



PSYCHIATRIC EVALUATION IN PATIENTS WITH CENTRAL SEROUS CHORIORETINOPATHY PRESENTING TO A TERTIARY CARE HOSPITAL

Ophthalmology

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ABSTRACT

Central serous chorioretinopathy (CSCR) is a common ocular disease characterized by decompensation of the retinal pigment epithelium (RPE), which results in neurosensory retinal detachment and RPE atrophy. CSCR is one of the ophthalmic diseases with a strong psychological association, and its management involves evaluating and treating stress and related psychological components. This cross-sectional study was conducted over six months from November 2022 to April 2023 in a tertiary care teaching hospital in North India after obtaining clearance from the Institutional Ethics Committee for patients diagnosed with CSCR. The participants underwent routine eye examinations and were also subjected to psychiatric evaluation by a qualified psychiatrist. In the study, various rating scales were used to evaluate depression and Anxiety symptoms. The collected data was compiled and analyzed using SPSS-23. The mean age of the study participants was 42.9 ± 13.7 years with 63.6% of the study subjects having Acute CSCR and 32.7% having recurrent CSCR. In psychiatric evaluation, it was found that 18.18% of participants had Type A personality, anxiety disorder was seen in 40% and major depression disorder in about 23.6% of participants. The present study demonstrated the role of type of personality, anxiety, and depression in patients with CSCR. Psychiatric evaluation and focus on propagating education and awareness regarding psychological health in such patients would be of great benefit in better evaluation and management of CSCR as well as associated psychiatric morbidity.

KEYWORDS

Central serous chorioretinopathy, Anxiety, Stress.

INTRODUCTION

Central serous chorioretinopathy (CSCR) is defined as an idiopathic localized detachment of the sensory retina at the level of the macula due to leakage at the retinal pigment epithelial (RPE) level. The pathogenesis includes hyperpermeability of the choriocapillaris. There occurs decompensation of the retinal pigment epithelium (RPE) which leads to neurosensory retinal separation, serous pigment epithelium detachment (PED), and RPE atrophy in this clinical entity. Men are affected more commonly than women, and it typically affects young or middle-aged adults ranging between 25 to 50 years of age. It is typically seen as a unilateral presentation¹.

CSCR ranks as the fourth most common non-surgical retinal disorder threatening vision. Individuals with CSCR frequently report with symptoms such as blurred vision, usually limited to one eye, commonly described as a dark spot or scotoma in the center of the visual field with accompanying symptoms like image distortion, or metamorphopsia. Additional typical symptoms include diminished contrast sensitivity, minor dyschromatopsia (abnormal color perception), and micropsia (decreased size of objects). However, CSCR patients can often have no symptoms as well.²

Most of the cases resolve spontaneously in about 3-6 months. In most cases, CSCR occurs as an acute presentation (aCSCR), with only a single episode of illness occurring in the patient's lifetime; however, it can be recurrent, and thus it can become chronic over time (cCSCR)³. Psychosomatic interrelationships with ophthalmology have been cited since the 1930s, and today, it is even more crucial than before.⁴ CSCR is one of the common ophthalmic diseases with a strong psychological association, and its management involves evaluating and treating stress and related psychological components.⁵

CSCR most often affects men with job profiles such as freelancers, managers, entrepreneurs, or workers burdened by job responsibilities. In 1986, Yannuzzi observed a strong association between CSCR and the "Type-A" personality pattern, or rather, the personality traits of having a competitive drive, a sense of urgency, an aggressive nature, and a hostile temperament.⁶

In a later report, impulsiveness, emotional instability, overachievement, and competitiveness were discussed as personality features observed in CSCR patients.⁷ More recently, the possible association between CSCR and the "narcissistic personality" (characterized by an extreme gratification of self) was suggested.⁸ During the past two decades, several independent studies have shown that CSCR occurs more frequently in men with higher emotional distress, a lower frustration tolerance threshold, and poor coping strategies for stressful events.^{9,10,11,12} The presence of recent psychological stress has been largely demonstrated as one of the most

important CSCR triggers.^{13,14,15} Resolution of the stressor may be followed by symptomatic improvement in some cases.¹⁶

Hence, this study has been conducted to evaluate Psychiatric parameters in patients with central serous chorioretinopathy presenting to a tertiary care hospital and the associated socio-demographic profile in such patients.

