

BOHR International Journal of Current Research in Optometry and Ophthalmology 2022, Vol. 1, No. 1, pp. 14–15

DOI: 10.54646/bijcroo.2022.05

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CASE REPORT

# Correlation between warfarin, winter, and central serous chorioretinopathy

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Received: 05 March 2022; Accepted: 14 March 2022; Published: 25 March 2022

Central serous chorioretinopathy (CSC) is a retinal disease characterized by diminution of vision and neurosensory macular detachment. We present a case report of a 50-year-old male with a history of deep vein thrombosis, who developed CSC after warfarin intake along with two episodes of CSC developed in subsequent winter seasons.

**Keywords:** 

## Case report

A 50-year-old male presented this winter with complaint of blurred vision in the right eye for 1 week. He stated that he started on warfarin therapy for deep vein thrombosis a few days ago and that the drug might be the reason for his decreased vision. He further mentioned that he had a similar episode of decreased vision in his right eye last winter, which returned back to normal after 2 months. He had no previous records with him. He was a nonsmoker, nonalcoholic, and vegetarian. His physical and systemic examination showed his condition was within the normal limits. His vision in the right eye was 6/9, which improved to 6/6 with +0.50 D sphere, while visual acuity in the left eye was 6/6. The pupillary reactions, ocular movements, slit-lamp examination, intraocular pressure, gonioscopy, and color vision were normal in both the eyes. Fundus examination of the right eye revealed a characteristic "ring reflex" (corresponding to the serous neurosensory detachment) at the macula and optical coherence tomography (OCT) revealed neurosensory detachment with subretinal fluid (Figure 1). Fundus fluorescein angiography (FFA) was not done due to non-availability.

Taking into account the above signs, symptoms, and investigations, a diagnosis of CSC was made. His routine blood profile was normal. The patient was started on eplerenone 25 mg once a day (OD), acetazolamide 250 mg OD, and nepafenac eye drops 0.3% OD. He was advised to review after 3 weeks and bring all his old medical records.

Later, the patient presented after 1 month and his old records revealed that he had CSC in the right eye last winter. On examination of his right eye, his vision had improved to 6/6. His OCT also was near-normal, although he complained of distorted vision.

The association of warfarin with CSC and CSC occurring in winter season all these may be a coincidence or otherwise. Hence, further studies are warranted.

### **Discussion**

Central serous chorioretinopathy most commonly affects the young and middle aged, with Asian people and males being predominantly affected (1). Risk factors for the development of this disease is a type A personality, steroid use, Cushing's syndrome, collagen vascular diseases, pregnancy, alcohol, hypertension, and *Helicobacter pylori* infection (2). The common signs and symptoms are a history of sudden decrease in vision, metamorphopsia, scotoma, or decreased color vision (3). OCT of such patients show a characteristic neurosensory detachment with subretinal serous fluid accumulation (4). One study reported that the prevalence of CSC was highest in spring (5).

Central serous chorioretinopathy is mostly a self-limiting disease, and in most cases, it resolves spontaneously within 2–3 months. When indicated, treatment options include laser photocoagulation, verteporfin photodynamic therapy, and intravitreal bevacizumab (6). Drugs like eplerenone, acetazolamide, aspirin, melatonin, propranolol, rifampicin,



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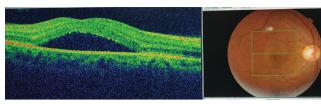


FIGURE 1 |

mifepristone, and finasteride have also been used with success (7).

## References

1. Tsai D, Chen S, Huang C, Chou P, Chung C, Huang P, et al. Epidemiology of idiopathic central serous chorioretinopathy in Taiwan, 2001-2006: a

- population-based study. PLoS One. (2013) 8:e66858. doi:  $10.1371/\mathrm{journal}.$  pone.0066858
- Liew G, Quin G, Gillies M, Fraser-Bell S. Central serous chorioretinopathy: a review of epidemiology and pathophysiology. Clin Exp Ophthalmol. (2013) 41:201–14.
- Farzan K, Rezaei L, Ghanbari H, Dehghani A. Central serous chorioretinopathy following kidney transplantation. Saudi J Kidney Dis Transpl. (2014) 25:615–20.
- Gruszka A. Potential involvement of mineralocorticoid receptor activation in the pathogenesis of central serous chorioretinopathy: case report. Eur Rev Med Pharmacol Sci. (2013) 17:1369-73.
- Treder M. Seasonal influence on the appearance of central serous retinopathy. Kompass Ophthalmol. (2020) 6(suppl 1):19–21. doi: 10.1159/ 000511334
- Gemenetzi M, De Salvo G, Lotery A. Central serous chorioretinopathy: an update on pathogenesis and treatment. *Eye (Lond)*. (2010) 24:1743–56.
- Bhushan G. Medical management of central serous retinopathy. DOS Times May June. (2018) 23:73–4.