

AYURVEDIC MANAGEMENT OF CENTRAL SEROUS RETINOPATHY - A CASE STUDY

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ABSTRACT

Central serous retinopathy (CSR) is also known as central serous chorio retinopathy(CSCR), is a visual impairment condition characterised by fluid accumulation resulting in a localized macular detachment and blurred vision or distorted central vision. The underlying pathogenesis revolves around functional or structural defect in the fluid-pumping capabilities of the retinal pigment epithelium (RPE) and choroidal vascular stasis or hyperpermeability. Complete resolution occurs in most of the patients in three to six months but most of the patients unwilling to wait or in those with immediate occupational demand. Observation and laser photocoagulation are the only treatment in contemporary science. This condition shows the feature *Vimarga gamana* and vitiation of *Vata pradhana Pitta-Kapha dosa* so treatment is planned according to *Samprapti* of the disease, A 46 year old male patient with central serous retinopathy showed marked improvement in ayurvedic management is presented in this article.

Keywords: Central serous retinopathy, Hyperpermeability, *Vimarga gamana*, *Vata pradhana Pitta-Kapha dosa*.

INTRODUCTION: Central serous retinopathy is an Idiopathic disorder characterized by a localized serous detachment of the sensory retina at the macula secondary to leakage from the choriocapillaries through one or more hyper permeable RPE sites. CSR typically affects one eye of a young or middle (20-50 years) aged, males more than females¹. The Incidence of CSR is said to be 10 in 100,000. There does not appear to be any clear predisposing factors², Imperfectly defined risk factors include Steroid administration, Helicobacteria pylori infection, Pregnancy, Psychological stress and Sleep apnoea syndrome. Clinical features are unilateral blurring, metamorphopsia, micropsia and mild dyschromatopsia signs are round or oval detachment of the sensory retina at the

macula, subretinal fluid may be clear or turbid.

Management is observation, Laser to the RPE site of the retina, Photodynamic therapy(PDT), Intravitreal anti-VEGF agents^[1] but in observation, duration is long(3-6 months) patient may unwilling and remaining methods are expensive and has their own complications such as Geographic atrophy of the pigment epithelium and choriocapillaris, fibrovascular scar etc³.

Ayurveda is mainly based on *Tridosha siddhantha*⁴ any disease can be treated on the basis of this, the Etiopathogenesis involves due to *Nidana* [causative factor] *Chinta*[excessive thinking, stress etc] diabetes, vitiation of *vata*, *pitta* and *kapha* leading to *rasa* and *raktavaha srotodusti*, *prasara* to the eye and *stana samsraya* in

dristi results in *shopha* in *drishti* (macula). In this case study patient shows good improvement by ayurvedic management.

MATERIALS AND METHODS:

CASE REPORT:

- **Chief complaint:** C/o Blurred vision in Right eye since one month.
- **History of present illness:** A 46 year old male patient with history of diabetes since 4 years came to outpatient department for sudden onset of diminished vision of right eye since one month (CF at 5mts) associated with metamorphasia, OCT of right eye showed macular oedema, retinal thickening .
- **Past history:** Diabetic since 4 years under medication T. Metformin, No H/O Hypertension , he didn't took laser

treatment for another opinion he approached for Ayurvedic treatment.

• **Laboratory investigation:**

FBS:180 mg/dl Date: 15/9/2016
PPBS: 220mg/dl

Family history: Nothing specific

Personal history: Appetite: Reduced
Bowel: Twice daily
Sleep: Disturbed
Micturation: 5-6 times daily

General examination:

CNS: consciousness, memory, higher motor mental function intact

CVS: NAD

Examination of the eye:

Anterior segment: Normal

IOP: Normal

Fundus examination: Elevated area on macular region, optic cup and optic disc ratio was normal.

Visual acuity

Before treatment	DV	NV	PH
RE	CF-5 mts	N-36	CF-5 mts
LE	6/9	N-8	6/9

DV- Distance vision, NV- Near vision, PH- Pin hole

Treatment planned

- *Chitrakadi vati* . 1-1-1 Before food for 3days^[5]
- *Takradhara*^[6] with *Musta, amalaki ,punarnava ,manjishta, and haritaki churna* for 7days 2 course
- *Nisha-amalaki churna*. One spoon(5grams) of *choorna* mixed with one glass of hot water, in the morning empty stomach. ^[7]