MATERIAL AND METHODS:

This cross-sectional study was conducted over six months from November 2022 to April 2023 in a tertiary care teaching hospital in North India after obtaining clearance from the Institutional Ethics Committee for patients diagnosed with CSCR. The patients were informed about the study in advance, and valid consent was taken from them. A total of 55 patients diagnosed with CSCR were included in the study. The exclusion criteria included patients treated with corticosteroids in the last 6 months, evidence of any systemic disease that may affect the retina, and any previous history of any retinal disease that may adversely affect the macula and outcome.

The participants underwent routine eye examinations including visual acuity assessment, slit-lamp examination, dilated fundus examination, fundus photography, fundus fluorescein angiography, and optical coherence tomography. Participants were also subjected to psychiatric evaluation by a qualified psychiatrist. In the study Zuckerman-Kuhlman Personality Questionnaire (ZKPQ), Hamilton Anxiety Rating Scale (HAM-A), and Hamilton Depression Rating Scale (HDRS or HAM-D) were used to evaluate depression and Anxiety symptoms. The collected data was compiled and analyzed by appropriate statistical measures using Statistical Package for the Social Sciences (SPSS)-23.

The demographic profile of the patients, relevant history (recurrent disease, chronic CSCR, bilateral involvement, family history, coronary artery disease (CAD), hypertension, smoking, use of steroids, history of psychiatric illness and/or medications, etc.), and ocular examination findings were recorded in a semi-structured proforma.

A detailed psychiatric history was taken from all the participants. Initially, participants were evaluated clinically (history and mental status examination) for any existing psychopathology. After that, all the subjects were scored on performance rating scales.

In the study Zuckerman-Kuhlman Personality Questionnaire (ZKPQ) was used for determining Type A personality traits. Both the Hamilton Anxiety Rating Scale (HAM-A) and Hamilton Depression Rating Scale (HDRS or HAM-D) were used to evaluate depression and Anxiety symptoms.

The patients were followed up every month for 6 months. The collected data from all of the participants was compiled and analysed by appropriate statistical measures using Statistical Package for the Social Sciences (SPSS)-23.

RESULTS AND OBSERVATIONS:

A total of 55 patients diagnosed with CSCR who agreed to undergo psychiatric evaluation were included in the study.

Table 1: Demographic Characteristics of the CSCR patients

Variable	Frequency(N)	Percentage (%)
AGE (in years)	42.9±13.7	
GENDER		
1. Male	40	72.7
2. Female	15	27.2
RELIGION		
1. Hindu	38	69.0
2. Muslim	8	14.5
3. Sikh	6	10.9
4. Christian	3	5.4
RESIDENCE		
1. Urban	30	54.4
2. Rural	25	45.4
SMOKING		
1.No	32	58.18
2. Yes	23	41.8
ALCOHOL		
1.No	38	69.0
2. Yes	17	30.9
FAMILY HISTORY OF CSCR		
1. Yes	4	7.27
2.No	51	92.7
HISTORY OF STEROID USE		
1.Yes	12	21.8
2.No	43	78.1
CORONARY ARTERY DISEASE		
1. Yes	20	36.3
2.No	35	63.6
HYPERTENSION		
1. Yes	38	69.0
2.No	17	30.9
DIABETES		
1. Yes	15	27.2
2.No	40	72.7
HISTORY OF PSYCHOTROPIC MEDICATIONS		
1. Yes	12	21.8
2.No	43	78.2

The mean age of the study participants was 42.9±13.7 years with 72.7 % being males. The majority of participants (69%) belonged to the Hindu religion and 54.4% of the study participants lived in urban areas. It was found that around (41.8%) of participants were smokers and about 30.9% consumed alcohol. The family history of CSCR was present only 7.27% and 21.8% had used steroids for one or other reason. (Table 1)

As far as comorbid conditions are concerned, 36.3% of participants had coronary artery disease, 69 % of participants had hypertension, 27.2% had diabetes and about 21.8% of patients had a history of use of psychotropic medications. (Table 1)

Table No. 2: Distribution of patients according to type of CSCR

Type	Frequency(N)	Percentage(%)
Acute	35	63.6
Chronic	12	21.8
Bilateral	15	27.2
Recurrent	18	32.7

We found that 63.6% of study subjects were diagnosed with Acute CSCR, 21.8 % of participants were reported to have chronic CSCR, 27.2% had bilateral CSCR and around 32.7% participants had recurrent CSCR. (Table 2)

