

CASE REPORT

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Branch retinal vein occlusion associated with quetiapine fumarate

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Abstract

Background: To report a case of branch retinal vein occlusion in a young adult with bipolar mood disorder treated with quetiapine fumarate.

Case Presentation: A 29 years old gentleman who was taking quetiapine fumarate for 3 years for bipolar mood disorder, presented with sudden vision loss. He was found to have a superior temporal branch retinal vein occlusion associated with hypercholesterolemia.

Conclusion: Atypical antipsychotic drugs have metabolic side effects which require regular monitoring and prompt treatment.

Background

Retinal vein occlusions (RVOs) frequently occur in the elderly in association with atherosclerosis. Hypertension is the commonest cause of RVOs in such population. In young adults, RVOs are associated with vasculitis and coagulopathies. Extensive work-up is required as both vasculitis and coagulopathies can lead to severe systemic morbidity and mortality. We describe a case of branch retinal vein occlusion in a young adult who has been taking quetiapine fumarate for 3 years.

Case Presentation

A 29 years old gentleman was referred from the emergency department with the complaint of sudden painless vision loss of his left eye for the past 1 week. Since onset, he experienced progressive generalized blurring of the central vision. There was neither photopsia nor floaters. Systemic review was not significant. He has no symptoms and signs of systemic vasculitis such as rashes, joint pains or mucosal surface ulcers. He was diagnosed of bipolar mood disorder in 2008, and was treated with oral quetiapine fumarate 100 mg daily. His bipolar mood disorder responded well to quetiapine fumarate without any side effects. Sexual history was not significant and he has no

history of substance abuse or smoking. There was no family history of vascular events as well.

He was a medium built individual with a body mass index of 24.83 kg/m² (height 165.5 cm, body weight 68 kg). His body weight prior to quetiapine treatment was 62 kg. Blood pressure was 122/74 mmHg with a regular pulse rate of 80 beats per minute. The visual acuity of his left eye was 0.33, with near visual acuity of N24 at 33 cm. The right eye had visual acuity of 1.0 and near vision of N6 at 33 cm. Confrontation test revealed a left central scotoma. Relative afferent pupillary defect was absent. Anterior segment examination for both eyes was normal. The intraocular pressure was 16 mmHg bilaterally.

Posterior segment examination of the left eye revealed flame-shaped retinal haemorrhages along an arcuate course, corresponding to the supero-temporal retinal nerve fibre layer. Macular oedema involved the fovea and was associated with partial macular star due to hard exudates deposition. Intraretinal pigmentary spots with adjacent typical red blot hemorrhages believed to be resolving blot hemorrhages were seen. The patient has never had any laser treatment before. The supero-temporal retinal vein was dilated and tortuous along its entire course (Figure 1). The arterio-venous ratio was 2:3 infero-temporally but was 1:3 supero-temporally. There were increased arteriole reflexes with arteriovenous nicking which was confined only to the supero-temporal retinal artery of the left eye. The optic disc was pink with well-defined margin and cup-disc ratio of 0.5. There was

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