RESULT

After treatment	DV	NV	PH
RE	6/36	N-36	CF-5 mts
LE	6/9	N-8	6/9

Fig.A BEFORE TREATMENT 15
SEPTEMBER 2016

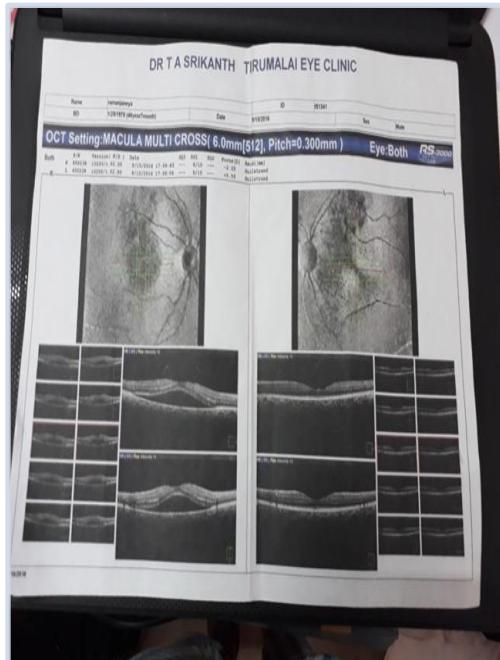


Fig.B AFTER TREATMENT 4 NOVEMBER
2016

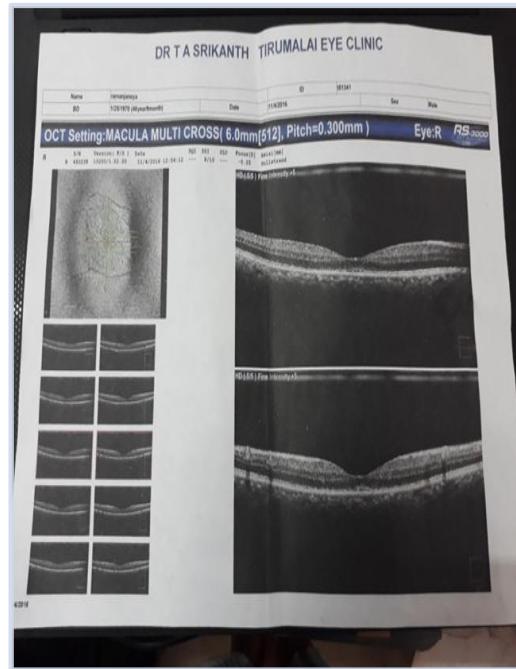


Fig.A shows the fluid accumulation (CSR) in the fovea, and Fig.B shows resolved fluid in the fovea (CSR).

DISCUSSION: Line of treatment planned on the basis of vitiation of *Doshas*, here involvement of *Vata* because of *Vimargagamana*, *Pitta* due to vitiation of *Rasavaha* and *Raktavaha srotas* (extravasation of vessels) and *Kapha* is due to accumulation of fluid. So *Vatanulomana*, *Rakta prasadana* and *Shopahara*[Anti-inflammatory] are followed.

Ama pachana for 3 days

Takradhara for 7 days

Vishrama kala 15 days

Takradhara 7 days

Follow up was done after 15 days.

Initially *Ama pachana* with *Chitrakadi vati* as it contains *chitraka*, *pippali*, *ksharas* (*yava* and *sarja*), *panchalavanas*-absorbs the excess superficial water content⁸, *Triku* helps in *Shopahara* as well as *dipana* and *pachana*⁹.

Patient was diabetic so to reduce blood glucose level *Nisha-amalaki choorna*⁷ was given along with the treatment.

Then *Takradhara* is planned for 7 days then *vishrama kala*(resting period) for 15 days then *Takra ahara* started for next 7 days. *Takradhara*(pouring of medicated butter milk over forehead) is adopted because *Dhara kalpa* having *Dhatu drudata*(tissue strengthening), *Indriya patava*⁶ and procedural effect of *Shiradhara* may act as relaxation response irrespective of *Dravya*(medicine) used. Trauma to the *Marmas* is one of the cause for edema¹⁰ so *Manasika factors*(Stress, Anxiety etc affects *Shira*(head), is one of the *Marma*(vital organ) and it has *Adhishtana*(location) of *Chakshuredriya*, the procedure checks the retinal extravasation and also Anti stress activity was also been noted by many research

workers¹¹ and stress being one of the major risk factors in central serous retinopathy, *Takra dhara* also strengthens the *Netra*, *Takra dhara* has property *Netra prakasho agada* (doesn't occur any diseases) medium it has *Pancha rasa* except *Lavana rasa*, *Ruksha guna*, *Amla vipaka*, *Ushna veerya* subsides *kapha*, *Madura* and *Amla rasa* subsides *Vata* and also *Takra* contains large amount of lactic acid, is a good vehicle for trans-dermal absorption of drugs. The efficacy of lactic acid contains products is linked to their ability to deliver it to specific skin stratum¹¹. other ingredients such as *Musta*, *Manjishta*, *Amalaki* and *Punarnava churna* (powders).

Musta is having *Laghu* and *Ruksha* property absorbs all the water content from *Meda* and *Kapha* and anti-inflammatory and antioxidant properties¹³, *Amalaki* has anti-inflammatory and antioxidant properties helps to reduce the oedema¹⁴, *Punarnava* is also having Anti-inflammatory, Anti-stress and antioxidant activities¹⁵ *Manjishta* has Anti-inflammation effect, Neuroprotective and antioxidant property¹⁶, the paste of the *Haritaki* effectively reduces the swelling and hasten the healing¹⁷.

CONCLUSION: Even though observation is first line of treatment in central serous retinopathy it takes three to six months to resolve itself in contemporary medicine, but in this case study CSR resolved in one and half month by *Takradhara* as it is found to be stress reliving factor and subside the edema.

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