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ABSTRACT Netra is an important sense organ. In the current scenario, the use of advanced technologies like computers, T.V., Mobiles etc. causing disorders like 'Dry Eye'. Because of this, the organ which is first and foremost at risk is "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 some lacunas like drug toxicity, costly regime. To overcome this issue Ayurveda may be useful. According to Ayurveda, the symptoms of Shushkakshipak can be co-related with dry eye. There are various treatment modalities described like Tarpana, Anjan, Aschotan, etc. for Shushkakshipak. Among them Tarpana is one of the local therapeutic procedures which if promptly used shows objective evidences of excellent responses.

KEYWORDS : Dry Eye, Shushkakshipaka, Tarpana

INTRODUCTION

The Ophthalmology branch is having utmost importance because eye is the organ for visual sensation, if vision is lost everything is lost. "Sarvendriyanam Nayan Pradhanam". This quotation itself gives the importance of eyes (Netra). Eye holds a special status among all the five sense organs. Eyes are the most precious gift of God to the living beings. In today's pandemic condition, use of computer is essential for the children, the young and the old. More and more people are sitting in front of the computer for study, for work and spent longer hours, which is a highly vision demanding task. It may cause ocular and systemic discomfort which may lead to Dry eye. Dry eye is one of the most common problems in practice. When tears aren't able to provide adequate moisture, it may lead to dry eye problem. Dry eye is defined as "a multifactorial disease of the tears and ocular surface. In Dry eye, the eye may become dry, red and inflamed and the main symptoms are discomfort and sensitivity to light. *Shushkakshipak*, an etymologically similar entity, has been described in *Ayurvedic* texts whose etiopathogenesis and clinical features are remarkably correlated with that of Dry eye. *Shushkakshipak* is a *Sarvagata Roga*, which means disease affecting all parts of the eye. Also, it is a *Vataja* or *Vata-Pittaja/Vata-Raktaja* curable disease. It has been categorized as an *Aushadhasadhyavyadhi*. *Acharya Sushruta* and *Acharya Vagbhata* have given the detailed description of this disease mentioning its causative *doshas*, clinical features and management. While the description in *Sushruta Samhita* demarcates the early stage, *Vagbhata Samhita* gives details of a fully-fledged picture including *Paka* (inflammatory) stage of the disease. In modern, despite a number of researches being carried out, no curative treatment for Dry eye has been achieved. Only palliative measures in the form of tear replacement therapy with a variety of artificial tear solutions are available which are to be used for lifelong by the patients. Palliative measures also fail to alleviate the symptoms later on due to preservative induced damage to the epithelial lining and basic secretors. *Ayurvedic* texts enlist a number of treatment modalities like *Tarpana*, *Aschotan*, *Anjan* etc. for treatment of the disease. These are the cost-effective treatment modalities. Among them *Tarpana* is one of the treatment modalities which gives nourishment to the eyes and cures *Vata-Pitta predominant diseases* like *Shushkakshipak*.

DISEASE REVIEW

Sushkakshipak:-

By *nidan seven* (Causative factor) *Vata* and *Pitta* gets vitiated. This vitiated *Vata* and *Pitta Doshas* passing through *Sira's* gets accumulated in the parts of the eye like *Vartma*, *Sandhis*, *Shukla Mandala*, *Krishna Mandala*, *Drusti Mandala* and manifests the disease *Shushkakshipak*.

Dosha – *Vata* and *Pitta*,

Dushya – *Rasa*, *Rakta*, *Mamsa*, *Medha*,

Srotas – *Rasavaha Srotas*,

Srotodruti Prakara – *Sanga*,

Rogamarga – *Madhyama*,

Adhithana – *Shiras*

The eye gets contracted, slightly closed feeling of dryness in eyes. Eye lashes become dry and rough due to which blinking is painful and

diminished of vision, burning sensation of eyes and stickiness of eyes. **Dry eye** is a leading cause of ocular discomfort affecting millions of people, with varied etiology ranging from mild eye strain to very severe dry eyes with sight threatening complications. Dry Eye can be – Aqueous Deficiency or Evaporative Dry eye.

