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Tarpana- an Approach to Shushakakshipaka w.s.r. to Dry Eye

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ABSTRACT

Netra is an important sense organ. In the current scenario with the use of advanced technologies like computers, internet surfing, television, Mobiles, use of air conditioners, people are facing more polluted, dusty, dry and hot environment. Due to all these unhealthy surrounding and life style changes the organ which is first and foremost at risk is eye, causing disorders like 'Dry Eye'. It is a tear film disorder caused by tear deficiency or excessive tears evaporation which results in ocular surface damage. The available modern treatment for dry eye has same lacunas like frequent instillation develops drug toxicity and costly regime. To overcome these lacunas and increased prevalence of the disease, it is necessary to look for alternative therapy. *Ayurveda*, the ancient system of medicine gives valuable guidelines not only in treatment aspects but also in preventive line. There is a great need to find out an ocular procedure for prevention and treatment of eye diseases having no or least adverse effect. According to *Ayurveda*, the symptoms of dry eye can be co-relate with *Shushka-Akshipak*, and at the same time treatment modalities are described like *Tarpana* a line of treatment. *Tarpana* is one of the local therapeutic procedure which if promptly used shows objective evidences of excellent responses. In this article there is a review on *Netratarpana* in *Shushkakshipaka* w.s.r to Dry Eye, their indications, contraindications and possible mode of action is discussed.

KEYWORDS

Tarpana, Shushakakshipaka, Dry Eye



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INTRODUCTION

Health was of prime importance in the ancient time as well as is in today's context. *Acharya Charaka* has also mentioned that the man's health get affected by their life style, surrounding and social environment as revealed from *Sadvrita*, *Achara Rasayana* and *Janpadodhawansha*. Therefore, health cannot be isolated from social context. Now people are more curious and conscious towards health. The last few decades have shown that social and economical factors have as much influence on the health as medical interventions.

The branch Ophthalmology is having utmost importance because eye is the organ for visual sensation, if vision is lost everything is lost.

“*SarvendriyanamNayanPrdhanam*”¹. This quotation itself gives the importance of eyes (*Netra*). *Acharya Sushruta* has described 76 eye diseases² with their treatment both in medicinal and surgical way.

Life has completely changed with the use of advanced technologies like computers, internet surfing, television, use of air conditioners, people are facing to more polluted, dusty, dry and hot environment, over use of vehicles and industrialization. Due to all these unhealthy surrounding and life style changes, the organ of which is first

and foremost at the risk is eye, causing disorders like ‘Dry Eye’. *Ayurveda* is the science of great potential for the treatment of such life style related disorders. In *Ayurveda* this disease is not clearly mentioned, but diseases like *Vataj Netraroga* and *ShushkaAkshipaka* to same extent with the symptoms of dry eye and at the same time various treatment modalities are described like *Tarpan*, *Aschotana* etc.

DISEASE REVIEW

Sushka-Akshipaka:-

३यतकुणितदारुणरुक्षवर्त्मविलोकनेचआविलदर्शनतत ।

सदारुणयतप्रतिबोधनेचशुष्कअक्षिपकोपहततदक्षि ॥ (सु.उ६\२६)

The eye gets contracted, slightly closed feeling of dryness in eyes. Eye lashes becomes dry and rough due to which blinking is painful and diminished of vision, burning sensation of eyes and stickiness of eyes.

<i>Doshadushti</i> ⁴	<i>Vata (sushruta)</i> ⁵ <i>Vatapitta. (Vagbhata)</i>
<i>Chikitsa</i>	<i>Ashastrakritta</i>

DRY EYE SYNDROME is a leading cause of ocular discomfort affecting millions of people, with varied aetiology ranging from mild eye strain to very severe dry eyes with



sight threatening complications. Younger patients who work on computer can suffer from dry eye more than elderly. Dry Eye can be – Aqueous Deficiency or Evaporative Dry eye⁶.

SYMPTOMS OF DRY EYE

- Foreign body sensation in eyes
- Ocular irritation, itching
- Discomfort while blinking
- Soreness and burning of eye
- Stinging and photophobia.

SIGNS OF DRY EYE

- Bulbar conjunctival vascular dilatation
- Decreased tear meniscus
- Irregular corneal surface
- Decreased tear break up time
- Superficial punctate keratitis with positive fluorescein stain.

INDICATIONS FOR *TARPANA KARMA*

*Aacharya Sushruta*⁷ -

- Darkness in front of eyes (Blurred vision)
- Dryness of the eyes
- Roughness of the eyes
- Stiffness of eyelids
- Falling of eyelashes Dirtiness of the eyes
- *Vata –pitta* predominant diseases

*Aacharya Vagbhata*⁸ -

- *Kricchronmilana* (difficulty in opening eyes)
- *Siraharsha* (congestion of conjunctival blood vessel)
- *Sirotpata* (episcleritis)
- *Tama* (blackout)
- *Arjuna* (subconjunctival haemorrhage)
- *Syanda* (conjunctivitis) *Adhimantha* (glaucoma)
- *Anayatovata* (referred pain in the eye or sphenoidal sinusitis)
- *Vataparyaya, Avranashukra* (corneal opacity).

