

CONCEPT OF COMPUTER VISION SYNDROME IN AYURVEDA: A REVIEW

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Article Received on
21 Sept 2021,

Revised on 11 October 2021,
Accepted on 31 October 2021

DOI: 10.20959/wjpr202113-22205

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ABSTRACT

With the advent of time inevitable changes in food habits, life styles, occupational challenges and environment has lead to the manifestation of new disorders. Computer Vision Syndrome is one among such disorders occurring in computer professionals characterized by complex eye and vision problems related to near work which are experienced during working with computers involving both ocular and non-ocular symptoms. The catastrophic effects of this disorder are low work performance, agony, extreme discomfort that hampers daily routine. Negligence towards it could cost ones career resulting in physiopsychological upset and severe eye problems. The problem is grave according to American Optometric Association with an

incidence in 75% -90% of employees working with Computers and more people are likely to suffer in the future due to rapid growth of jobs in IT sector in India. So it is the need of the hour to find a holistic solution to this problem. In the present context Computer Vision Syndrome was taken and made effort to explain it on the basis of *Ayurveda Siddhanta* like *Hetu-Trividha Hetu*, *Pancha Lakshana Nidana* and the general line of management mentioned in *Ayurveda Samhitas*.

INTRODUCTION

Computer has become a household gadget in the present era, found in all walks of life and the convenience has brought with it the disadvantages as with any invention of human civilization! With progressive increase in the usage of computers, the term Repeated Stress Injury (RSI) has found place in the contemporary medical science. The world in the new millennium is having Computer Vision Syndrome (CVS) as a new complaint. CVS is complex of eye and vision problems related to near work which are experienced during or related to computer use that is defined by the American Optometric Association.^[1] The incidence of Computer Vision Syndrome is as high as 50%-90% among the Computer user and 60 million people suffer from CVS globally.^[2] This problem disturbs the individual and the negligence could cost one's career and upset the health. The available modern treatment only addresses the symptoms of tear film defect due to computer work which is incomplete. So only topical medication is not sufficient for the treating root of the disease. That's why we needs a treatment which give better and satisfactory result. The root causes of systemic pathology can produces local symptoms and vice versa. Hence in this review an attempt is made to understand etiopathogenesis and the treatment protocol for better management of CVS in Ayurveda classics based on various *Ayurveda Siddhanta*.

Even though 76 eye diseases have been explained in the context of *Netra Rogas*, but we don't get exact correlation for CVS anywhere in *Ayurvedic* texts. According to *Acharya Charaka* if a physician is unable to name a particular disease, he should not feel ashamed on that account because it is not possible to name all type of diseases in definite terms.^[3] So, a physician should try to comprehend the nature of disease (*Dosha-Dushya*), the site of its manifestation (*Adhishtahna*), clinical features (*Lingam*) and etiological factors (*Nidana*) and should then initiate the treatment which lead to the permanent cure of the disease. Thus, if the name of the disease is not mentioned in the literature, it does not mean that it cannot be cured. *Acharya Charaka* has mentioned total 13 tools to describe a new emerging disease (*Anukta Vyadhi*) not mentioned in *Ayurvedic* literature which are explained in detail by correlating each factor. Thus an attempt has been made to interpret CVS under the concept of *Anukta Vyadhi*. The etiology i.e. exposure to VDT effects the whole visual approach. According to *Acharya Charaka* to understand a disease one should go through *Nidana Panchaka*.

1) *Nidana*

Nidanas are divided into two categories i.e. *Samanya Nidana* and *Vishesha Nidana*. Among those *Samanya Nidana* (general causative factors) of eye diseases some of them are seen in CVS also. Under *Vishesha Nidana*, the *Asatmendriyarth Samyoga* (improper correlation of sense organs with their objects), *Prajnaparadha* (all the three kinds of unwholesome actions pertaining to body, speech and mind), *Parinama* (effects of time) in reference to *Chakshurendriya* can be considered.

A. *Samanya nidana*

Acharyas has described the *Hetus* of all *Netra Rogas* in general.^[4,5,6,7,8]

Table no. 1: *Hetus* of all *netra rogas*.