SYMPTOMS OF DRY EYE:

- Foreign body sensation in eyes
- Discomfort while blinking
- Ocular irritation, itching
- Eye burning sensation
- Photophobia.

SIGNS OF DRY EYE

- Bulbar conjunctival vascular dilatation
- Irregular corneal surface
- Decreased tear break up time

INDICATIONS FOR TARPANAKARMA

Acharya Sushruta -

- Darkness in front of eyes (Blurred vision), Dryness of the eyes, Roughness of the eyes, Eyelids Stiffness, Falling of eyelashes, Altered or lost lustre of ocular surface

CONTRAINDICATIONS FOR TARPANAKARMA

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

PROCEDURE

Poorva Karma: Appropriate *shodhanakarma* is carried out. Later *stanikaabhyanga* & *mridu swedan* is done.

Pradhana Karma: *tarpana* should be carried out in the forenoon or in the afternoon after the food (taken by the patient) has been digested. Patient is made to lay supine position in a good lighted, ventilated chamber free from direct sunrays & dust. Then the eyes are encircling with firm, compact leak proof *pali* (wall) made up of paste of *masha powder*. According to *Vagbhata*, *pali* is made up to a height of *two angulas*. The patient is asked to close the eyes and over the closed eyes medicated melted *Ghrta* poured slowly to the orbit, till the level of tip of eyelashes. Patient is instructed to open & close the eyes for the stipulated period.

Paschata Karma

Near the outer canthus of the eye, a hole made at the bottom of dough wall. Through this the *Ghrta* is drained out. Then the eye is irrigated with lukewarm water fomentation. The *kapha* which has already been stimulated by the potency of *Ghrta*, should be eliminated by *dhooman* with the *kapha* suppressive drugs. Patient is advised 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 permeable i.e., lipophilic whereas stromal layer is hydrophilic. Because of this, lipophilic and hydrophilic drugs are effectively delivered to the cornea, whereas the drug permeability across the sclera depends upon the molecular size and weight of the drug. In *Tarpana* procedure the drugs used is the combination of *Ghruta* and decoction of medicines, hence the drug can easily cross the corneal epithelium (being lipophilic) and endothelium (being hydrophilic). Also, contact time of procedure is approx. 10-15min so the active component of drug used in *Tarpana* can be absorbed more to cure the disease (Dry eye). The lipophilic action of *Ghruta* facilitates the transportation of the drug to the target organ and finally reaches the cell because the cell membrane also contains lipids. Tissue contact time and bioavailability is more and hence therapeutic concentration is achieved by *tarpana*. Deficiency of Vitamin A is one of the causes of Dry Eye. In *Ghruta*, good amount of Vitamin A, D, E & K is present. Vitamin A keeps epithelial tissue of the body intact and keeps the ocular surface moist. The drug absorption is directly proportional to the vascularity of absorbing surface. In *Tarpana*, *Swedan karma* done as *purvakarma*, which increase the blood flow of that particular part. By this absorption of the drug may also increase. Also instillation of *Ghruta*, which is rich in lipid, forms a uniform layer on ocular surface, which reduces excessive evaporation of tear and prevents Dry eye.

CONCLUSION

Out of five sense organ, Eye is the main sense organ gifted by God. In the field of modern ophthalmology, there are some limitations to treat dry eye completely. *Ayurveda* is the ancient system of medicine which gives valuable guide lines to treat the disease *Sushakshipak*. According to modern ophthalmology to prevent dry eye, lubricating eye drops (like CMC) can be used. But it requires frequent instillation and has short duration of action. Due to toxicity of preservative present in medicine like BAK, it develops sensitivity. Our *Acharyas* described different treatments modalities to treat *Sushakshipak* (dry eye). Among them *Tarpana* is easy & effective procedure. *Tarpana* is one of the local therapeutic procedure which if promptly used shows objective evidences of excellent responses. Also *Ashru* (tear film) is the byproduct of *Rasa, Meda and Majjadhātu*. Without normalizing or altering them we cannot treat dry eye syndrome optimally. *Ghruta* gives nourishment to all the *dhatu* which leads to treat the disease. It gives excellent results as compared to prove conventional established treatment which is very costly, so this may be alternative treatment of choice for dry eye.

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