CONTRAINDICATIONS FOR *TARPANA KARMA*⁹

- On a cloudy day
- Extreme hot or cold seasons
- In conditions of worries and anxiety
- In conditions of tiredness and giddiness of eyes
- In complications of eyes
- In the condition of acute pain, inflammation, redness

PROCEDURE

*Poorva Karma*¹⁰: Appropriate *shodhanakarma* is carried out according to procedure. Later *stanika abhyanga & mridu swedan* is done.

*Pradhana Karma*¹¹: *Netratarpana* should be carried out in the forenoon or in the



afternoon on an auspicious day after the food (taken by the patient) has been digested. Patient is made to lay supine position in a good lighted, ventilated room free from dust & smoke. Then the eyes are encircled with firm, compact leak proof *pali*(wall) made up of paste of powdered *masha*. According to *Vagbhata pali* is made upto a height of *two angulas*. The patient is asked to close the eyes and over the closed eyes medicated *Ghrita* or *Dugda* liquefied in lukewarm water should be poured to the orbit, till the level of tip of eyelashes. Patient is asked to open & close the eye intermittently & steadily.

Paschata Karma¹²

After retaining of *Ghrita* for a stipulated period, the *Ghrita* is drained out through a hole made at the bottom of dough wall, near the outer canthus of the eye and the eye is irrigated with lukewarm water fomentation. The *kapha* which has already been stimulated by the potency of *Ghrita*, should be eliminated by *Shirovirechan (nasya)*, and fumigation (*dhoompana*) with the *kapha*-suppressive drugs. Patient is instructed to keep away from exposure to bright lights, wind, sky, mirrors and luminous bodies or advised to use dark goggles.

PROBABLE MODE OF ACTION

In cornea the epithelium and endothelium is lipid permeable¹³ i.e., lipophilic whereas stromal layer is hydrophilic. Hence the lipophilic and hydrophilic drugs are effectively delivered to cornea, whereas the drug permeability across the sclera depends upon the molecular size and weight of the drug. The drugs used in *Tarpana* procedure is the combination of *Ghrita* and decoction of medicines, hence the drug can easily cross the corneal epithelium (being lipophilic) and endothelium (being hydrophilic). Also, due to more contact time the active component of drug used in *Tarpana* will be absorbed more to cure the diseases. The *Ghrita* with decoction of medicines has the quality of trespassing into minute channels of the body, hence when applied in the eyes; it enters deeper layers of *Datus* and cleans every minute part. The lipophilic action of *Ghrita* facilitates the transportation of the drug to the target organ and finally reaches the cell because the cell membrane also contains lipids. Moreover, the preparations used in *Netra tarpana* is in the form of suspension containing different particles of the drug and the particles do not leave the eye as quick as a solution.

Tissue contact time and bioavailability is more and hence therapeutic concentration is achieved by *Netratarpana*. This facilitates



the action of drug by different ways, first by allowing more absorption of the drug, by the corneal surface, and secondly by exerting direct pressure up on the cornea. There may be changes of refractive index of the cornea causing less convergence of light rays. Vitamin A deficiency is one of the cause of Dry Eye, *Ghrita* contains good amount of Vitamin A. The drug absorption is directly proportional to the vascularity of absorbing surface. Massage or sudation done in Tarpana as a preoperative procedure, which increase the blood flow of that part and absorption of the drug also increased. Also instillation of *Ghrita*, which is rich in lipid, forms a uniform layer on ocular surface, which reduces excessive evaporation of tear and prevents Dry eye.

CONCLUSION

Eye is the main sense organ gifted by God to human beings. In spite of remarkable progress and advances in the field of modern ophthalmology, there are some limitations to treat dry eye completely. *Ayurveda*, the ancient system of medicine gives valuable guide lines not only in treatment aspects but also in preventive line. According to modern science to prevent dry eye, lubricating eye drop can be used which requires frequent instillation as it has short duration of action

and develop sensitivity due to toxicity of preservative present in medicine like BAK. Our *Acharyas* described *Tarpan* to treat *Sushakshipa*. *NetraTarpana karma* is one of the local therapeutic procedure which if promptly used shows objective evidences of excellent responses. It can be concluded that Tarpana is effective in dry eye syndrome. It is safe economical and easy to perform. It gives same results as compared to prove conventional established treatment which is very costly, so for the treatment of dry eye syndrome this can be alternative treatment of choice.



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