



MANAGEMENT OF CENTRAL SEROUS CHORIORETINOPATHY BY  
JALAUKAVCHARANA- A CASE STUDY

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**ABSTRACT:**

Central serous chorioretinopathy is an idiopathic disorder characterized by local serous detachment of sensory retina at the macula secondary to leakage from the chorio-capillaries, one of most hyperpermeable RPE sites. Though the disease is self-limiting but due to recurrence and severity it may lead to permanent vision loss. In *Ayurveda* pathogenesis, sign and symptoms of CSCR have similarities with *Dhoomdarshi* and 3<sup>rd</sup> *patalgata roga* which described under *Drishtigata Roga* in all classic of *Ayurveda*. *Rakta-mokshana* (Leech Therapy) by *Jalauka* (Leech) application is done and after the treatment the quality of vision has shown significant improvement. Foveal thickness and macular volume in OCT findings also showed almost 50% reduction just in span of 10 days.

**Keywords:** Central serous chorioretinopathy (CSCR), *Dhoomdarshi*, *Drishtigata Roga*. *Jalaukavcharana*, *Trutiya Patalgata Roga*.

## INTRODUCTION:

Central serous chorioretinopathy (CSCR) is characterized by spontaneous detachment of the neurosensory retina in the macular region with or without retinal pigment epithelium detachment. CSR typically affects one eye of the young or middle-aged white man. Males are more prone than females, and Type A personality individuals are more prone. It presents in two forms, acute (self-resolving within 3-6 months) and chronic. The risk factors include the use of steroids in any form (Including endogenous Cushing's syndrome) is significantly linked to this Condition. Numerous other risk factors & associations have been reported (including Helicobacter pylori infection, renal dialysis, systemic hypertension, psychological stress, pregnancy and sleep apnoea syndrome etc) <sup>[1]</sup>. Symptoms of CSR include sudden painless diminished vision associated with relative positive scotoma, micropsia, metamorphopsia and mild dyschromatopsia <sup>[2]</sup>. Spontaneous resolution within 3-6 months with a return to near normal or normal vision occurs. Recurrence is seen in 50% and prolonged detachment is associated with gradual photoreceptor and RPE degeneration resulting in permanently reduced vision. Multiple recurrent attacks may give similar effects <sup>[1]</sup>. It can be correlated with *Dhoomdarshi* and 3<sup>rd</sup> *Patalgata Roga* in eye

diseases described under 12 *Drishtigata Rogas* described by *Sushruta*<sup>[3]</sup>.

## CASE REPORT:

A male patient, 55 years old, visited to Ophthalmology OPD of *Shalakyatantra* Department, GAC and Hospital Nanded on 29/11/2022 with chief complaint of diminished vision of left eye with central and paracentral scotoma. Patient was suffering from all these symptoms from 3 days. He consulted other Ophthalmologist, went for OCT (Optical Coherence Tomography) of both eyes. He was diagnosed as Central Serous Chorio-Retinopathy (CSCR) in left eye then he came to GAC And Hospital Nanded for *Ayurvedic* Treatment.

## Personal History:

Diet - vegetarian

Appetite - Normal

Bowel - Regular

Habits - No Any Addiction

H/o Emotional stress.

## ***Ashtavidha Parikshana:***

*Nadi* – 76/min

*Mala* – *Prakrut*

*Mutra* – *Prakrut*

*Jivha* – *Niram*

*Shabda* – *Spashta*

*Druka* – *Aspashta*

*Aakruti* – *Madhyam*

## Visual Examination:

**Table no.1: Showing Visual Acuity Before Treatment**

Sr.no		Right Eye	Left Eye
1.	DVA Unaided	6/12 P	C/F 1 ft
2.	Pin hole	6/9	Not Improved
3.	Near vision	N/6	N/18

**Ocular Examination:**

Eyelid, conjunctiva, sclera, cornea, anterior chamber and lens were normal. Intraocular pressure by Schiotz tonometer was 17.3mmhg. Direct ophthalmology revealed central serous chorioretinopathy (CSCR) in left eye.

**Fundus Examination:**

Revealed Macular Oedema.

