

INTRODUCTION

Central retinal vein occlusion (CRVO) is a common cause of vision loss in older individuals. Local and systemic risk factors have been found consistently to be associated with the onset of CRVO. Recently, hyperhomocysteinemia has emerged as a new risk factor to retinal vascular diseases. The role of dietary supplementation with folic acid and vitamin B6 are still being debated in this cases.

CASE REPORT

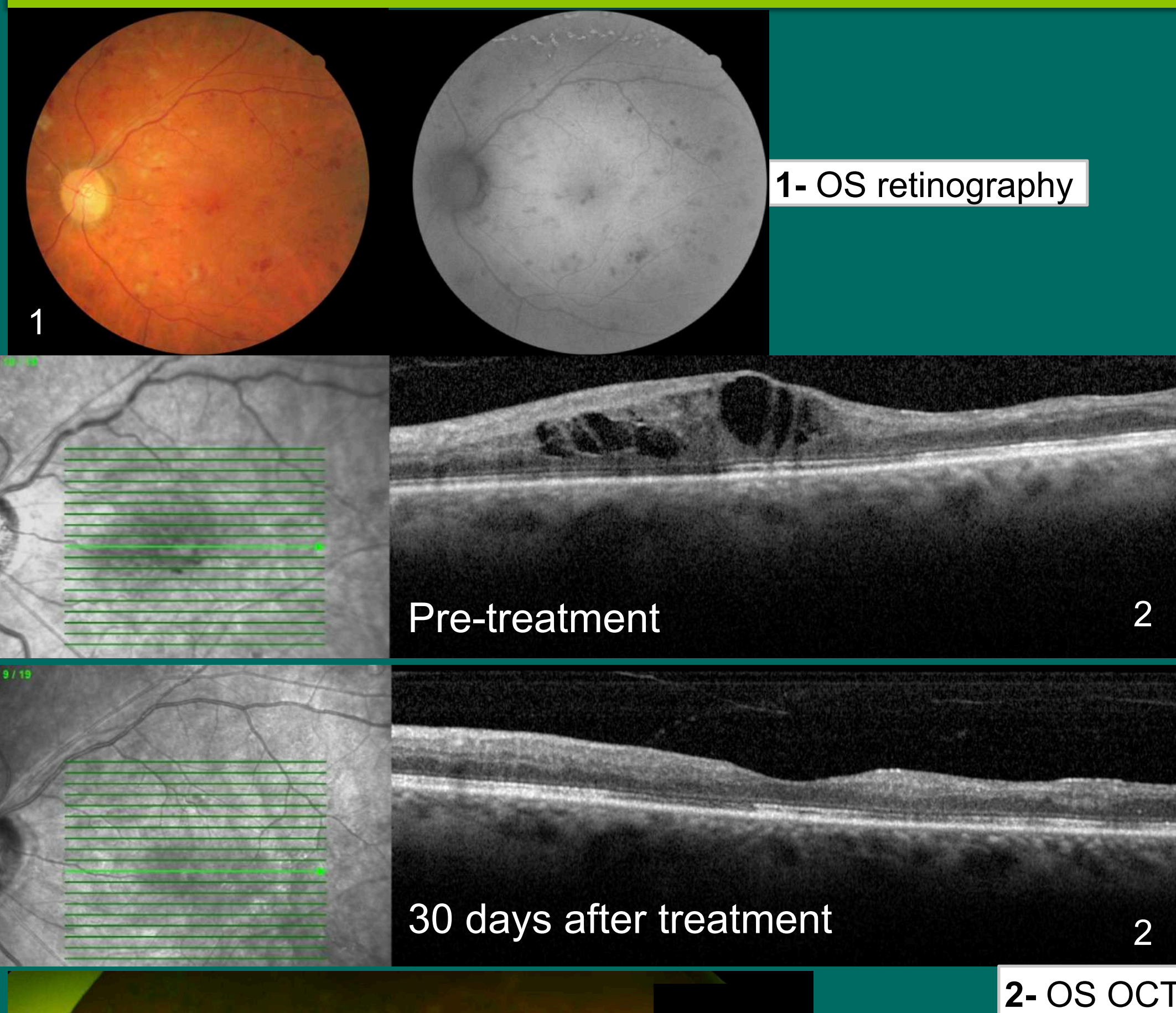
61-year-old patient, female, previously healthy, admitted to an eyecare due to vision loss in the left eye (OS) for three months. She had already undergone laser treatment and intravitreal Aflibercept applications, both performed by another doctor. Ophthalmological examination presented with visual acuity of 20/20 in the oculus dexter (OD). Left eye (OS) was 20/200. Dilated fundus (image 1), appeared normal in the right eye. Left eye presented with intraretinal hemorrhages, intraretinal flame hemorrhages in all quadrants, and laser marks compatible with CRVO.

Optical Coherence Tomography (OCT) (image 2) confirmed macular edema in the OS.

Patient underwent a complete cardiovascular investigation that revealed only hyperhomocysteinemia (32 μ mol/L).

Aflibercept and focal laser were chosen to treat macular edema. Vitamin B6 and folic acid were introduced in an attempt to prevent new thromboembolic phenomena.

PICTURES



DISCUSSION

Evidence shows that high homocysteine causes endothelial injury and dysfunction. It also stimulates the vascular smooth muscle cells and inhibits the growth of vascular endothelial cells leading to atherosclerosis. Elevated homocysteine may result from low levels of folic acid, vitamin B6, B12 or genetic alterations. Studies suggested that in older patients nutritional rather than genetic factors may be more important in raising plasma total homocysteine levels and that vitamin supplementation with folic acid and vitamin B reduces homocysteine levels. Measurement, treatment and monitoring homocysteine levels may be valuable in the management of these patients and might help prevent recurrent disease in the same eye or its development in the fellow eye, and improve the prognosis.

REFERENCES

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