



ISSN (O): 2320-5407
ISSN (P): 3107-4928

Journal Homepage: www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/24123
DOI URL: <http://dx.doi.org/10.21474/IJAR01/24123>



RESEARCH ARTICLE

COMPUTER VISION SYNDROME - AN AYURVEDIC PROSPECTIVE

Snehlata¹, Usha Jakhar¹, Rajeev Kumar Pandey² and Divya Gupta³

1. MD Scholar, Department Of panchakarma, M.M.M. Ayurved College, Udaipur.
2. Associate professor & H.O.D. Department Of panchakarma, M.M.M. Ayurved College, Udaipur.
3. Assistant professor, Department Of panchakarma, M.M.M. Ayurved College, Udaipur.

Manuscript Info

Manuscript History

Received: 08 July 2026

Final Accepted: 10 August 2026

Published: September 2026

Key words:-

Computer Vision Syndrome,
Chakshurindriya Atiyoga, Vata Dushti,
Netra Roga, Digital Eye Strain,
Shushkakshipaka

Abstract

In Ayurveda eye is one of the Gyanendriya (sense organ) which has dominance of Tej Mahabhuta. Vision is one of the most important sensory functions, enabling humans to perceive and interpret their surroundings. With the rapid advancement of technology, computers have become an essential part of daily life. Many professions now require prolonged computer use, often exceeding eight hours per day. Extended exposure to digital screens has led to an increase in visual and ocular problems collectively known as Computer Vision Syndrome (CVS). Computer Vision Syndrome refers to a group of eye and vision-related symptoms that result from prolonged screen use. Common symptoms include eye strain, dryness, irritation, blurred vision, and discomfort in the surrounding ocular muscles. These symptoms are primarily associated with reduced blink rate, prolonged focusing effort, and exposure to monitor light, which contribute to tear film instability and dry eye conditions. As CVS is a disorder associated with modern technological use, it is not described directly in classical medical literature. Nevertheless, its clinical features can be correlated with Shushkakshipaka, a type of Sarvagata Netraroga described in Ayurveda. Ayurveda offers a systemic pathophysiological framework rooted in Chakshurindriya Atiyoga, Vata-Pitta Dushti, and Netra Roga Siddhanta. The present article critically integrates classical Ayurvedic principles with modern understanding to construct a coherent conceptual model for the etiopathogenesis and management of Computer Vision Syndrome.

"© 2026 by the Author(s). Published by IJAR under CC BY 4.0. Unrestricted use allowed with credit to the author."

Introduction:-

Computer Vision Syndrome (CVS) is not explicitly described in the classical Ayurvedic texts; however, it can be correlated with Shushkakshipaka, which is categorized under Sarvagata Netraroga in Ayurveda. CVS developed in the late twentieth century with the rapid expansion of computer and digital device usage. Therefore, its understanding and management from an Ayurvedic perspective should be established based on the fundamental principles of Ayurveda before formulating a line of treatment. The Nidana (etiological factors) and Samprapti (pathogenesis) of CVS can be explained through the concept of Trividha Hetu, namely Asatmyaindriyarthasamyoga (impro

per or excessive use of the sense organs), Pragyapradha (intellectual error leading to unhealthy behavioral practices), and Parinama (time-related and environmental influences). In CVS, excessive and inappropriate use of Chakshurendriya (visual apparatus) plays a central role in disease development. Clinically, the signs and symptoms of Shushkakshipaka, which resemble those of CVS, are associated with Vata-Pitta Pradhan Tridosha vitiation at the level of Chakshurendriya. This results in Sthaansamshreya (localization) of aggravated Doshas in the Netra, leading to ocular dryness, irritation, burning sensation, visual fatigue, and discomfort. According to the American Optometric Association (AOA), Computer Vision Syndrome is defined as “a complex of eye and vision problems related to near work that are experienced during or associated with computer use.”

Aim and Objectives:-

The main aim behind working in this article was to create an Ayurvedic understanding of computer vision syndrome to know about the Dosha Dushya Samurcharna & Samprapti Ghatak. Computer Vision Syndrome has no direct reference in Ayurvedic texts; it could be correlated to the signs and symptoms of Shushkakshipaka of Sarvakshiroga described by acharya Sushruta under Saadhya Vyadhi.

Disease Review:-

An ayurvedic approach can be given on the idea of basics of Ayurveda. Nidana and Samprapti can be understood by Trividha Hetus (Asatmyaindriyarthasamyoga, Pragyapradha, Parinama) associated to Chakshurendriya (eye). The signs and symptoms of CVS are associated with Vata -Pitta pradhana Tridoshavitiations at Chakshurendriya leading to Shushkakshipaka.