Causative factors	S.S.	M.N	B.P	Y.R	V.S.
<i>Ushnabhitaptasya jale praveshaat</i>	+	+	+	+	+
<i>Doorekshanata</i>	+	+	+	+	+
<i>Swapna Viparyayata</i>	+	+	+	+	+
<i>Prasakta Samrodana</i>	+	+	+	+	+
<i>Kopa</i> (Excessive anger)	+	+	+	+	+
<i>Shoka</i> (Grief)	+	+	+	+	+
<i>Shukta-Arnala-Amla-Kulattha-Nishevana</i>	+	-	+	-	-
<i>Shiro Abhighata</i>	+	+	+	+	+
<i>Vega Vinigraha</i>	+	+	+	+	+
<i>Ati-Sweda</i>	+	+	+	+	+
<i>Dhoom Nisevana</i>	+	+	+	+	+
<i>Chardi Vighata</i>	+	+	+	+	+
<i>Bashpagraha</i>	+	+	+	+	+
<i>Sukshma Nireekshana</i>	+	+	+	+	+
<i>Ati Dravanna Pana/ Dravattatha-Anna-Nishi-Sevitata</i>	-	+	-	+	+
<i>Atimadyapanat</i>	-	+	-	+	+
<i>Ritunamcha Viparyaya</i>	-	+	-	+	+
<i>Ati-Sheeghra-Yanaat</i>	-	-	+	-	-
<i>Abhishyanda</i>	+	-	-	-	-
<i>Bhasvara Darshanam</i>	-	+	-	-	-

B. *Vishesha nidana*

1. *Asatmendriyarth samyoga*

1. *Atiyoga* (Excessive) - Excessive utilisation of sense organs with their objects.

- Exposure to very bright light(*Bhasvara- Darsanatha*)
- Long working hours
- Light from a very short distance

➤ Concentration more on the near work without shifting the gaze

2. **Mithyayoga (Perversion)** - Wrong utilisation of sense organs.

- Viewing very small fonts against very bright screen (*Sookshma Nireekshana*)
- Abnormal working hours
- Constantly staring at monitor
- Working on computer without blinking
- Improper posture
- More brightness of computer screen
- More or less height of computer screen

2. **Prajnaparadha**

- Suppression of physiological and psychological urges like flatus, defecation, urine etc. will directly cause *Vata* vitiation.
- Excessive physical exertion.
- Psychological factors like worrying, anxiety, stress, strain, emotions etc.
- Excessive consumption of alcoholic beverages, *Vidahi* (baked items which will not digest easily, over cooked and fried items).

3. **Parinama (Effects of time)**

- Excessive or long time sitting in front of computer screen in old age specially.
- Excessive computer work by presbyopic person without using glass.

CVS being a new disease dually contributed by electronic technology, so it's the logical understanding on *Ayurvedic* fundamental using the different tools given by *Acharya Charaka* verify the fact that *Asatmendriyarthasamyoga* (improper correlation of sense organs with their objects), and *Prajnaparadha* (intellectual offence) are provoking *Vata* and *Pitta* systemically as well as leading to depletion of *Kapha*. According to *Ayurvedic* point of view, CVS is a group of *Vata-Pitta* dominant ocular and systemic disorder which is in contemporary to the modern concept of CVS who takes CVS as ocular problem only. That's why giving rise to the complex of this problem. Hence cannot be considered only ocular problem.

2) **Samprapti**

After discussing *Nidana* it is very essential to consider *Samprapti* of the disease proper. *Samprapti* explains disease process starting from *Dosha Dushti*, their spread and

manifestation of the disease. Thus complete knowledge of *Samprapti* is very essential in planning the successful treatment. *Acharya Sushruta* had given a general *Samprapti* of all *Netra Roga*. The *Doshas* are vitiated due to *Achakshushya Nidana* and enter the *Urdhwagata Siras*, lodge in the various parts of the eye and manifest as *Netrarogas*.^[9] Commenting on the above *Dalhana* says "the *Siras* referred here are the *Netragata Siras*, the term *Netrabhaga* means the different structures of the eye, and according to some it means *Netra Raji* i.e., the capillaries supplying the eye."^[10]

