Reviewer's report

Title: Multiple Branch Retinal Vein Occlusions Associated with Quetiapine Fumarate

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Reviewer: Ronald Gentile

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COMMENTS:
In the manuscript entitled “Multiple branch retinal vein occlusions associated with Quetiapine Fumarate” the authors report one case of a young man who developed branch retinal vein occlusions (BRVOs) while on Quetiapine Fumarate. The BRVO caused acute loss of vision in the left eye. The patient was on Quetiapine Fumarate for three years for a bipolar mood disorder. The patient appears to have developed an associated, but mild, dyslipidaemia, from the Quetiapine Fumarate that was felt to contribute to the BRVO. Even though there is a link between dyslipidaemia and BRVO, the evidence in this case is not very strong since the patient’s dyslipidaemia is not severe and I suspect other factors may be playing a role in this case. The authors conclude based on this case that, “atypical antipsychotic drugs have metabolic side effects which require regular monitoring……..”. This conclusion is already well known among doctors who prescribe Quetiapine Fumarate since it has been associated with high triglycerides in 23 percent and high cholesterol in 16 percent of patients taking Quetiapine Fumarate.

1. Since unintended reactions to medicines also referred to adverse drug reactions (ADRs) can occur, it is difficult to definitively and directly link Quetiapine Fumarate to this patient’s BRVO. Symptoms that occur soon after a drug is taken are often easier to show cause and effect, especially when a rechallenge can be performed to confirm the link. This case is difficult to show the relationship since BRVOs are very common, the relationship may be coincidental and only marginally related.

Case:
1. The supero-temporal retinal vein and the infero-temporal vein do not appear much different. The clinical photo is consistent with an acute brvo occurring at a second order venous branch that appears to originating one disc diameter along the major superior temporal vein. This should be reanalyzed and addressed.

2. Fluorescence angiogram would be very helpful in this case and should be added.

3. The second smaller inferior temporal BRVO would need fluorescence angiogram evidence to confirm since I can not be sure this is a definite BRVO based on the photo. On Figures 1 and 2 the hemorrhages appear mainly flame
shaped it does not appear to follow any particular retinal vein.

4. Pigmentary spots involving the superior macular are unusual and need to be explained. They appear reminiscent of past focal laser treatment. This should be addressed.

5. The retinal arterioles in all quadrants appear to be attenuated and there are increased arteriole reflexes with AV nicking. The other eye should be checked for this finding too. Other causes for this need to be investigated since the patient’s mild and not very long standing dyslipidaemia seems out of proportion to this finding. Family history of vascular events, history of smoking, history of obesity, history of drug use or HTN would need to be investigated including a homocysteine level.

6. Additional follow-up and how the patient was treated would be helpful.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.