Nidana:-

Acharyas have described Hetu of all Netra Rogas in general.

¹ उष्णाभितप्तस्य जलप्रवेशाद्दूरेक्षणात् स्वप्नविपर्ययाच्च द्यप्रसक्तसंरोदनकोपशोकक्लेशाभिघातादतिमैथुनाच्च॥26॥

शुक्ता रनालाम्लकुलत्थमाषनिषेवणाद्वेगविनिग्रहाच्च।

स्वेदादथो धूमनिषेवणाच्च छर्देर्विघाताद्वमनातियोगात्।

बाष्पग्रहात् सूक्ष्मनिरीक्षणाच्च नेत्रे विकारान् जनयन्ति दोषाः द्यद्य॥27॥ (Su.utr. 1\26-27)

When a person heated by the sun suddenly enters cold water, looks excessively at distant objects, stays awake at night, and continuously experiences laughter, anger, grief, sorrow, injury, and excessive sexual activity; excessive intake of substances like alkalis (kshara), sour items, horse gram (kulthi), and black gram (urad); suppression of natural urges such as flatus and urine; excessive sweating, excessive smoking, obstruction of tears, and constantly observing minute objects (like fine needlework etc) these aggravate Vata and other doshas and produce diseases of the eyes.

Vishesha Nidana²:-

1. Chakshurindriya Atiyoga :- Prolonged screen fixation directly corresponds to Atiyoga (over-utilization) of Chakshurindriya. Classical texts describe Atiyoga as a principal etiological factor in Indriyaja Vikara. Continuous accommodative effort and reduced blinking mirror this pathological overuse.

2. Dosha Involvement

Vata Dosha: Primary involvement due to ruksha (dryness), chala (instability), and overactivity.

Pitta Dosha: Secondary aggravation due to exposure to intense light and glare. Dryness, foreign body sensation, and ocular fatigue signify Vata predominance, whereas burning sensation and redness indicate Pitta association.

Causes of Computer Vision Syndrome:-

1. Distance and angle from computer screen
2. Less lightening in room
3. Glare at the display screen
4. Reduced blink rate
5. Increased tear evaporation

Symptoms of Computer Vision Syndrome These arise because the visual needs of the task exceed the visual ability of the individual to comfortably do that task. At greater risk for developing computer vision syndrome are those people who spent eight or more hours daily at computer. Common symptoms include: Eyestrain, headaches, blurred vision, difficulty in changing focuses between far and near, dryness of eyes, irritated eyes, tired eyes, redness, contact lens discomfort

Purvarupa³:-

Purvarupa are prodromal symptoms prior to disease felt by the patient.

Samanya Purvarupa of Netrarogas-

तत्राविलं ससंरम्भमश्रुकण्डूपदेहवत्।गुरूषातोदागाद्यैर्जुष्टाव्यक्तलक्षणैः ॥२१॥

सशूलं वर्मकोषेषु शूकपूर्णाभमेव च ॥२२॥

विहन्यमानं रूपे वा क्रियास्वक्षि यथा पुरा।दृष्ट्वैव धीमान् बुध्येत दोषेणाधिष्ठितं तु तत् ॥२३॥

- Avilata (Blurred vision)
- Sa Samrambham(Angry look)
- Ashru (Watering)
- Kandu (Itching)
- Upadeha (Coating)
- Guruta (Heaviness)
- Usha (Burning sensation)
- Toda (Pricking pain)
- Raga (Reddish discoloration)
- Vartmakosha Sula (Painful lids)
- Vartmakosha Sukapurnabha (Foreign body sensation in lids)
- Kriyaswakshiyathapura (Reduced movements like blinking)

Few of the above Purvarupas are also present in prodromal symptoms of Shushkaakshipaaka like: Avilata (Eye strain and asthenopia), Sasamrambha (Foreign body sensations or atypical discomfort in eye), Kandu (Itching as a symptom because of eye strain), Guru (Eye fatigue), Usha (Burning sensation), Toda (Pain in eyes), Sashulamvartmakoshaishu (Pain in eye lids), Sukapurnabham (Foreign body sensation) can be considered as Purvarupa of Shushkaakshipaaka.

3. Lakshana⁴:-

Shushkaakshipaaka is characterized by excessive closure and roughness in eye lids, associated with difficulty in lid movements, blurred vision, burning sensation.