Samprapti ghataka

<i>Dosha</i>	- <i>Vata-Pitta</i>
<i>Dushya</i>	- <i>Rasa, Rakta and Mamsa</i> .
<i>Agni</i>	- <i>Jatharagni</i>
<i>Srotas</i>	- <i>Roopavaha</i>
<i>Srotodushti Prakara</i>	- <i>Vimargagamana and Sanga</i>
<i>Adhishthana</i>	- <i>Netra</i> .
<i>Sadhyasadhyata</i>	- <i>Sadhya</i>

3) *Purvaroopas*

Poorvaroopas are the prodromal sign and symptoms which occur prior to disease felt by patient and prodromal signs seen by doctor. *Acharyas* has described *Poorvroopas* of all *Netra Roga* in general, out of these few *Poorvroopas* are also present in prodromal symptoms of CVS like:^[11]

- *Sasarambh* - Congestion or redness of the eyes
- *Kandu* - Itching as a symptom because of eye strain.
- *Usha* - Burning sensation.
- *Toda* - Pain in eyes
- *Sashulam Vartam Koshaishu* - Periocular pain perceived by a CVS patient.
- *Sukapurnabham* - Foreign body sensation

4) *Roopa*

Typical signs and symptoms by which a disease is recognized are known as *Roopa*. Since CVS has not been mentioned anywhere in *Ayurvedic* texts as such but here symptomatology of CVS will be discussed on modern grounds with *Ayurvedic* references. The signs and symptoms of CVS can vary but mostly include- eye irritation (dry eyes/itchy eyes/ irritated

eyes), red eyes, blurred vision (for distance or near), headache, light sensitivity, double vision, backache, neck ache, muscle fatigue, eye straining and difficulty in refocusing the eyes.

- **Netra shoola (Eye strain)**

In *Ayurveda*, different symptoms can be correlated with eye strain like *Kunchan*, *Netravayatha* etc. Moreover *Acharya Sushruta* considered second *Patala* of *Netra* as *Mansa Ashrita Patala* which has *akunchana* and *Prasarana* properties. So, we can say that overuse of this *Mansa Ashrita Patala* may cause *Aayasa* or fatigue in eyes. All the activities, which produce fatigue (*Aayasa*) in the body, are known as *Vyayama*. If any individual crosses this limit (excessive *Vyayama*), it causes *Shrama* i.e. *Apakarshana* which ultimately leads to *Kapha* depletion and *Vata-Pitta* aggravation.^[12]

- **Timira (Blurred vision)**

The symptom blurring of vision is described in *Ayurvedic* texts as symptom of *Pratham Patalagata Timira* and other *Drishtigata Roga* like *Dhoomdarshi*. *Acharya Charaka* has considered *Timira* as *Vata Nanatamaja Vikara*, so prolong working on computer leads to *Vata* vitiation and give rise to blurring of vision.^[13]

- **Akshi sushkata (Dry eye)**

Visushakabhava, *Visushaktava* and *Sushakalpa* are *Vata-Pitta* dominating features.

- **Sirahshoola (Headache)**

Usually headache is due to stress. In *Ayurveda*, its pathophysiology can be assumed as continuous work on computer monitor leads to ocular fatigue which further leads to aggravation of *Vata* and *Pitta* (*Vata* and *Pitta* are usually vitiated after excessive *Vyayama*) which leads to *Shirotapa* and *Shiroruja* (headache).

- **Aayasa (Excessive fatigue-Neck/shoulder/Back pain)**

This symptoms in a patient of CVS is due to constant sitting in fixed posture, overuse of muscles of neck/shoulder and fingers. In *Ayurveda*, excessive use of muscle or *Ativyayama* leads to such symptoms. *Ativyayama* also vitiates *Vata* and *Pitta* which is the cause of neck/shoulder/back and finger pain.

