

Ayurvedic Management of Computer Vision Syndrome with Mudgaparni Siddha Goghrita Aschyotana: A Case Report

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ABSTRACT

Computer Vision Syndrome is a common ocular condition caused by prolonged exposure to digital screens and sustained near work. The condition presents with symptoms such as ocular dryness, burning sensation, eye strain, watering, redness, and headache, which significantly affect day-to-day activities. The clinical features of Computer Vision Syndrome can be correlated with Sushkakshipaka, a Vata-Pittaja predominant Netra Roga described in Ayurveda.

A young patient presented to the Shalakya Tantra OPD with complaints of dryness of eyes, burning sensation, eye strain, intermittent blurred vision, and headache associated with prolonged digital device usage. No significant systemic abnormalities were observed. The patient was treated with Mudgaparni Siddha Goghrita Aschyotana and advised appropriate ocular hygiene and lifestyle modifications. Significant improvement was observed in ocular discomfort, dryness, burning sensation, and visual fatigue following treatment. The patient reported better visual comfort and reduction in symptoms associated with digital screen exposure.

Thus, Computer Vision Syndrome can be effectively managed with Ayurvedic principles by adopting simple and safe ocular therapeutic procedures such as Aschyotana. Continuous exposure to digital devices reduces blink rate and destabilizes the tear film, leading to ocular surface irritation and visual fatigue. The increasing prevalence of digital device usage among students and working professionals highlights the importance of safe and effective management strategies for Computer Vision Syndrome.

Keywords: Computer Vision Syndrome, Sushkakshipaka, Mudgaparni Siddha Goghrita, Aschyotana, Netra Roga, Digital Eye Strain

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INTRODUCTION

Computer Vision Syndrome (CVS), also termed digital eye strain, is an increasingly pervasive ocular public health issue triggered by the prolonged use of electronic

displays, including computers, tablets, and smartphones ⁽¹⁾. Continuous screen exposure and sustained near-point accommodation impose an excessive visual workload, manifesting in diverse ocular

surface-related and extraocular musculoskeletal symptoms. Clinically, CVS presents as a combination of eye strain, irritation, dryness, blurred vision, photophobia, and headaches, all of which heavily compromise professional productivity and general quality of life^(1,2). This growing societal reliance on digital technology for occupation, education, and recreation has sharply heightened CVS incidence, particularly among corporate workers and young adults. While standard management relies on artificial tears, ergonomic updates, and conscious screen breaks, these interventions frequently fall short, with persistent symptomatic recurrence remaining a significant therapeutic challenge⁽²⁾.

In Ayurveda, the symptomatology of Computer Vision Syndrome can be closely correlated with *Sushkakshipaka*, a Vata-Pittaja predominant Netra Roga characterized by rukshata (dryness), daha (burning sensation), toda (pricking pain), guruta (heaviness), and ocular discomfort. The aggravated Vata and Pitta Doshas affect the ocular structures, leading to depletion of ocular lubrication and functional disturbance of the Netra. Classical Ayurvedic texts advocate various Kriyakalpas for the management of Netra Rogas, among which *Aschyotana* is considered one of the primary and effective therapeutic procedures. *Aschyotana* facilitates direct drug delivery to the ocular surface, provides cleansing and soothing action, and helps in alleviating local Dosha vitiation.

Mudgaparni Siddha Goghrita possesses Vata-Pitta shamaka, Chakshushya, Brimhana, and Rasayana properties, which may help in nourishing ocular tissues, improving tear film stability, reducing ocular irritation, and relieving digital eye

strain. The Goghrita base further enhances ocular lubrication and facilitates better therapeutic action due to its Sukshma and Yogavahi properties. Considering these therapeutic attributes, the present case study was undertaken to evaluate the effect of *Mudgaparni Siddha Goghrita Aschyotana* in the management of Computer Vision Syndrome (*Shushkakshipaka*)⁽³⁾.

PATIENT INFORMATION

A 20-year-old patient presented to the Shalakya Tantra OPD of Bharati Ayurved Hospital with complaints of ocular dryness and eye fatigue associated with prolonged use of digital devices for the past several months. The symptoms were aggravated after continuous screen exposure and prolonged near work. The patient also reported burning sensation occasionally, which interfered with daily activities and visual comfort. There was no history of ocular trauma, systemic illness, previous ocular surgery, or significant visual disturbances. Based on the clinical presentation and Ayurvedic assessment, the condition was diagnosed as Computer Vision Syndrome correlated with *Sushkakshipaka*.

FAMILY HISTORY: Nil

PAST INTERVENTION: Nil

PERSONAL HISTORY:

- **Appetite** - Normal
- **Bowel** – Regular and Satisfactory
- **Micturition** - Normal
- **Sleep** – Mildly disturbed
- **Screen exposure** – Approximately 6-8 hours/day
- **Addiction** - None

CLINICAL FINDINGS:

- **Build** – Lean

- **Nourishment** – Moderately nourished
- **Gait** – Normal
- **Weight** – 52 kg
- **BMI** – 18.2 kg/m²
- **Vitals**
 - Pulse Rate (PR)** – 76 bpm
 - Respiratory Rate (RR)** – 18/min
 - Blood Pressure (BP)** – 110/70 mmHg
 - Temperature** – Afebrile

OCULAR EXAMINATION

(Before Treatment) **DAY 0**

Table 1: On Slit lamp Examination.