यत् कूणितं दारुणरूक्षवर्त्म विलोकने चाविलदर्शनं यत्।

सुदारुणं यत् प्रतिबोधने च शुष्काक्षिपाकोपहतं तदक्षि ॥ २६॥(सु.उ.6/26)

- Rukshta (Feeling of Dryness)
- Avila darshana (Blurred vision)
- Gharshan (Gritty sensation)
- Daruna Vartmakshi (Hardness of eyelids)
- Krichrounmilana(difficulty in opening and closing of eye)
- Daha (Burning sensation)
- Intolerance to light

According to Acharya Vagbhatta⁵:- is characterized by:-

- Gharshna (foreign body sensation)
- Toda (pricking pain)
- Upadeha (loss of clear vision due to waste deposition)
- Rooksha Daruna Vartma (hardness and roughness of the eye lids)
- Krichra Unmeela Nimeela (difficulty in closing and opening of lids)

- Shushkata(dryness)
- Shoola(pain)

Symptoms of Computer Vision Syndrome These arise because the visual needs of the task exceed the visual ability of the individual to comfortably do that task. At greater risk for developing computer vision syndrome are those people who spent eight or more hours daily at computer. Common symptoms include: Eyestrain, headaches, blurred vision, difficulty in changing focuses between far and near, dryness of eyes, irritated eyes, tired eyes, redness, contact lens discomfort.

Upashaya⁶:-

Signifies medicines, food items and activities which give feelings of well-being to the patient. Sheethechha – Likeness for cold, it can be considered as the patient might feel better while washing the eyes with cold water.

Anupashaya:-

All the Nidanas can be considered as Anupashaya for Shushkaakshipaaka.

Sadhyasadhyata⁷:-

Sarvagata Aushadha Sadhya Vyadhi.

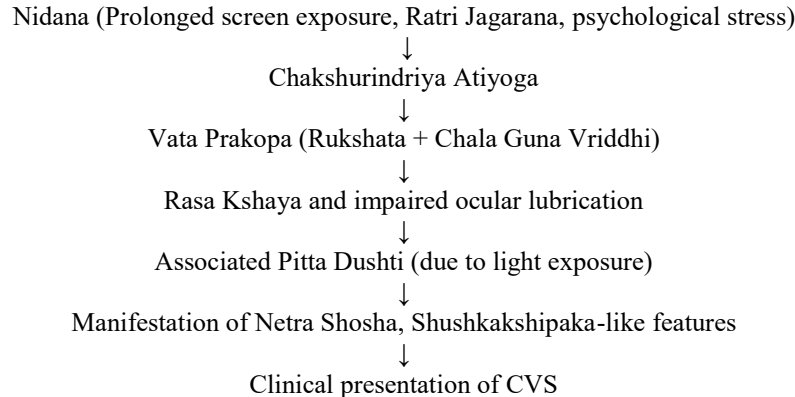
Samprapti:-

Samanya Samprapti: Samanya Samprapti of Netraroga can be considered.

Vishesha Samprapti:

Due to the Nidana Sevana, VataPitta gets vitiated and passes through Urdhwa Sira's and gets accumulated in the parts of the eye like Vartma, Sandhi, Shukla Mandala, Krishna Mandala, Drushti Mandala (Sarvagata) and manifests the disease as Shushkaakshipaaka.

The Samprapti of Computer Vision Syndrome may be constructed as:-



Samprapti Ghataka

Dosha	Vata-Pitta and Rakta
Dushya	Rasa-Rakta
Agni	Mandagni
Srotas	Rasa-Raktavaha
Srotas Srotodushti	Sanga
Rogamarga	Madhyama
Adhistana	All Netramandalas

Clinical Correlation

Modern Symptom	Ayurveda Correlation
Dryness	Netra Shosha
Burning	Pittaja Netra Lakshana
Blurred vision	Vata-induced functional disturbance
Headache	Urdhvajatrugata Vata
Eye strain	Chakshurindriya Klama

The reduced blink rate documented in digital device users parallels disturbance in Nimesha-Unmesha Kriya described in Ayurveda.

Management Principles in Ayurveda⁸:-

सैन्धवं दारु शुण्ठी च मातुलुङ्गरसो घृतम् ॥२०॥

स्तन्योदकाभ्यां कर्तव्यं शुष्कपाके तदञ्जनम्। पूजितं सर्पिषश्चात्र पानमक्ष्णोश्च तर्पणम् ॥२१॥

घृतेन जीवनीयेन नस्यं तैलेन चाणुना। परिषेके हितञ्चात्र पयः शीतं ससैन्धवम् ॥२२॥

रजनीदारुसिद्धं वा सैन्धवेन समायुतम्। सपिर्युतं स्तन्यघृष्टमञ्जनं वा महौषधम् ॥२३॥

(सु. उ. 9/20-23)