5) *Upshyaya* (Therapeutic test)

Medicines, food items and activities which gives feelings of well beings to the patient are known as *Upshyaya* and that which cause aggravation of the symptoms is called *Anupashaya*.^[14] In CVS patient *Upshyaya* may include eye rest, sound sleep, fresh air, vitamin C, vitamin A rich food like *Triphala*, *Ghee*, papaya, aloe vera, *Tarpana Karma*, ocular and head massage (*Samvahana*) and soothing *Netra Bindu* (*Ashchyotana*). All those factors mentioned as *Apathyas* and *Nidana* can be considered as *Anupashaya*.

6) *Vyavacchedaka nidana*

Before confirming the diagnosis of CVS, it has to be differentiated from other diseases which mimic *Netra Roga* with some specific symptoms. For this one should take proper examinations as well as investigations in order to differentiate it from other diseases which have similar specific symptoms mentioned in *Ayurveda Samhita*. *Vatabhishyanda*, *Sushkaakshipaka*, *Ashopha*, *Sashopha* and *Sirotpata* disorders can be considered for *Vyavacchedaka Nidana*. The *Lakshanas* of CVS resemble the *Lakshana* of the diseases mentioned in *Ayurveda*, as above but a detailed examination and interrogation is necessary to rule out the above said diseases. CVS is not a very severe disease, compared to the diseases which are taken for *Vyavacchedaka Nidana* as well as CVS is also always associated with patients working with computers. These diseases may occur along with CVS and make the condition severe and worse but CVS cannot be compared as such with any of these.

Sadhya-Asadhyata

Before going to start the *Chikitsa* of a particular disease one should know about the *Sadhyasadhyata* of a disease, i.e. According to *Prabhava*, the diseases are classified as *Sadhya* and *Asadhyata*. *Sadhya* is subdivided as *Sukha Sadhya* and *Krichra Sadhya*, *Asadhyata* is subdivided as *Yapya* and *Pratyakheya*.^[15] CVS is an easily curable condition i.e., *Sukhasadhyata* if *Chikitsa* is started early and if *Nidana Parivarjana* and *Pathya* are followed properly. But if *Nidana Parivarjana* and *Pathya* are not followed by computer users then CVS becomes a *Kriccha Sadhya* or *Yapya Vyadhi*.

Upadrava

In *Ayurveda*, *Acharyas* have mentioned that if *Netra Roga* are left untreated they become chronic and lead to complications like *Timira*.

Chikitsa

Chikitsa is that procedure/entity which brings the bodily components to a state of normalcy. In general, *Chikitsa* for any *Roga* is told as *Samshodhanam*, *Samshamanam* and *Nidaan Varjanam*.^[16] The management principles of *Netra Roga* in general consist of avoidance of etiological factors as the first line of management. The second principle is to counter act increased *Vata-Pitta Doshas* in the *Poorvaroop* stage itself, because if neglected these diseases progress rapidly and become incurable in later stages.

DISCUSSION

The guidelines for identification as well as treatment of the diseases which are not mentioned in the texts has been clearly given in *Charaka Samhita* based on *Aptopadesha Pramana*. Total 13 tools are mentioned to describe a new disease (*Anukta Vyadhi*).^[17] They are-

1. ***Evam prakopanam (Causes) - Prakopanam*** implies to *Hetu*. Here in case of CVS Constantly staring at monitor with wide open eyes causes three basic alterations in the eye i.e.

- **Widely open eyes** – Will evaporates the moisture which is present in the anterior surface.
- **Concentrating on the screen without blinking-** Will reduce the blinking rate which in turn decreases the tear secretions from lacrimal gland.
- **Viewing small fonts for a longer period-** Will causes tiredness in the extra ocular muscles.

The earlier mentioned general causative factors are also to be considered as causes of aggravation of *Doshas*.