Table No. 3: Distribution of patients according to various Ophthalmic characteristics

Variables		CSCR (N=55)
Eye laterality	Right eye	25 (45.4%)
	Left eye	12(21.8%)
	Bilateral	15(27.2%)
	Undetermined	3(5.45%)
Duration of CSCR attack (days)	Mean ±SD	35±12.4
No. of CSCR attacks	Mean ±SD	1.5±1.2
Initial log MAR visual acuity	Mean ±SD	0.48±0.40
Final log MAR visual acuity	Mean ±SD	0.29±0.36

It was found that the right eye was affected in 45.4%, the left eye in 21.8%, and bilateral in 27.2%. The mean duration of CSCR attacks was 35±12.4 with the mean number of CSCR attacks 1.5±1.2. The best corrected VA (BCVA) tested at the time of presentation was recorded as 6/18 to 6/60, corresponding to Log MAR 0.48–1.00, with a mean of 0.48 ± 0.40 and a median value of 0.58. (Table 3)

Table No. 4: Psychological Assessment Outcome

Variables	Frequency (N)	Percentage (%)
TYPE A PERSONALITY		
1. Yes	10	18.18
2.No	45	81.8
ANXIETY DISORDER		
1. Yes	22	40.0
2.No	33	60.0
MAJOR DEPRESSION		
1. Yes	12	23.6
2.No	43	78.1

The psychological assessment of participants was done through ZKPQ, HAM-D, and HAM-A scales. It was observed that out of the total participants, 18.18% were Type A personality, anxiety disorder was observed among 40% of participants, and major depression disorder was observed in 23.6% of participants. (Table 4)

DISCUSSION:

Our study showed that patients with CSCR had a higher risk of developing depression and anxiety disorders.

In our study, the mean age of the study participants was 42.9±13.7 years and CSCR affected mostly men. The findings of our study are consistent with the study conducted by Dudani AL et al wherein it was found that the mean age was 39.55 ± 8.33 years with a male-to-female ratio of 33:7.¹⁷ The study conducted by Hufnagel HJ et al also demonstrated similar results.¹⁸

The majority of participants (69%) belong to the Hindu religion with about 41.8% of participants with smoking habits and 30.9% consuming alcohol. These findings are consistent with a previous study conducted by Mukherji S et al.¹⁹

A family history of CSCR was present among 7.27% of study subjects with around 21.8% with a history of steroid use due to one or other reasons .36.3% of participants had coronary artery disease, 69% had hypertension, 27.2% had diabetes and 21.8 patients had a history of use of psychotropic medications. These findings of our study are in accordance with a study conducted by Haimovici et al and Sahoo NK et al.^{20,21}

Our study concluded that the majority of the participants (63.6 %) were diagnosed with acute CSCR and the right eye was affected in 45.4% of participants. The mean duration of CSCR attacks was 35±12.4 with a mean number of CSCR attacks were 1.5±1.2. These results are consistent with the study conducted by Sahoo NK et al.²¹

Patients with acute CSCR showed a significantly higher prevalence of

psychiatric comorbidity in a very large case-control study²². Increasing evidence correlates the occurrence of CSCR with anxiety and stress^{23,24,25}.

During the psychiatric evaluation, we observed that out of the total participants about 18.18% were Type A personality, anxiety disorder was observed among 40% of participants and major depression disorder was observed in 23.6% of participants as corroborated with the studies conducted by Mukherjee S et al and Mylona I et al.^{19,26}

This study has limitations as it was conducted on a small sample size. Only the patients presenting to eye OPD and agreeing to a psychiatric evaluation were included in the study. We need to conduct such studies with varied population sizes and socio-demographic profiles to study in depth the psychiatric parameters and evaluation of patients presenting with central serous chorioretinopathy.

CONCLUSION:

The present study demonstrated the role of type of personality, anxiety level, and depression disorder in patients with CSCR. Psychiatric evaluation and focus on propagating education and awareness regarding psychological health in such patients would be of great benefit in better evaluation and management of CSCR as well as associated psychiatric morbidity. It would be highly beneficial if an early diagnosis of psychiatric disorders in ophthalmology is done and vice versa. This would ultimately lead to better care of the patients. Such patients also need to be counselled to include activities like yoga, and meditation and also improve their lifestyle. Psycho-ophthalmology is certainly going to be an extensive field to be studied and developed in the future which would help to join different professionals from various fields to work together for the betterment of the people.

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