Optic Disc: NAD

CD Ratio: Normal

Foveal Reflex- Absent

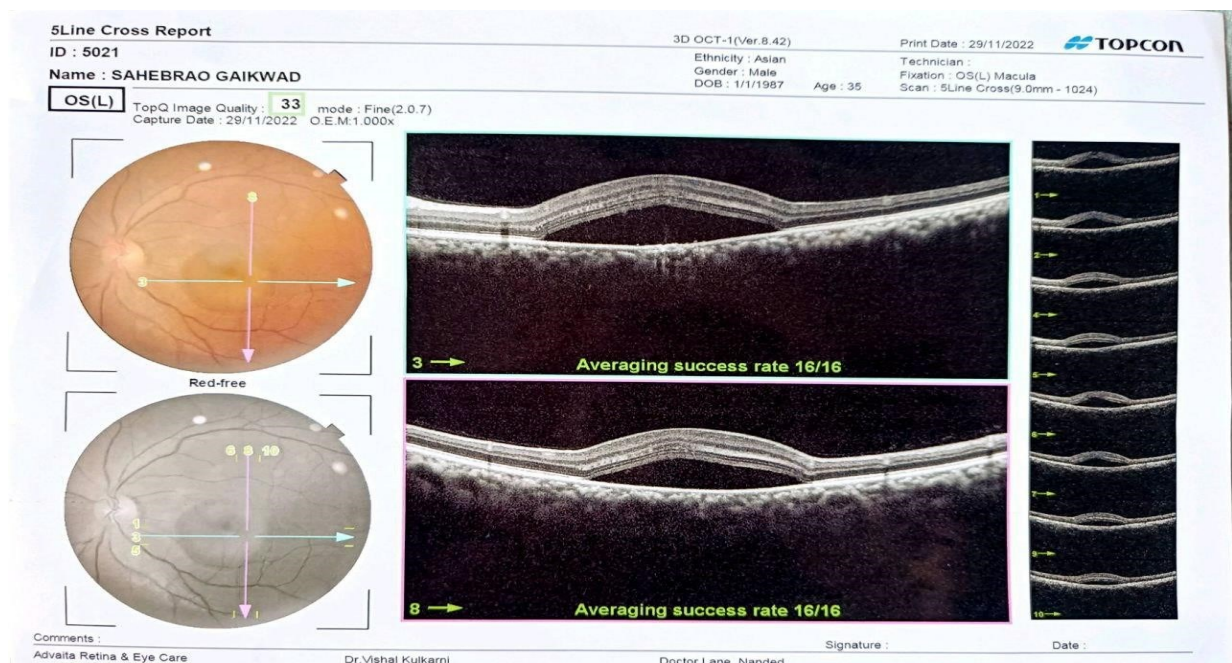
Retinal Vessels: NAD

Macula: Macular Oedema

**OCT Findings:**

Revealed subretinal fluid collection between RPE and Neurosensory Retina.

OCT: Pre- Treatment



**Fig.no.1: Pre-Treatment OCT of CSCR**

Subretinal fluid collection between RPE and Neurosensory Retina (CSCR).

Amsler Grid Findings:

Lines and central dot not visible.

Central and Paracentral Scotoma present.

**Procedure:**

Jalaukavcharan (Leech application)

**Poorvakarma:**

Local *Pragharshna* (rubbing) done with *Triphala* powder.

**Pradhankarma:**

*Jalauka* is applied at *Upnasika* (just lateral to nasal bridge), Near *Apanga* Sandhi (Near lateral canthus) and at *Lalat* (Just above mid of eyebrow)

**Paschatkarma:**

Vaman of *Jalauka* done.

Turmeric and *Lodhra Churna* were applied over the site of leech bite and the bandage done.

**Internal Medicine:**

1. *Triphala Churna* 1 tablespoon HS with lukewarm water.
2. Nepatop eye drop 2 drops TDS for instillation in affected eye.

