

COMPUTER VISION SYNDROME A LIFESTYLE DISORDER AND ITS MANAGEMENT THROUGH AYURVEDA – A CASE STUDY

Dr V. G.Dhakate (Guide), Vd .Vivek Shukla (P.G.scholar)

Govt. Ayurved College, Nagpur.

ABSTRACT

Computer Vision Syndrome or Digital eye strain is the temporary discomfort that follows two or more hours of digital device use. It has become a common problem not only in the workforce but also in kids who stare at video games and mobile phones for long hours. Surely computer vision syndrome is not a dreadful health condition, but it will decrease the work efficiency of the individual.

In Ayurvedic consideration mithyayoga of Indriyas and their Arthas are main cause of lifestyle disorders, in computer vision syndrome basically Ati and mithya yoga of kashu-indriya (eye) and their artha occurs leading to manifestation of disease

Ayurvedic principle and procedure like Tarpan and other kriyakalp may relief symptoms of Computer Vision Syndrome

INTRODUCTION

According to American Optometric Association, Computer Vision Syndrome (c.v.s.) is defined as “The complex of eye and vision problems related to near work which are experienced during or related to computer use.”[1]

In the present era computer has become an important gadget for doing any type of work. Computer or any visual display terminals (VDTs) are an essential part of modern life. The exponential increase in the new era of occupational hazards collectively known as Computer Vision Syndrome

According to Bio Med Central (BMC) research work prevalence of Computer Vision Syndrome in computer workers is 75-90%. Where as according to National Institute For Occupational safety and health, Computer Vision Syndrome affects about 90% of people who spend 3 or more hour per day, at a computer.[2]

| Symptom category | Symptom | Diagnosis or cause |
|------------------------|--|--|
| Asthenopic | Eye Strain Tired Eyes Sore Eyes | Binocular vision Accommodation |
| Ocular surface related | Dry eye Watery Eyes Irritated eyes | |
| Visual | Blurred vision Slowness of focus changes Double vision | Refractive errors Accommodation Binocular vision |
| Extra ocular | Neck pain Back pain Shoulder pain | Presbiopic correction Computer screen location |

Computer Vision Syndrome has no any direct reference in *ayurvedic samhitas*. According to *ayurveda* Computer Vision Syndrome is a result of vitiated *doshas* due to excess use of computer or any other Visual display terminals. Computer Vision Syndrome can be included in *anukta vyadhi*.

Ayurveda describes a similar condition called *Shushkakshipaka*, which matches etymological[4] derivation and clinical picture[5] *Shushkakshipaka* is mentioned in the classical literature of Ayurveda under *Sarvagata Netraroga* (diseases affecting all parts of the eye).

As per Ayurveda, each patient of dry eye needs a different approach as the etiology and pathology are variable. *Vata-Pitta/Rakta*[5] vitiation in *shushkaksipaka* is the basic pathology due to disturbed system biology which needs a holistic approach to deal with the problem.

Shushkakshipaka [6]

the word *Shushkakshipaka*- *Shushkta*-dryness, *akshi*-eyeball, *paka*- inflammation. It means inflammation of eyeball due to dryness caused by altered coherence of *ashru*.

Dosha - *vata dosha* *vata pitaja* (*Acharya vagabhata*)

Sthana –*sarvagat roga*.

Sadhyasadhyta - *sadhya*

(IJRMST) 2018, Vol. No. 6, Jul-Dec

e-ISSN: 2455-5134, p-ISSN: 2455-9059

- The standard treatment of *Vata Dosha* is *Snehan*. Therefore *Tarpana* with *Ghrita* is recommended effectively.[7]
- *Mahatriphaladhya Ghrita* has property of *Rasayana*, *Netrya*, *Balya* and *Tridoshaghna* .
- In *Ayurveda Netratarpana* is described as purification and rejuvenation treatment as a part of *panchakarma* treatment.
- So here a case of dry eye in computer users managed with *Mahatriphaladhya Ghrita Tarpana* is reported.

CASE REPORT

- Name of patient- xyz Age / sex- 21 yrs / male
 - OPD No-95697 Place- Nagpur
 - Occupation- B.E (Computer science) student
- Date of consultation- 10/12/2017

Chief complains:-

- Dryness of eyes
- Foreign body sensation
- Burning sensation 5 month
- Blurry vision

Present & past history

H/o using artificial tears drops since 2month

No H/o DM, RA or any other major illness.

No H/o any refractive surgery.

Ocular Examination

1.Slit Lamp Examination

- Visual acuity of RE was 6/9 and of LE was 6/9.

The slit lamp examination of both eyes revealed –

- Eyelid – Normal.
Conjunctiva –mild congestion and conjunctival dryness.
- Cornea – Dryness present.
- Anterior chamber – Normal depth.
- Iris – Colour pattern normal.
- Pupil – Normal size, Reacting to Light
- Lens – Normal

SYSTEMIC EXAMINATION

- G.C. - Moderate, Afeb
- R.S. – B/L Air entry equal no added sound all lung field clear.
- C.V.S. - S1 S2 Normal
- C.N.S – Concious, well oriented
- **Tear break-up time (BUT) –**
- Fluorescein strip moistened with non preserved saline was instilled in lower lid and asked to blink several times.
- Tear film was examined at slit lamp with broad beam using cobalt blue filter. After an interval of >10 seconds black spots appeared in fluorescein stained film indicating formation of dry areas.
- RE- 6 Sec
- LE- 5 Sec
- **Schirmer-1- test-**
- Schirmer filter paper 5*35mm long folded 5mm from one end was inserted at the junction of middle and outer one third of lower lid without topical anesthetic and asked the patient to keep the eyes closed.
- After 5 minutes the strip was removed and there was > 6 mm wetting of filter paperis indicative of dry eye.