Ocular structure	Right Eye	Left eye
Eyelids	Normal	Normal
Eyelashes	Normal	Normal
Conjunctiva	No congestion	No congestion
Cornea	Clear	Clear
Iris	Normal	Normal
Anterior Chamber	Deep and Quiet	Deep and Quiet
Pupil	Normal shape and reacting to light	Normal shape and reacting to light
Lens	Clear	Clear

Table 2: Visual Acuity

VISUAL ACUITY	OD	OS
Distance vision	6/6	6/6(B)
Near vision	N6	N6

Table 3: Intra Ocular Pressure (IOP)

	OD	OS
IOP	12mm of hg	15mm of hg

Table 4: Schirmer's test- 1

	OD	OS
Schirmer's test-1	7mm	7mm

Table 5: Tear film breakup time (TFBUT)

	OD	OS
TFBUT	7 seconds	6 seconds

(After Treatment) **DAY 30**

Table 6: On Slit lamp Examination.

Ocular structure	Right Eye	Left eye
Eyelids	Normal	Normal
Eyelashes	Normal	Normal

Conjunctiva	No congestion	No congestion
Cornea	Clear	Clear
Iris	Normal	Normal
Anterior Chamber	Deep and Quiet	Deep and Quiet
Pupil	Normal shape and reacting to light	Normal shape and reacting to light
Lens	Clear	Clear

Table 7: Visual Acuity

VISUAL ACUITY	OD	OS
Distance vision	6/6	6/6
Near vision	N6	N6

Table 8: Intra Ocular Pressure (IOP)

	OD	OS
IOP	11mm of hg	13mm of hg

Table 9: Schirmer's test- 1

	OD	OS
Schirmer's test-1	16mm	15mm

Table 10: Tear film breakup time (TFBUT)

	OD	OS
TFBUT	13 seconds	11 seconds

RESULTS AND DISCUSSION

After completion of the treatment with *Mudgaparni Siddha Goghrita Aschyotana*, significant improvement was observed in the symptoms associated with Computer Vision Syndrome. The patient reported marked reduction in ocular dryness, eye fatigue, occasional burning sensation, during prolonged digital screen exposure. Improvement in visual comfort and reduction in Asthenopic symptoms were noted within the treatment period, and the patient was satisfied with the outcome.

On ophthalmic evaluation, slit lamp examination findings remained within normal limits both before and after treatment. Visual acuity was maintained at 6/6 for distance vision and N6 for near vision in both eyes throughout the study period. Intraocular pressure was also found to be within normal physiological limits before and after treatment. However, significant improvement was observed in tear film parameters. Schirmer's test-1 values improved from 7 mm in both eyes before treatment to 16 mm in the right eye and 15 mm in the left eye after treatment, indicating enhanced tear secretion and improved ocular lubrication. Tear Film Break-Up Time (TFBUT) also showed considerable improvement from 7 seconds and 6 seconds before treatment to 13 seconds and 11 seconds respectively after treatment, suggesting improved tear film stability and reduction in ocular surface dryness.

Computer Vision Syndrome develops mainly due to prolonged digital screen exposure, reduced blink rate, and excessive

accommodative stress, which lead to tear film instability and ocular surface irritation. In Ayurveda, these manifestations can be correlated with *Sushkakshipaka*, a Vata-Pittaja predominant Netra Roga characterized by rukshata (dryness), daha (burning sensation), and ocular discomfort. The aggravated Vata Dosha produces dryness and fatigue, while vitiated Pitta contributes to burning sensation and irritation.

Aschyotana is one of the important Kriyakalpas mentioned in Ayurvedic classics for the management of Netra Rogas. It facilitates direct contact of the medicine with the ocular surface, providing local therapeutic action and helping in Dosha shamana. *Mudgaparni Siddha Goghrita* possesses Snigdha, Chakshushya, Brimhana, and Rasayana properties which help nourish ocular tissues and improve ocular lubrication. The Goghrita base acts as a soothing and lubricating medium that may help stabilize the tear film and reduce ocular surface irritation. *Mudgaparni*, owing to its Vata-Pitta shamaka properties, may aid in reducing fatigue and inflammation associated with prolonged screen exposure.

The significant improvement observed in Schirmer's test and TFBUT values after treatment indicates enhancement in tear film quality and stability. Thus, the present case study suggests that *Mudgaparni Siddha Goghrita Aschyotana* may be beneficial in the management of Computer Vision Syndrome by reducing ocular discomfort and improving tear film parameters through its lubricating, nourishing, and soothing actions on the ocular surface.

CONCLUSION

Computer Vision Syndrome can be effectively managed with Ayurvedic principles by adopting simple ocular therapeutic procedures along with minimal internal medications. In the present case, significant improvement was observed in symptoms such as ocular dryness, eye fatigue, burning sensation, and watering following treatment with *Mudgaparni Siddha Goghrita Aschyotana*. Objective parameters including Schirmer's test and Tear Film Break-Up Time also showed considerable improvement after therapy, indicating enhanced tear film stability and ocular lubrication. The procedure was found to be safe, simple, and well tolerated by the patient. Thus, it can be inferred that *Mudgaparni Siddha Goghrita Aschyotana* may be beneficial in the management of Computer Vision Syndrome (*Sushkakshipaka*) by alleviating ocular discomfort and improving ocular surface health. However, further clinical studies with larger sample sizes and longer follow-up periods are required to establish its therapeutic efficacy scientifically.

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