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Isolated cilioretinal artery occlusion: A case report

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Abstract
Purpose: To report a case of isolated cilioretinal artery occlusion in a 55 years old man.
Methods: A 55 years old man presented with sudden, painless diminution of vision in the left eye since one day. Best corrected visual acuity was 20/20, N6 in the right eye and Counting Fingers at 0.5 metres in the left eye. Anterior segment examination was normal. Fundus examination of the left eye revealed an occluded cilioretinal artery with an area of papillomacular infarction and macular oedema. OCT confirmed intraretinal oedema in the area of the infarct. Glycosylated hemoglobin was 8.1%, Fasting blood sugar was 107 mg/dl while the post prandial blood sugars were 257 mg/dl. Carotid Doppler was within normal limits. He was started on oral hypoglycemic agents and aspirin 75 mg OD by the physician.
Results: By 3 weeks, he regained left eye vision to 20/30, N6.The patient was lost to follow up after 4 visits.
Conclusion: Prophylactic aspirin may have a role in early visual recovery in isolated cilioretinal artery occlusion.

Keywords: Isolated Cilioretinal artery occlusion, papillomacular infarction, macular edema

1. Introduction

Cilioretinal artery is a branch of short posterior ciliary artery, that has been reported to be present in about 20% of eyes clinically and about 32% of eyes angiographically. [1] The point of entry into the retina is usually from temporal aspect of the optic disc. Occlusion of this artery may present in the following three ways: Isolated, in association with Central Retinal Vein Occlusion or in association with Anterior Ischemic Optic Neuropathy. [2] Isolated occlusion of the cilioretinal artery is a rare entity that has been seen in only 5% of all retinal artery occlusions.

2. Case Description

A 55 years old man presented with sudden, painless diminution of vision in the left eye since one day. He gave no history of any comorbidities. On examination, best corrected visual acuity was 20/20, N6 in the right eye and Counting Fingers at 0.5 metres in the left eye. Anterior segment examination was normal, intraocular pressures were 16 mm Hg in both eyes and there was no pupillary abnormality. Fundus examination of the right eye was within normal limits while that of the left eye revealed an occluded cilioretinal artery with an area of papillomacular infarction and macular oedema. [Figure 1] Optical Coherence Tomography confirmed intraretinal oedema in the area of the infarct. [Figure 2]The patient was advised Fundus Fluorescein Angiography, but it was deferred due to non-consent. Physician reference was sought for thorough evaluation. General and systemic examination was within normal limits. Blood pressure was recorded at 130/90 mmHg with a regular heart rate of 80 bpm. Complete blood counts, ESR, haemoglobin, urea and creatinine were within normal limits. Glycosylated hemoglobin was 8.1%, Fasting blood sugar was 107 mg/dl while the post prandial blood sugars were 257 mg/dl. Carotid Doppler was within normal limits. He was started on oral hypoglycemic agents and aspirin 75 mg OD by the physician. He was called for regular follow up and fundus pictures were taken at each visit for charting progress. By 3 weeks, he regained left eye vision to 20/30, N6.The patient was lost to follow up after 4 visits.

3. Discussion

The precipitating factors for cilioretinal artery occlusion are diverse and the following have been implicated - embolism, carotid atherosclerosis, hypertensive crisis, vasculitis, pseudoexfoliation syndrome and increased blood viscosity (polycythemia Vera).

Interestingly, in the present case there were no signs of any of the above. The only co morbidity present was diabetes mellitus. Also, previous authors have reported a near complete recovery of vision only by 8 weeks in most cases, [3, 4] while it was regained within 3 weeks in the above case, following control of blood sugars. In conclusion, there is a need to further explore and identify possible risk factors that may contribute to the causation of this condition. Also, prophylactic aspirin may have a role, both in early recovery as well as in preventing associated venous occlusion, but further studies are required to establish the same.