**Follow up Findings:** After *Jalaukavcharana*: (After 6 hrs)

**Visual Examination:**

**Table no.2: Showing Visual Acuity After 6 hrs Of Treatment**

Sr.no		Right Eye	Left Eye
1.	DVA Unaided	6/9 P	6/9 P
2.	Near vision	N/6	N/6

Amsler Grid Findings: Partial Visibility of all lines and central dot. Central and

Paracentral Scotoma mild decreased. Next Day Follow up:

**Visual Examination:**

**Table no.3: Showing Visual Acuity on Next Day of Follow Up**

Sr.no		Right Eye	Left Eye
1.	DVA Unaided	6/9	6/9
2.	Near vision	N/6	N/6

Amsler Grid Findings: Visible all lines and central dot. Central and Paracentral Scotoma absent.

Follow up After 10 Days:

**Visual Examination:**

**Table no.4: Showing Visual Acuity After 10 Days**

Sr.no		Right Eye	Left Eye
1.	DVA Unaided	6/9	6/9
2.	Near vision	N/6	N/6

Amsler Grid Findings: Visible all lines and central dot. Central and Paracentral Scotoma absent.

OCT Findings:( After 10 days)

OCT: Post- Treatment Resolving CSCR.



Fig.no.2: Post-Treatment OCT of CSCR

## DISCUSSION:

Central serous chorioretinopathy can be correlated with *Dhoomdarshi* and 3<sup>rd</sup> *Patalgata Roga* caused mainly due to vitiation of *Pitta* and *Kapha Dosha*. The line of treatment in CSCR cases should be *Pitta- Kapha Shamaka*, *Strotas Shodhana* and *Rasayan Chikitsa*.

*Jalaukavacharan*: (Leech Application)

According to contemporary science, no known effective medical treatment is available for the immediate effect for the treatment of Central serous chorioretinopathy. CSCR is an idiopathic disorder, various treatment modalities like Laser treatment, photodynamic therapy (PDT), intravitreal injections of Anti VEGF agents and subthreshold lasers advocated but these treatments are not having satisfactory result,

costly and having many contraindications/risks<sup>[4]</sup>. In *Ayurveda* CSCR can be considered caused due to *Pitta- Kapha Dosha Dushti*. *Pitta* and *Rakta* have *Ashraya Ashrayi Bhava* so *Jalaukavacharan* treatment given for *Rakta-Pitta Shodhan* and *Shaman*. *Jalaukavacharan* gives antiinflammatory effects, improves microvascular blood supply and almost gives effects of anti-VEGF and steroid without their side effect. *Jalauka* (Leech) application shows local anti-inflammatory, *PittaRakta Shodhana*, *Shothaghna* and *shamana* properties which reduced macular oedema causes improvement in vision. No adverse events were noticed during the course of treatment and follows up period too.

*Triphala Churna*:

*Triphala Churna* given at night is recommended in management of *Drishtigata Rogas*. It is *Tridosha-Shamaka*, *Anulomana* and *Rasayana*. It has Anti VEGF activity<sup>[5]</sup> and *Vatanulomaka* and *Chakshushya* properties. *Triphala* is one of the potent immunomodulator, helps in free radical scavenging, anti-Inflammatory, anti-pyretic and wound healing. *Triphala* helps in reducing stress. It is rich source of vitamin C and flavonoids. It reduces glutathione level in eyes. It increases Activities of Antioxidant like superoxide dismutase, catalase glutathione transferase and glutathione peroxidase. It has good anti-inflammatory markers. It reduces expression of inflammatory mediators IL-17, COX 2, RANKL through inhibition of NFKB activation<sup>[6]</sup>.

#### CONCLUSION:

Now a days people believe in *Ayurvedic* treatment. CSCR can be correlated with *Dhoomdarshi* and 3<sup>rd</sup> *Patalgata Rogas* in *Ayurveda*. It is characterized by sudden painless diminished vision associated with relative positive scotoma, micropsia and metamorphopsia<sup>3</sup>. *Ayurveda* recommend that *Jalaukavcharan* is highly effective in *Pitta-Rakta Shaman*. The main challenge faced was maintaining Vision while resolving the ocular pathology and returning of homeostasis. Repeated consultation brought about positive results in the patient. At the end of consultations, the vision was almost Normal, oedema in the retina was in resolving stage. On comparing before treatment and after

treatment OCT, it is found that fluid collection in macular area is reduced considerably and foveal depression became almost normal which was bulged before treatment. Patient did not get any side effect during treatment. Further study will be continued on number of patients.

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