- Measurement and score-
- Normal - > or 10 mm
- Borderline - 10 to 6 mm
- Deficient - < or 6 mm

Treatment

There are many ayurvedic procedures and treatment modules which can help patient to overcome symptoms of c.v.s., in this study I will demonstrate effect of Tarpana with Mahatriphaladya ghrita on C.V.S.

- Mahatriphaladya ghrita Tarpana .
- Dose - 20 ml once a day.
- Route of administration – Topical
- Time of administration –once a day(in morning).
- Duration of therapy-(30 days)

The patient was treated with Mahatriphaladya *Ghrita Tarpana* of 3 settings of 7 days with 3 days interval.

Poorva karma

Preparation of the patients-

- patients (Rogi) to be treated with Tarpana should be placed in a comfortable position i.e. supine position and the part should be cleaned.

Then mrudu Sweda will be given. Sterile Cotton dipped in lukewarm water after squeezing would be used for Swedana karma.

Pradhan karma

- Construct of parimandala (pali or well) around the eye a height of 2 angulis with Mashpishti.
- Mahatriphaladya Ghrita (luke warm) is poured into parimandala till the eyelash lavelle whene eye closed.
- Patient is asked to open and closed the intermittently and steadily upto the 10 min (500 matra) .

Paschat karma

- A small opening made pali near apang sandhi and gritha is slowly drain out.
- Eyes should be cleared with cotton by removing the Mashapishti .
- Mrudu swedana is done with starile cotton dipped into luke warm water.

Results

| Sr no | Symptoms | Before treatment | After treatment |
|-------|------------------------|------------------|-----------------|
| 1 | Dryness of Eyes | Present | Absent |
| 2 | Foreign body sensation | Present | Absent |
| 3 | Burning sensation | Present | Absent |
| 4 | Blurry vision | BE-6/9 | BE-6/6 |

| Sr no | Test | Before treatment | After treatment |
|-------|-------------------------|------------------------------|--------------------------------|
| 1 | Tear film break up time | RE LE 6 Sec 5 Sec | RE LE 12 Sec 12 Sec |
| 2 | Schirmer 1 test score | RE LE 6 mm 6mm | RE LE 10 mm 10mm |

Discusion In the management of C.V.S. modern science don't have holestic approach , it only deals with artificial tears and gels etc but in ayurveda there are certain procedures which can help in holestic management of C.V.S. as Tarpana ,Nasya,Bidalaka,etc .various studies are carried out to rule out effects these procedures in life style disorders as C.V.S..

CONCLUSION

- Dry eye syndrome is more common disorder in computer users with asthenopic symptoms without any satisfactory treatment in modern science.
- This study concluded that Tarpana with Mahatriphaladi ghrita is effective and given symptomatic relief to the patient and improvement in tear break up time and schirmer's test values.
- That may be because of increase in stability of lipid layer of tear film. And local snehan and swedan causes improvement in functioning of glands of eye and gives nourishment to the ocular surface.

REFERENCES

- [1] Tsubota K, Nakamori K. Dry eyes and video display terminals N Engl J Med **1993;25;584**
- [2] Ramanjit Sihota Person's Diseases of the eye 21st Edition, 2011, Elsevier, A Division of Reed Elsevier India Private Limited
- [3] Kunal Kanitkar MD, Alan N Carlson MD, Richard Y . Review of ophthalmology. Vol no 12; issue 4/15/05
- [4]. Amarkosha: Pt. Hargovinda Shastri. Varanasi: Choukhambha Sanskrita Sansthan; 1982. Vachaspatyam: Sri Tarkanath Tarkavachaspati. Varanasi: Krishanadass Academy; 1990.
- [5]. Sushruta Samhita Uttartantra with Nibhanda Sangraha commentary by Dalhana Acharya: Acharya Yadavji Trivkramji - 6/26. Varanasi: Chaukhamba Surbharti; 2008. Astanga Hridaya Uttartantra with Arunadutta commentary - 15/16. Varanasi: Chakumba Surbharti Prakashan; 2002.
- [6]] यत् कृणितं दारुणरूक्षवर्त्म विलोकने चाविलदर्शनं यत् ॥ सुदारुणं यत् प्रतिबोधने च शुष्काक्षिपाकोपहतं तदक्षि ॥ सु.उ. ६-२६
- Sushrut samhita Dalhana comm.. – Nibandhasangraha, Chowkhambha orientalia Varanasi, 2002, Uttartantra 6/3-4, 1/5-6.
- [7] fLuXËk“pk= riZ.kiqVikdk% AA vaa-la-m-20
- Vrddha Vagabhata, Ashtanga Samgraha – Sasilekha comm.. Indu,
- Chukhambha Krishana Das Academy, Varanasi, 2000; Sareerasthana 18/14.