc.

CONCLUSION

Kriyakalpa has a very scientific base of sukshmatva which helps the medicine act on a very minute strotogat level that provide bio-avaibility of drugs to the target tissue of eye. One can select specific drug and specific formulation and specific kriyakalpa for particular disease. It also depends on vyadhi avastha, vyadhi sthan (according to netrapatalas) and age of the patients. In recent era, people are addicted to the screen and many lifestyle related diseases are occurring especially ophthalmic problems like dry eyes, watering of eyes etc. In such problems, Ayurveda kriyakalp can really act miraculously and it should be promoted for all the age groups.

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