

A literary study of Post-Menopausal Dry eye syndrome

*DR. VIKAS KUMAR, **DR. SANTOSH MULIK, ***DR.D. B KADAM, ****DR. SARITA MULIK

*PG Scholar, Bharti Vidyapeeth College of Ayurveda, Pune, Maharashtra, India.

**Associate Professor of Shalakya Tantra Department, Bharti Vidyapeeth College of Ayurveda, Pune, Maharashtra, India.

****Professor and H.O.D. of Shalakya Tantra Department, Bharti Vidyapeeth College of Ayurveda, Pune, Maharashtra, India.

**** Assistant Professor of Shalakya Tantra Department, Bharti Vidyapeeth College of Ayurveda, Pune, Maharashtra, India.

ABSTRACT

Dry eye disease (DED), also known as dry eye syndrome (DES), keratoconjunctivitis sicca (KCS), and keratitis sicca, is a multifactorial disease of the tears and the ocular surface that results in discomfort, visual disturbance, and tear film instability with potential damage to the ocular surface.^[1] Dry eye disease is a common form of ocular surface disease (OSD) and may overlap with other causes of OSD, such as ocular allergy and Meibomian gland dysfunction (MGD).

In the year during menopause transition, females go through many hormonal changes. After menopause female body makes less reproductive hormones like estrogens and progesterone. Low levels of estrogen can impact female health in a variety of ways and cause uncomfortable symptoms, like hot flashes, dry eye syndrome etc. Post-Menopausal dry eye syndrome affects about 90% of the people after the post menopause.

KEYWORDS: -

Tear film, Dry eye syndrome, Shushkakshipaka.

INTRODUCTION: -

Tears are constantly secreted throughout the day by accessory and main lacrimal glands. Wolff was the first to describe the detailed structure of the fluid covering the cornea and called it precorneal film.

Post-menopausal Dry eye syndrome is a clinical condition characterized by deficient tear production during menopause transition, females go through many hormonal changes. After menopause female body makes less reproductive hormones like estrogens and progesterone. Low levels of estrogen can impact female health in a variety of ways and cause uncomfortable symptoms, like hot flashes, dry eye syndrome etc. Dry eye syndrome is caused by lack of sufficient lubrication on surface of eyes due to disturbance of tear film Post-Menopausal dry eye syndrome affects about 90% of the people after the post menopause resulting in ocular discomfort.

In a study published in *JAMA* (the Journal of the American Medical Association), researchers found that post-menopausal women being treated with HRT had higher prevalence's of dry eye syndrome than women of the same age who opted not to undergo HRT — 69 percent higher among women receiving estrogen alone, and 29 percent higher among those receiving estrogen plus progesterone or progestin.

Dry eye syndrome: -

Dry eye syndrome is caused by a chronic lack of sufficient lubrication and moisture on the surface of the eye.

Consequences of dry eyes range from subtle but constant eye irritation to significant inflammation and even scarring of the front surface of the eye.

Symptoms: -

Burning sensation, Itchy eyes, Aching sensations, Heavy eyes, Sore eyes, Dryness sensation, Red eyes, Photophobia (light sensitivity), Blurred vision

Signs

1. Tear film sign: -it shows particulate matter and stingy mucous
2. Conjunctival signs: - conjunctiva become mildly congested, lustreless, rose Bengal may be positive, keratinization.
3. Corneal signs: -punctate epithelium erosion that stain well with fluorescein. Cornea may lose lustre. Mucous plaques with similar constituents.
4. Signs of causative diseases such as posterior blepharitis, conjunctival scarring diseases and lagophthalmos.

Types of Dry eye syndromes

1. Aqueous deficiency dry eye – It's also known as keratoconjunctivitis sicca(KCS) IT Include:
 - A) Sjogren's syndrome (primary keratoconjunctivitis sicca) its autoimmune chronic inflammatory disease. It occurs in women above 40 years of age.
 - B) Non- sjogren's keratoconjunctivitis sicca Causes can be grouped as below.
 - *Primary age-related hyposecretion
 - *Lacrimal gland deficiencies
 - *Lacrimal gland duct obstruction
 - *Reflex hyposecretion
2. Evaporative dry eye – causes can be grouped as:
 - A) Meibomian gland dysfunction
 - B) Lagophthalmos
 - C) Defective blinking
 - D) Vitamin A deficiency and other factors

Differential diagnosis: -

- 1) Blepharitis
- 2) Allergic conjunctivitis
- 3) Neurotrophic keratopathy
- 4) Toxic keratopathy
- 5) Ocular rosacea
- 6) Contact lens complications
- 7) Floppy eyelid syndrome

Diagnosis: -

1. Tear film break-up. It is the interval between a complete blink and appearance of first randomly distributed dry spot on the cornea. It is noted after instilling a drop of fluorescein and examining in a cobalt-blue light of a slit-lamp. BUT is an indicator of adequacy of mucin component of tears. Its normal values range from 15 to 35 seconds. Values less than 10 seconds imply an unstable tear film.
2. Schirmer-I test. It measures total tear secretions. It is performed with the help of a 5 × 35 mm strip of Whatman-41 filter paper which is folded 5 mm from one end and kept in the lower fornix at the junction of lateral one-third and medial two-thirds. The patient is asked to look up and not to blink or close the eyes (Fig. 15.4). After 5

minutes wetting of the filter paper strip from the bent end is measured. Normal values of Schirmer-I test are more than 15 mm. Values of 5-10 mm are suggestive of moderate to mild keratoconjunctivitis sicca (KCS) and less than 5 mm of severe KCS.

