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 lifestyle 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 Shushakakshipaka 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 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”. This quotation itself gives the importance of eyes (Netra). Aacharya Sushruta has described 76 eye diseases 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:

3यतकुणितदाराणंकश्चवलंविलकुकशचआविलदश
नतत  |
सदारुियतप्रततबोधनेचर्ुष्कअक्षक्षपकोपहत
क्षक्ष  || (सु.उ.6126)

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.

<table>
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<th>Doshadushti</th>
<th>Vata (sushruta)</th>
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<td>Chikitsa</td>
<td>Vatapitta.(Vagbhata)</td>
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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 Vagbhatta**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 encircle with firm, compact leak proof pali (wall) made up of paste of powdered masha. According to Vagbhatta pali is made up to 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 Karma**

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 permeable 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 lypophilic) 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. Inspite of remarkable progress and advances in the field of modern ophthalmology, there are some limitations to treat dry eye completly. 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. Netra Tarpana 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.
REFERENCES