Powder of saindhava lavana (rock salt), daruharidra, and shunthi (dry ginger) should be prepared and triturated with lemon juice. This should be mixed with ghee and applied to the eyes; later it can be used as an añjana (collyrium) after mixing with a little milk and water. In addition, application of ghee to the eyes and eye-tarpana (retention of medicated ghee over the eyes) are beneficial. Nasya (nasal therapy) should be performed with jivaniya ghrita or with anu taila⁹. For cooling the eyes, washing with decoctions of durva or kasheruka mixed with ghee is recommended. Collyrium prepared from these drugs with ghee should be applied, or anjana prepared by triturating them with milk may be used. Similarly, fine paste of saindhava with ghee may be applied, or powdered shunthi mixed with ghee may be used as a paste over the eyes to relieve dryness and inflammation. Aschotana can be performed with Darvi, Prapaundarika Kwatha, Manjishta Kwatha, Mridweeka Kwatha or Chandanadi Kwatha.¹⁰ Anjana can be performed with Masi should be obtained by burning the hair dipped in ghee in Antardhuma Karma.¹¹ Basti Karma with Ghrita Manda, Madhuka and Shatavari are specially indicated in the treatment of Shushkaakshipaaka.¹

Nidana Parivarjana:-

Primary intervention includes regulation of screen exposure and restoration of physiological blinking rhythm.

Shamana Therapy:-

- Triphala Ghrita (internal and topical)
- Snehana for Vata pacification
- Chakshushya Dravya administration

Netra Kriya Kalpa:-

- Tarpana
- Putapaka
- Aschyotana
- Anjana

These procedures provide local oleation, improve tear stability, and nourish ocular tissues.

Rasayana Approach:-

Use of Chakshushya Rasayana to enhance ocular resilience and delay degenerative changes induced by chronic visual strain.

Lifestyle Integration:-

- Adequate sleep
- Periodic visual breaks
- Ergonomic correction
- Eye relaxation techniques such as Trataka

Discussion:-

Computer Vision Syndrome exemplifies a modern lifestyle disorder whose pathogenesis aligns strongly with classical principles of Ayurveda. The concept of Atiyoga of Indriya provides a direct theoretical bridge between ancient doctrine and digital-age pathology. The Vata-dominant nature of the disease explains the predominance of dryness, fatigue, and instability, while Pitta association accounts for inflammatory symptoms. Ayurveda does not restrict management to symptomatic lubrication but emphasizes systemic correction, Dosha pacification, Dhatu nourishment, and preventive discipline. Integrative application of Netra Kriya Kalpa along with digital hygiene strategies may provide superior long-term outcomes compared to symptomatic artificial tear therapy alone.

Conclusion:-

Computer Vision Syndrome represents a functional yet progressively impactful ocular disorder of the digital era. Through the lens of Ayurveda, it can be systematically understood as Chakshurindriya Atiyoga leading to Vata-predominant Netra Vikara with Pitta involvement. A comprehensive management approach incorporating Nidana Parivarjana, Dosha pacification, ocular nourishment, and lifestyle regulation offers a rational and holistic strategy for prevention and management.

1. Acharya JT. Sushruta Samhita with Nibandha Sangraha Commentary of Dalhana 7th ed, Varanasi: Chaukambha Orientalia 2010.p597
2. Acharya JT. Caraka Samhita with Ayurveda deepika commentary of Chakrapanidutta. Reprint ed. Varanasi:Chaukamba Orientalia; 2011p.148
3. Acharya JT. Caraka Samhita with Ayurveda deepika commentary of Chakrapanidutta. Reprint ed. Varanasi:Chaukamba Orientalia; 2011p.598
4. Acharya.Y.T. Susrutha samhita of Susrutha with Nibandhasangraha of Sri Dalhanacharya.9th edition.Varanasi:Choukambha Orientalia;2007.p.605
5. Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta,Varanasi:Chaukambha orientalia; 1998. p. 829.
6. Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentary of Dalhana 7th ed. Varanasi: Chaukamba Orientalia 2010.p597
7. Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasandara commentary of Arunadatta, Varanasi:Chaukambha orientalia; 1998. p. 641
8. Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentry of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010.p852
9. Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi:Chaukambha Orientalia; 1998. p. 641
10. Jyotir.M. Astanga Samgraha with Sasilekha Commentary by Indu edition reprint. Varanasi. Chaukhamba Sanskrit Sansthan; 2009.p.419
11. Harishastri P. Astanga hrudayam of Vagbhata with Sarvangasundara commentary of Arunadatta, Varanasi: Chaukambha Orientalia; 1998. p. 641
12. Acharya JT. Susrutha Samhita with Nibandha Sangraha Commentary of Dalhana 7th ed, Varanasi: Chaukamba Orientalia 2010.p851