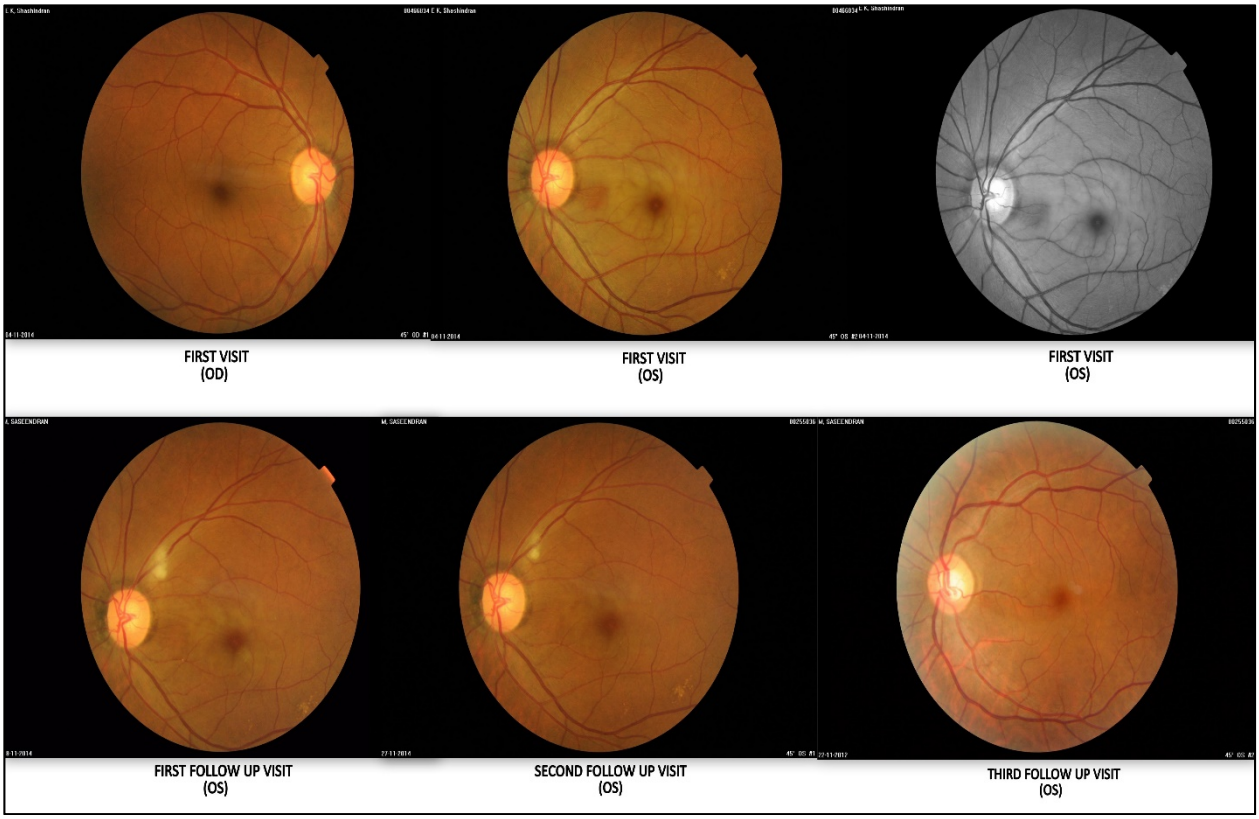

Fig 1: Serial Fundus Pictures Taken At Each Visit

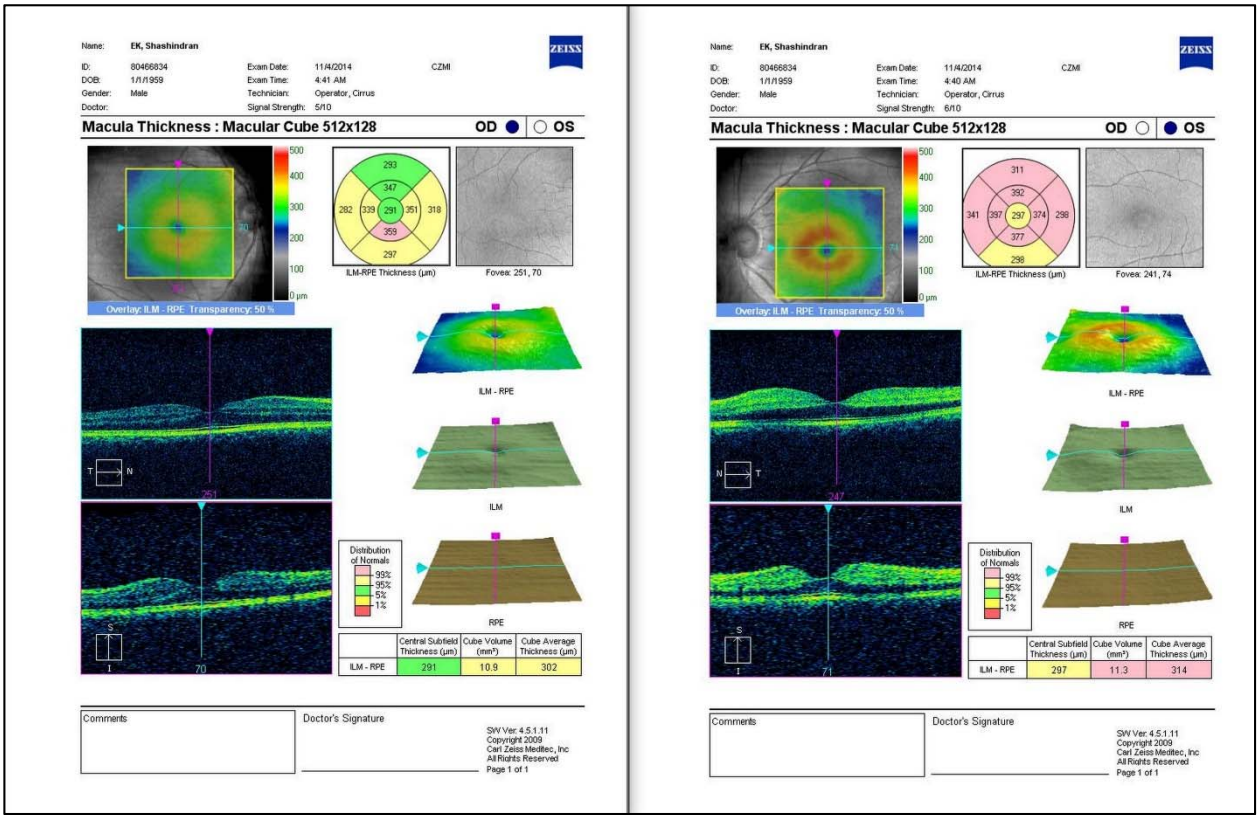

Fig 2: OCT OS shows intraretinal edema.

The authors have no financial interests.

4. References

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