2. ***Evam yonim (Dosha involved)- Yoni*** denotes *Moolbhoota Karana*. *Yoni* of CVS is *Vata* dominating *Pitta*. It is a *Doshabalapravitta Vyadhi*.
3. ***Evam utthanam-*** Process of understanding the involvement of *Doshas* in the occurrence of disease is known as *Utthana*. Indulgence in the causative factors leads to vitiation of the *Doshas*. *Vata- Pitta Dosha Prakopa* occur takes *Sthanasamshraya* at the *Khavaigunya* of the eye mainly the *Vata* predominant areas like *Krishna Mandala* etc. this leads to manifestation of symptoms of CVS.
4. ***Evam atmanm (Cardinal symptom of the disease) -*** It is the *Pratyatmalinga* of the disease. Eye strain can be considered as the cardinal symptom of CVS as it gets manifested in the early stage of the disease as well as in the most commonly observed presenting symptom which lasts up to complete remission of the disease.

5. **Evam adhisthanam-** Acharya Charaka, stated that when the *Malas* (vitiating *Doshas*) are lodged in the *Indriyas*, *Upatapa* (pathology) is produced, thereby leading to *Upaghata* (functional impairment) in *Chakshurendriya*. The vitiated *Vata* and *Pitta Dosha* will take *Sthanasamshraya* at *Netra Patala* (*Pratama* and *Dvitiya*), *Shweta* and *Krishana Mandalas*, and thus leads to further progression of the symptoms of CVS. The conjunctiva, cornea, iris, lens and retina will be affected in this disease. Among *Dushya Rasa*, *Rakta* and *Mamsa* are involved once the *Prakopana* of *Vata* and *Pitta Dosha* occurs.
6. **Evam vedanam** - The word ‘*Vedanam*’ denotes knowledge. Here the word can be understood in the sense of clinical features and various diagnostic tests done in CVS. The diagnostic methods in *Ayurveda* are by means of *Shabda*, *Sparsha*, *Roopa*. *Rasa*, *Gandha* i.e. *Prathyaksha Pariksha* and *Anumana Pariksha*. In CVS diagnostic tools used were clinical observations, schirmer-I test and tear film breakup time (TBUT).
7. **Evam samsthanam** - *Samsthana* refers to the clinical manifestation of the disease. The signs of CVS are dry eye and change in colour perception.
8. **Evam upadravam (Complications)** - *Upadrava* is the disease produced after the manifestations of main disease and it is dependent on the main disease. *Upadravas* of CVS are *Timira* (pseudo myopia, refractive errors, and early presbyopia), *Shushkakshipaka* (dry eye) and *Avasada* (depression).
9. **Evam Vriddhi, Sthana, Kshaya-** This implies for the aggravating and relieving factors i.e. the *Upshayas* and *Anupshayas* for the disease. Intermittent rest, good diet, proper posture and proper video display quality are *Upshaya* and prolong sitting in bad posture is *Anupshaya* in CVS.
10. **Evam udarkam (Vyadhi uttarakaleena avastha)** - After complete treatment, the remaining conditions of the disease which is not relieved by the specific treatment is considered as *Udarka*, it either leads to secondary diseases or complications. Because of long standing exposure to the UV- rays and electromagnetic field while working on the computer can cause damage to the brain tissue, hormonal imbalance or can provoke severity towards dust etc. All these can be considered as the secondary diseases to CVS.
11. **Evam naman** - As it is mentioned ‘Computer Vision Syndrome’ can be considered as *Anukta Vyadhi*. With this reference we can consider that, with the change of era computers came into human life which is a new *Karana*, its improper use leads to a new disease condition i.e. CVS. Acharya Charaka has mentioned that when a disease is caused by wrong-utilization, excessive utilization or inadequate-utilization (non-

utilization) of sense faculties, viz. visual etc., it is known as '*Aindriyaka*', based on this CVS can be named as "*Chakshurendriyaka Roga*". Any of the following names can be described to the new ailment i.e. "Computer *Atiprayojanita Netra Roga*" / *Sanganak Atiprayojanita Netra Roga*.

