Antidepressant Treatment in Chronic Central Serous Chorioretinopathy: Case Series

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ABSTRACT

The study investigated chronic central serous chorioretinopathy (CSCR) patients who were observed and treated between February 2023 and 2024. It is a prospective, observational case series. Three patients diagnosed with chronic CSCR, aged between 38 and 64 years, were included in the study. One (33.3%) of the patients was female and two (66.7%) were males. The patients were followed with Optical Coherence Tomography (OCT) and OCT angiography for 12 months under oral escitalopram 10 mg treatment. Following the treatment, both anatomical improvement and visual acuity increase were detected in all patients. In addition to the advantage of being noninvasive, oral escitalopram treatment appears to contribute quickly and effectively to anatomical and functional recovery.

Key Words: *Central serous chorioretinopathy, Choroid, Visual acuity, Depression, Escitalopram*.

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INTRODUCTION

Central serous chorioretinopathy (CSCR) is characterised by a thick choroidal layer, increased choroidal vascular permeability, and serous retinal pigment epithelial detachment (PED), which mostly affects the macula.[1] It affects the 20-50 years age group and in men, type A personality, anxiety, depression, psychotic disorders, endocrinological factors, and sleep disorders are the known risk factors for the development of CSCR.[2,3]

In the current study, three cases of chronic CSCR were treated with oral escitalopram (10 mg) in addition to the required medication. The cases were observed for 12 months with best-corrected visual acuity (BCVA), Spectral Domain-Optical Coherence Tomography (SD-OCT), and Optical Coherence Tomography-Angiography (OCT-A).

This prospective and observational case series was conducted on chronic CSCR patients who were followed and treated at the Department of Ophthalmology, between February 2023 and 2024. When the patients were diagnosed with chronic CSCR, they were referred to the psychiatry clinic. On psychiatric consultation, it was determined that they had a type A personality and a tendency towards depression. Escitalopram treatment was started upon the recommendation of the psychiatry clinic.

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Three patients (three eyes) diagnosed with chronic CSCR who did not achieve remission were followed for 12 months with topical 4 mg ketorolac tromethamine, topical 10 mg/ml brinzolamide, oral 250 mg acetazolamide, and oral 10 mg escitalopram. At each visit, patients' best-corrected visual acuity (BCVA), and cross-sectional macular analysis with SD-OCT and OCT-A (The REVO FC, Optopol, Krakow, Poland) were conducted.

CASE 1:

A 38-year male patient was observed for left chronic CSCR for 10 months. He was described as having intense work stress. During the first visit at the retina clinic, BCVA was 0.70 LogMAR. SD-OCT showed PED and subfoveal retinal pigment epitheliopathy and the choroidal thickness was 452 mm. OCT-A was normal. After the treatment process, a gradual increase was observed in BCVA follow-ups at subsequent visits, 0.6 at the end of month 3, 0.2 LogMAR 6 and 12 months. SD-OCT showed a gradual decrease in subretinal fluid (SRF).

CASE 2:

A 64-year female patient was followed for right chronic CSCR for 6 months before her visit to the retina clinic. Although she had an anxiety disorder for a long time, she stated that she did not receive any treatment for it. During the first visit, BCVA was 0.20 LogMAR. On SD-OCT, there was PED and parafoveal minimal retinal pigment epitheliopathy and the choroidal thickness was 460 mm. OCT-A was normal. During the post-treatment process, the BCVA increased to 0.10 in the 3rd month and 0.00 LogMAR in the 6th month. On investigation with SD-OCT at 12 months, it was revealed that there was no PED and minimal parafoveal pigment epithelial loss (Figure 1).

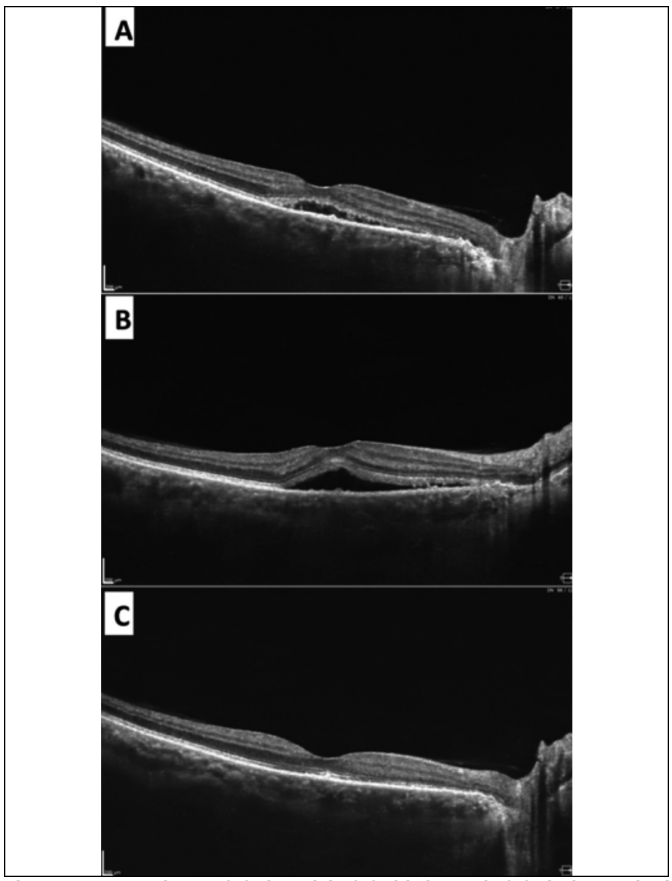

Figure 1: SD-OCT image (A) First visit. (B) Third month. (C) Sixth month of the patient presented in case 2.