3. Rose Bengal staining. It is a very useful test for detecting even mild cases of KCS. Depending upon the severity of KCS three staining patterns A, B and C have been described: 'C' pattern represents mild or early cases with fine punctate stains in the interpalpebral area; 'B' the moderate cases with extensive staining; and 'A' the severe cases with confluent staining of conjunctiva and cornea

Treatment: -

1. Supplementation with tear substitutes. Artificial tears remain the mainstay in the treatment of dry eye. These are available as drops, ointments and slow release inserts. Mostly available artificial tear drops contain either cellulose derivatives (e.g., 0.25 to 0.7% methyl cellulose and 0.3% Hypromellose) or polyvinyl alcohol (1.4%).
 2. Topical cyclosporine (0.05%, 0.1%) is reported to be very effective drug for dry eye in many recent studies. It helps by reducing the cell-mediated inflammation of the lacrimal tissue.
 3. Mucolytics, such as 5 percent acetylcysteine used 4 times a day help by dispersing the mucus threads and decreasing tear viscosity.
 4. Topical retinoids have recently been reported to be useful in reversing the cellular changes (squamous metaplasia) occurring in the conjunctiva of dry eye patients.
 5. Preservation of existing tears by reducing evaporation and decreasing drainage.
- * Evaporation can be reduced by decreasing room temperature, use of moist chambers and protective glasses.
- * Punctal occlusion to decrease drainage can be carried out by collagen implants, cyanoacrylate tissue adhesives, electrocauterization, argon laser occlusion and surgical occlusion to decrease the drainage of tears in patients with very severe dry eye.

Shushkakshipaka

Shushkaakshi paka is sarvagatha, vataja, aushada (ashastra krutha) sadhya vyadhi.

Eye lids are closed and are opened with difficulty, lids become hard rough and eye looks dirty and lusterless.

Hetu: -

Netraroga sannikrushta and viprakrushta hetu

Samprapti: -

Aggravate's Vata and pitta dosha. vitiates raktadhatu in the sira (increased rukshata and daha, etc.)-Vitiated doshas moves towards the eye through sira.-Kha-vaigunya present in the Sarvaksh- Produces symptoms like rukshata, daah, -kandu, aaraktata, aavil netrata, etc-Shushkakshipaak.

Chikitsa: -

Shushkakshipaak can be treated by the following.

- 1) Anjana, dhoompan, nasya with snigdha drava.
- 2) Jeevaneeya ghrita tarpan.
- 3) Brumhana taila or anutaila nasyam.

- 4) Saindhava lavana + lukewarm milk for eye wash(pariseka)
- 5) Bidala with fried lodha+ ghrita
- 6) Anjana with Shunti + Stanya + Ghrita.

DISCUSSION

Dry eye syndrome is a disease having exact similar characteristics to Shushkakshipaak explained in Ayurvedic science. As vata and pitta dosha concerned with degeneration, and there is vata vrudhi in old age where even the modern ophthalmologist have accepted that the degenerations concerned to tear films becomes more common after the post menopause.

Menopausal dry eye syndrome affects about 90% of the people after the post menopause resulting in ocular discomfort.

In a study published in *JAMA* (the Journal of the American Medical Association), researchers found that post-menopausal women being treated with HRT had higher prevalence's of dry eye syndrome than women of the same age who opted not to undergo HRT — 69 percent higher among women receiving estrogen alone, and 29 percent higher among those receiving estrogen plus progesterone or progestin

CONCLUSION

- 1) Now a days Post-menopausal is a common problem. Post-menopausal dry eye syndrome is somewhat related to shushkakshipaka in Ayurveda. In modern treatment Supplementation with tear substitutes, Topical cyclosporine etc can be used, In ayurvedic treatment Jeevaneeya ghrita tarpan, Brumhana taila or anutaila nasyam etc can be used for treating dry eye syndrome.

REFERENCES

- (1). A K Khurana & Aruj K Khurana. Comprehensive Ophthalmology. New Delhi. Jaypee Brothers Medical Publishers (P) Ltd. 6, 623, 59.
- (2). American Academy of Ophthalmology – Eye Wiki.
- (3). Ramanjit Sihota & Radhika Tandon. Parsons “ Diseases of the Eye. New Delhi. Elsevier- A division of Reed Elsevier India Pvt. Ltd. 21, 2011. 184.
- (4). Jack J Kanski. Clinical ophthalmology A Systematic approach. London. Butterworth Heinemann. 5, 2003, 242.
- (5). American Academy of Ophthalmology – Eye Wiki.
- (6) Sushrutasamhita, Ayurveda Tattva Sandipika Hindi commentary by Shastri Ambikadutta, Chaukhambha Orientalia Varanasi. Reprint, 2001; Uttartantra 1 (26,27) 11
- (7) Sushrutasamhita, Ayurveda Tattva Sandipika Hindi commentary by Shastri Ambikadutta, Chaukhambha Orientalia Varanasi. Reprint, 2001; Uttartantra chapter 1 (20,21)10
- (8) Ashtanga sangraha of vriddha vagbhata with the Shashilekha Sanskrit commentary by Indu, edited by Dr .Shivprasad Sharma, sutrasthana, chapter -33(2), 964, 697-698.
- (9) Yogratnakar with Vidyotini teeka by Vaidya Shreelaxmipatishastri, Chukhambha Orientalia Varanasi , reprint 1988. Uttarardh 380.
- (10) Sushrutasamhita, Ayurveda Tattva Sandipika Hindi commentary by Shastri Ambikadutta ,Chaukhambha Orientalia Varanasi. Reprint, 2001; Uttartantra