12. *Evam yogam*- Treatment strategy planed by considering above all points. It includes specific treatment as a part of this process; management of the patients therefore is not merely by drug therapy or surgery, but rather management of whole problems confronted by the patients. Treatment concept of CVS in *Ayurvedic* aspects can be taken from various references as most of the symptoms of CVS are *Vata* and *Pitta* dominant and *Kapha* depleting disease, so the main line of treatment should be *Vata-Pittahara* and *Kapha Vridhikara*. So, by above references we can say that main line of treatment in a patient of CVS should be *Santarpana*, *Snigdha Aushadhi*, *Parisheka*, *Nasya*, *Akshitarpana*. In addition, symptomatic treatment should also be done by using *Yukti* (intelligence of physician).

13. *Pratikarartha Pravritti & Pratikarartha Nivrutti* - *Pravritti* (initiation of action) to revert the pathology & *Nivritti* (refrain from taking any action). *Pratikarartha Pravritti* is identifying the stage of the disease when treatment is to be initiated. In case of CVS it can be taken as the stage when cardinal symptoms like eye strain manifest. *Pratikarartha Nivritti* is that stage of the disease when treatment is to stopped normally subjective and objective parameters affects to this stage. To summarize the newly emerged disease i.e. Computer Vision Syndrome, it occur due to persistent use of visual apparatus in a stereo type posture and over indulgence i.e. physical abuse. Resultant outcome is the aggravation of *Vata* and *Pitta Doshas*. The aggravated *Doshas* course through the vessels and reaches *Netra* and produces formidable disease in different parts of the eye. The above factors are conspicuous in Computer Vision Syndrome. Table No.2- CVS symptoms and their *Dosha* involvement.

S. No.	Symptoms	Ayurvedic terms	Dosha vitiation
1	Dry and irritated eyes	<i>Visushka Netra / Ruksha Netra</i>	<i>Vata</i>
2	Eye Strain	<i>Netra Klama</i>	<i>Vata</i>
3	Blurred vision	<i>Avila Darshanam</i>	<i>Pitta</i>
4	Red Eyes	<i>Netra Raga</i>	<i>Pitta</i>
5	Burning Eyes	<i>Netra Daha</i>	<i>Pitta</i>
6	Excessive lacrimation	<i>Ashru Bahulata</i>	<i>Vata</i>
7	Double vision	<i>Dwidha Pashyati</i>	<i>Vata</i>

		(Mithya Darshana)	
8	Difficulty in focusing	Roopa Darshana Asahyata (Heena Tarpita Lakshana)	Vata
9	Change in colour perception	Vikrita Varna Patavam	Vata / Pitta
10	Photophobia	Prakasha Asahyatva	Vata / Pitta
11	Headache	Sirashoola	Vata/Pitta
12	Pain in shoulder, neck and back.	Griva, Bahu , Kati Shoola	Vata
13	Contact lens discomfort	-----	-
14	Slowness in changing focus	Alpa Kriya Laghava of Netra	Vata

In general, *Chikitsa* for any *Roga* is told as *Samshodhanam Samshamanam* and *Nidana Varjanam*. The management principles of *Netra Roga* in general consist of avoidance of etiological factors as the first line of management. The second principle is to counter act increased *Vata* and other *Doshas* in the *Purvaroop* stage itself, because if neglected these diseases progress rapidly and become incurable in later stages.

a) *Nidana parivarjana* (Prophylactic measures):- It is the first line of treatment of any disease and it is most important line of treatment for *Netra Roga* also. It indicates that the root cause of *Samprapti* process that is *Nidana* and it must be avoided for best management of the disease. In *Netra Roga* the factors which are mentioned as *Nidana* of the disease should be avoided. *Nidana Parivarjanam* includes avoiding by all means the etiological factors leading to aggravation of *Dosha*, *Vyadhi* and *Apathya*.

b) *Doshika chikitsa* (Curative measures):- *Chikita* includes treating the aggravated *Doshas* involved in causing CVS by *Shamana* and *Shodhana*.