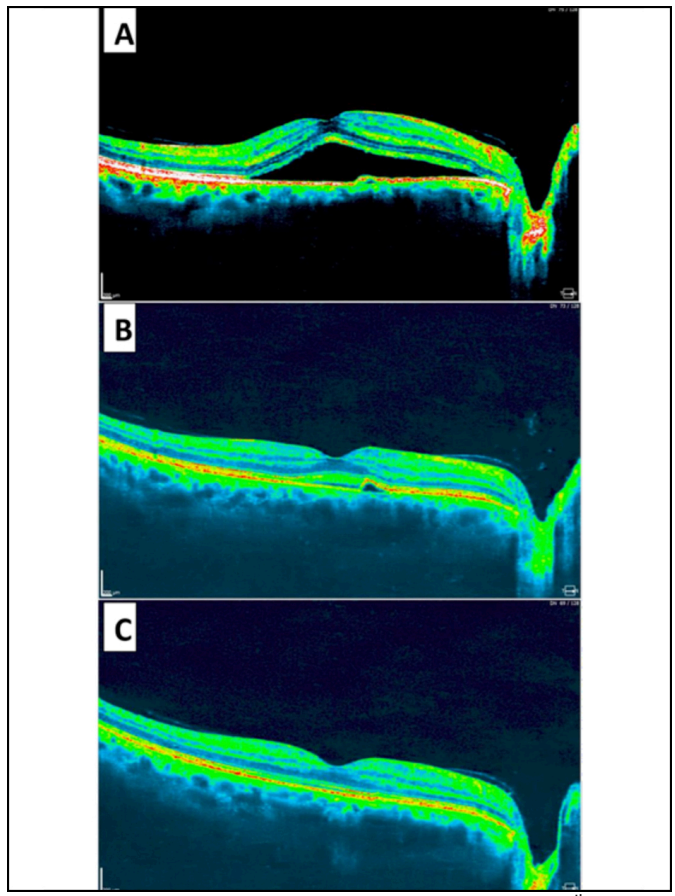

Figure 2: SD-OCT images (A) First visit. (B) Third month. (C) 12th month of the patient presented in case 3.

CASE 3:

A 52-year male patient was followed up with a diagnosis of CSCR in the right eye for 4 months before consulting the retina clinic. At the first visit, the patient mentioned that he had intense work stress for more than a year, BCVA was 0.20 in LogMAR. In SD-OCT, there was PED and parafoveal minimal retinal pigment epitheliopathy and the choroidal thickness was 458 mm. OCT-A was normal. During the post-treatment process, the BCVA increased to 0.10 in the 3rd month and 0.00 LogMAR in the 6th month. During the investigation with SD-OCT at 12 months, it was revealed that there was no PED (Figure 2).

DISCUSSION

Previous studies have indicated that risk factors such as type A personality, stress, and anxiety disorder as well as psychiatric disorders predispose to the occurrence of chronic CSCR. Sesar *et al*. suggested that high levels of perceived stress in individuals are the most important psychological risk factor for CSCR.[4]

Dudani *et al*. argued that treatment with anxiolytics and antidepressant medicines is necessary in patients with panic attacks, anxiety, depression, and chronic CSCR.[5] After a psychiatric evaluation, 90% of the patients group who followed up with anxiolytics and antidepressant medications did not show any recurrence within one year.[6]

Eplerenone, an oral mineralocorticoid receptor antagonist frequently used in CSCR, has been shown to provide limited benefit in chronic CSCR patients with widespread retinal pigment epithelial changes.[7]

Although, the significance of stress, anxiety, and psychiatric disorders in the development of chronic CSCR is frequently emphasised in the literature, studies investigating the benefits of antidepressant medication are quite limited. In the current study, it was determined that the visual acuity value increased in the patients; moreover, there was an anatomical improvement in OCT. Unlike other medical treatments that appear to be effective in acute CSCR, it was observed that the significance of escitalopram medication was in treatment-resistant chronic CSCR patients. Therefore, in the present case series, when escitalopram was utilised to support the treatment of chronic CSCR patients whose remission could not be achieved, improvement in both anatomical and physiological functions was observed within 12 months at the latest. It is considered that the response of chronic CSCR patients to medical treatment without the requirement for invasive treatment will make a significant contribution to the literature.

The limitations of this study are that the number of cases is small and the follow-up period is limited to 12 months. There is a need for more studies on this subject with more patients and longer follow-up periods.

PATIENTS' CONSENT:
An explicit consent has been obtained from each patient to publish this case series.

COMPETING INTEREST:
The author declared no conflict of interest.

AUTHOR'S CONTRIBUTION:
CT: Substantial contribution to the conception or design of the work, drafting, and critically revising the manuscript for important intellectual content and approved the final version of the manuscript to be published.

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