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A Case of Central Retinal Vein Occlusion Resulting from Papillophlebitis

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Abstract: A 44-year-old woman complaining of visual disturbance in her left eye was referred to our hospital. The best-corrected visual acuity (BCVA) in the left eye was 0.3. Fundus examination revealed tortuous retinal veins and a reddish swollen optic disc in the left eye. Fluorescein angiography demonstrated mild hyperfluorescence on the optic disc and staining of the retinal veins without non-perfusion area. We diagnosed the condition as a central retinal vein occlusion (CRVO) caused by papillophlebitis. Systemic administration of corticosteroid was initiated. The BCVA improved to 0.7, and the fundus changes were resolved one month later. We should be aware of papillophlebitis for young female presented CRVO.
Keywords: Central retinal vein occlusion, Papillophlebitis, Optic disc vasculitis.

INTRODUCTION

Papillophlebitis is an uncommon ophthalmologic condition characterized by unilateral optic disc edema, dilatation, and tortuosity of the major retinal veins with a variable amount of retinal hemorrhage [1, 2]. Unlike classic central retinal vein occlusion (CRVO), patients suffering from papillophlebitis are usually healthy and younger than 50 years of age [1-4]. Herein, we report a case of CRVO resulting from papillophlebitis in a 44-year-old woman.

CASE REPORT

A 44-year-old woman complaining of a 1-week history of visual disturbance in the left eye was referred to our hospital. Her personal and family histories were unremarkable. On ophthalmic examination, the best-corrected visual acuity (BCVA) in the right eye was 1.2 and the acuity in the left eye was 0.3. The ocular pressures were normal. Slit lamp examination did not reveal abnormalities in either anterior segment. Fundus examination revealed tortuous retinal veins and a reddish swollen optic disc in the left eye (Figure 1B). In contrast, no abnormal findings were observed in the right eye (Figure 1A).

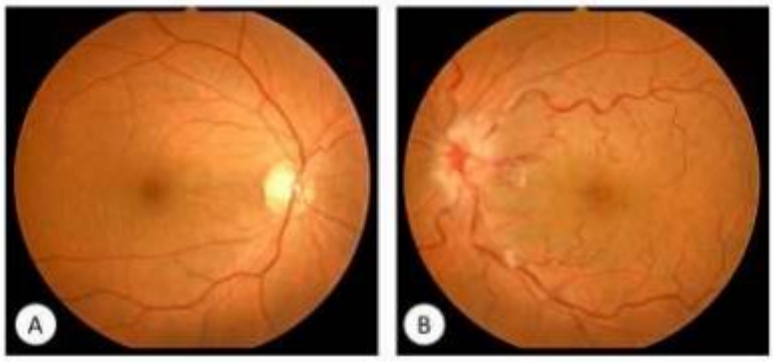

Fig-1: Fundus photographs of the right (A) and left (B) eye at the initial visit

Fluorescein angiography demonstrated mild hyperfluorescence on the optic disc (Figure 2).

Her blood laboratory findings, electrocardiogram, and chest X-ray examinations were unremarkable. We diagnosed the condition as a CRVO due to papillophlebitis. The patient was started on corticosteroid (30mg daily) as oral tablet. The BCVA improved to 0.5, and the fundus changes were gradually resolved two week later (Figure 3A). One month later, the BCVA recovered to 0.7, and the fundus changes were completely resolved (Figure 3B). These findings remained stable during the 3-month follow-up period.

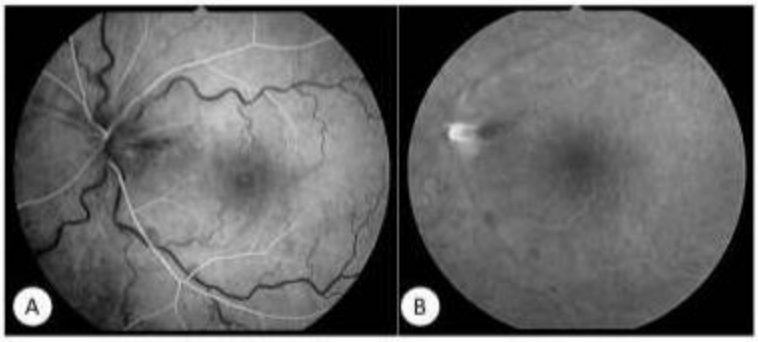

Fig-2: Fluorescein angiography (A: early phase, B: late phase) demonstrated hyperfluorescence of the optic disc

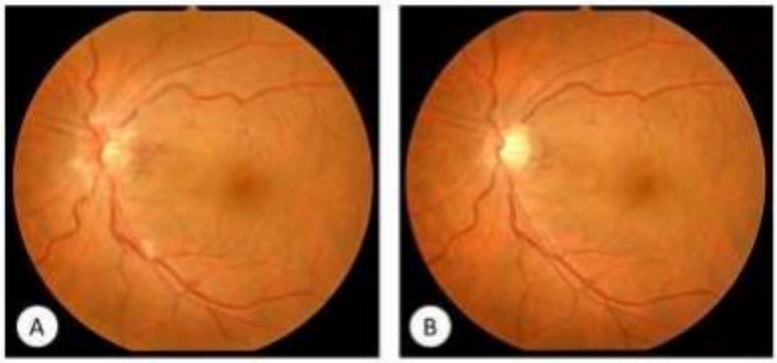

Fig-3: Left fundus photographs (A: two week after the initial visit, B: one month after the initial visit)

DISCUSSION

The appearance of unilateral optic disc edema, dilatation, and tortuosity of the major retinal veins with a variable amount of retinal hemorrhage has been called papillophlebitis, optic disc vasculitis, and non-ischemic CRVO [3]. Hayreh [2] proposed that a mild, nonspecific vasculitis of ciliary vessels in the loose prelaminar region leads to optic disc edema. If the disc edema progresses to compress the venous channels on the prelaminar region, the classic picture of CRVO may develop.

In papillophlebitis, it might result from a phlebitis of major retinal veins surrounding the optic nerve. The inflammation promotes venous thrombosis, which produces papilledema [3]. Hayreh [2] proposed that the primary pathophysiologic mechanism involved non-specific vasculitis of the posterior ciliary vessels in the prelaminar region. He postulated that the chain of events may be mild non-specific vasculitis of the posterior ciliary vessels in the prelaminar region of the optic nerve head → increased capillary permeability → leakage of fluids in the prelaminar region → optic disc edema → compression of the venous channels in the prelaminar region because of restricted space there → capillary engorgement → more optic disc edema [3].

The available evidence indicates that steroid therapy has a beneficial effect in significantly accelerating the resolution of optic disc edema and inflammation [3].

Finally, we should be aware of papillophlebitis for young female presented CRVO.

REFERENCES

1. Fong AC, Schatz H. Central retinal vein occlusion in young adults. Survey of ophthalmology. 1993 Jun 30;37(6):393-417.
2. Hayreh SS. Optic disc edema in raised intracranial pressure: V. Pathogenesis. Archives of ophthalmology. 1977 Sep 1;95(9):1553-65.
3. Oh KT, Oh DM, Hayreh SS. Optic disc vasculitis. Graefe's archive for clinical and experimental ophthalmology. 2000 Aug 1;238(8):647-58.