I. *Shamana aushadha*:- In *Nayanabhighata Pratishedha Adhyaya Acharya Dalhana* says that *Pittaja Abhishyanda*, *Raktaja Abhishyanda* and *Vataja Abhishyanda Chikitsa* is to be followed in *Abhighataja Netra Rogas* with drugs having *Drishti Prasadana* properties. *Triphala* is said to be drug of choice in case of *Netra Roga* with various *Anupana*. Based on the involved *Dosha*. This drug is having *Chakshushya*, *Rasayana* along with *Deepana*, *Pachana* properties. A number of herbal and animal drugs like *Madhu*, *Ghrta*, *Yashtimadhu* etc. are mentioned as *Chakshushya* in the *Samhitas* and *Nighantus* where as many mineral drugs are described in the text books of *Rasashastra*, which can be used in treating various *Netra Roga*.

- II. *Kriyakalpa***:- *Sushruta* has recommended '*Kriyakalpa*' for the management of *Netra Roga*, along with other types of treatment. They can be advocated in almost all eye diseases and it comprises of *Tarpana*, *Putapaka*, *Anjana*, *Aschyotana* and *Seka*. Later scholars like *Bhavaprakasha* have advocated the use of *Swarasa* and *Arka* for local use in *Netra Roga*.
- III. *Panchakarma***:- *Panchakarma* is indicated for *Sarvadehagata Dosha Shodhana*. *Nasya*, *Virechana* and *Basti* procedures can be used for *Netra Roga*.

The *Samanya Chikitsa* of *Netra Roga* are mentioned above but to plan of *Chikitsa Siddhanta* for CVS which is not mentioned in *Samhita* the following points are to be considered.

- CVS is a *Netra Roga* caused due to *Nija* and *Aganthu Karana Janya Dosha Prakopa*.
- *Nidana Parivarjana* is the first line of treatment.
- *Vata-Pitta Shamana* is the second line of treatment for the *Prakupita Dosha* causing specific *Lakshana* in this particular *Vyadhi*.
- *Netra Prasadana*, *Drishhti* drugs should be used along with procedures like *Aschyotana*, *Tarpana*, *Putapaka* etc.

***Pathya-Apathya*^[18]**

Pathyasevana plays a major role both in prevention and cure of *Netra Roga*. According to *Sushruta*, the person who is having the habit of regularly taking old *Ghrita* prepared from *Shatavari* or *Amalaki*, *Yava* cooked with sufficient quantity of *Ghrita* and the decoction of *Triphala* etc. by taking these and has no reason to fear from even the severest form of *Netra Roga*. The cooked vegetables of *Jivanti*, *Sunishannaka*, *Tanduliya*, good quantity of *Vastuka*, *Moolakapotika* and *Jangala Mamsa* are beneficial for eyesight. *Patola*, *Karkotaka*, *Karavellaka*, *Vartaka*, *Tarkari*, *Karira* fruits, *Shigru* and *Aartagala* etc. all these vegetables cooked with *Ghrita* also promote eyesight. *Acharya Vangasena* supports the same views. *Acharya* has mentioned that use of certain procedures like *Lepa*, *Abhyanjana*, *Sechana*, *Dhavana*, etc. in the sole of foot are beneficial for the improvement of eyesight. *Ashtanga Hridya* advocates *Raktamoksha*, *Virecana*, purity of mind, relaxation, *Anjana*, *Nasya*, meat of birds, oil. *Padabhyanga* and *Padarakshadharana*, *Shitodaka*, *Parisheka*, *Shitodaka Snana*, *Shitodaka Gandusha Dharana*, *Dakshina Maruta*, keeping palmar region of the hands to the eyes are stated for the rejuvenation of the eye sight. The *Chakshushya* regimen mentioned in the classics is be useful in controlling the progress of the disease. A combination of the above

said drugs, in the form of oral supplement, and *Kriyakalpas* will play a definite role in the management of *Netra Roga*.

CONCLUSION

It can be concluded from the above review that computer vision syndrome is *Anukta Vyadhi*. CVS has *Vata-Pitta Dosha* dominance and it can be cured by general treatment of principle of *Vata* and *Pitta Dosha*. *Shodhana* and *Shamana Chikitsa* along with local therapeutic measures must be given to prevent recurrence and complete removal of the disease. Thus, the treatment modalities of Ayurveda described in this review can prove very beneficial in the management of CVS.

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