

THE CONCEPTUAL STUDY OF AKSHITARPAN IN MYOPIA

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ABSTRACT

Myopia is a common refractive error & major public health problem pertaining to eye that entails substantial social, personal, educational & economic impact. Prevalence of myopia ranges from 6.9 to 19.7% all over the world. It is irreversible in progression & corrections of myopia are not without complications. The symptoms of myopia closely resembles with the disease *Timir*. It involves *pratham & dwitiyapatala* of *Netra*. Also both have similarity in the anatomical structures involved & the pathogenesis of disease. *Kriyakalpas* are the procedures used to treat the *Netraroga*. *Tarpan* is one among 7 *kriyakalpa* which gives nourishment to the eyeball and cures the *vata pitta vikara* of *netra*. Thus it has preventive as well as curative effects. In the process of *tarpan*, the oily substance is kept in the eye for a specific time by special type of arrangements.

Key words: *kriyakalpa, tarpan, myopia, ghrita, shodhan.*

INTRODUCTION

The most important to see this beautiful world is eyesight i.e. vision. But for an individual, who is blind day and night are same. The errors of refraction are by far commonest cause of defective vision. Myopia is a type of refractive error in which parallel rays of light coming from infinity are focused in front of the retina when accommodation is at rest. It is also called short sightedness. According to WHO, NPCB survey (1986-89) percentage of blindness by refractive error is 7.35⁽¹⁾

Theetiological factors of myopia includes endocrine disturbances, nutritional deficiencies, general debility, stress, excessive near work, genetic factors, heredity etc.⁽²⁾ In *Ayurveda* clinical features related with visual disturbances are noted under *Drushtigat Roga*. According to progression of visual disturbance, the diseases can be noted under *Timir-kach -Lingnash*. Out of which *Timir* can be correlated with refractive error. *Kriyakalpas* or local ocular

therapeutic procedure are a group of special methods of drug administration locally into the eye for the treatment of eye diseases in which *Akshitarpan* is foremost procedure for *Timir*⁽³⁾.

Indications of Tarpan: *Akshitarpan* is indicated in following diseases: *Tamyata, Stabdghata, Shushkta, Rukshata, Abhighata, Vata-pitta vikara, Jihyata, Kathinvartma, Kruchronmelan, Seerotpata, Siraharsh, Arjuna, Abhishyanda, Adhimantha, Anyatovata, Vataparyaya, Shukrarog, Shunapakshma, Adhimantha*⁽⁴⁾

Contra indications of Tarpan: *Durdin, atiushna- atisheetaritu, chinta, aayasa, bhay, shok, shotha, raga, vedana, updravayuktas*⁽⁵⁾.

Tarpan vidhi⁽⁶⁾: Poorvakarma (Preparation of patient): First of all *shodhana karma* should be done with *vaman, virechan, basti, raktamokshan & nasya*.

Pradhana karma (Main Procedure): After *Shodhana karma, Tarpan* should be

planned as per the convenience or requirement. This procedure may be performed either in morning or evening hours. It is advisable in empty stomach or after digestion of the foods consumed. It is better to avoid *Tarpan* if the atmospheric weather is either too hot or too cold or cloudy. In normal season *Tarpan* should be done either in morning or evening. The place should be without dust & smoke. Lying down position should be given to the patient. Blackgram paste is used to make a frame around the eyes rim of which is placed around one of the eyes touching the eyebrow above, nose medially, maxillary prominence below and border of orbit laterally. While making the frame, one should be particular that there is no any rent in this frame least *ghee* will leak out of this & cause inconvenience during procedure of *Akshitarpan*. Thus approximately 2 inch

high boundary is prepared around the eyes. Similar frame is also made around the other eye. Swimming goggles can also be used for the purpose of *Akshitarpana*. Medicated *ghee* e.g. *Triphala Ghrita* which is to be applied is made lukewarm by heating it in the water bath. Patient is asked to close his eyes. Then medicated *ghee* is poured upon the eyes with dropper or spoon on to both eyes at its medial end one after another. *Ghee* is poured up to the level of eye lashes. The eye is made to open & close alternatively several times & then *ghee* is removed to complete the procedure. **Paschat karma (After Procedure):** After *tarpan* medicine should be removed by doing a perforation in *mashapali* at temporal side. Disposable 10cc syringe can also be used to remove *ghee*. *Swedan* is given with *satupottali* & *netraprakshalan* with luke warm water.

AushadhaDharankala⁽⁷⁾:

Vyadhi (According tosthana)

- 1) *Vartmagata*
- 2) *Sandhigata*
- 3) *Shuklagata*
- 4) *Krishnagata*
- 5) *Drushtigata*
- 6) *Sarvagata* 1000matra

Dharankala(matra)

- 100 matra
300 matra
500 matra
700 matra
800/1000 matra

According to dosha:

<i>Vatajvikara</i>	1000 matra
<i>Pittajvikara</i>	800 matra
<i>Kaphajvikara</i>	600/500 matra
<i>Swastha</i> (normal person)	500 matra

Number of days for procedure:

- Vataj* 1 day
Pittaj 3 days
Kaphaj 5 days

As per AcharyaJejjata:

- Alpadosha* 1 day
*Madhyamadosh*a 3 days
Atidosha 5 days

SamyakTarpanlakshanas: *Prakashsahtwa, laghuta, vishadata, prakritvarna, vyadhi-nash, kriyaprakrutwa.*

DISCUSSION

There are different *snehadravyas* used for the *tarpan* procedure e.g. *ghrita, tail, vasa & majja*. Out of these, *ghrita* is best for *tarpana* due its *chakshushya, arogyakaraka, rasayana, yogvahi & sanskaranuvariti* properties⁽⁷⁾. The probable mode of action of *Akshitarpan* considering the *doshakarma* appears to be predominantly *vatashamaka* followed by *pittashamaka & kaphashamaka*. Thus the

overall effect of the compound drug is *vatapradhan tridoshashamakas* & hence it disintegrates the pathology of *timir*, which is also *vatapradhan tridoshaj* in its manifestation. The *ghrita* has the quality of transpassing into minute channels of the body. Hence when applied in the eye; it enters the deeper layers of *dhatu*s & cleanses every minute part of them. The lipophilic action of *ghrita* facilitates the transportation of the drug to the target organ & finally reaching the cell because cell membrane also contains lipid. This lipophilic nature of *ghrita* facilitates the entry of drug into the eyeball through the corneal surface since the corneal epithelium is permeable to lipid soluble substance, stroma permeable to water & these substances cross the corneal epithelium irrespective of their molecular size⁽⁸⁾. Moreover *ghrita* preparation used in *Akshitarpan* is in the form of suspension containing different particles of drugs & the particles do not leave the eye as quick as a solution. Tissue contact time & bioavailability is more & hence therapeutic concentration can be achieved by *Akshitarpan*. *Triphalaghrita* which is generally used for *Tarpan* is saturated with decoction of various drugs and it contains both lipid and water soluble constituents of *Triphala*. Thus it is lipophilic as well as hydrophilic & hence has got very good penetration through various layers of cornea.

CONCLUSION

The action of *Tarpan* occurs in two ways: First by allowing more absorption of the drug by corneal surface & secondly by exerting direct pressure upon the cornea. There may be changes in the refractive index of the cornea causing less convergence of the light rays.

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