

Case Report

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Macroaneurysm Rupture after Car Accident

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ABSTRACT

Retinal arterial macroaneurysm (RAM) is an acquired, round dilation of a retinal artery which can present with a variety of retinal findings and is often misdiagnosed at first. Patients with RAM usually complain of acute, severe vision loss. We present a 48-year-old patient who came to neuro-ophthalmology clinic with blurry vision which was started after car accident.

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Case Report

The patient is a 48-year-old Hispanic man who presented to neuro-ophthalmology clinic with blurry vision right eye. He had a history of head trauma by car accident on March 2020. He did not lose consciousness. He is otherwise healthy. He noticed vision loss on right eye with no associated headaches, diplopia or any other eye-related symptoms the day after car accident. He does not have any past medical history. On eye exam, vision is 20/100: OD and 20/20: OS and IOP is 18 OU. Color vision is 6/11 OD and 11/11 OS. There is no nystagmus or intrusion in saccadic and/or pursuit movement. Pupil reaction is normal to light. There is no RAPD. Dilated eye exam shows retinal hemorrhage inferotemporal associated with exudate right eye. Retina exam is normal on left eye. Visual field test shows superior nasal defect on right eye which is consistent with inferotemporal retinal hemorrhage (Figure 1). OCT retina and optic nerve is within normal limits. Figure 2 shows fundus photo right eye.

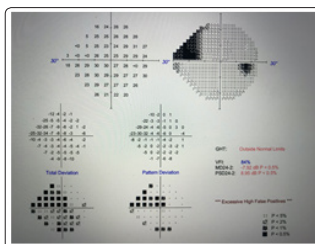


Figure 1



Figure 2

Discussion

Retinal arterial macroaneurysm is focal dilatation of the retinal arteries that occurs with retinal hemorrhage or exudation. It is usually accomplished by systemic hypertension, arteriosclerosis and cardiovascular disease [1]. Variable clinical presentations of RAM causes many differential diagnoses such as Coats' disease and von Hippel-Lindau disease, retinal vein occlusion and

diabetic retinopathy. Proper diagnosing tests can help differentiate macroaneurysms from other mimic retinal abnormalities. Fluorescein angiography is one of the most useful tests for confirming RAM. Management of RAM depends on the clinical findings and associated complications. Prognosis is good and observation is usually sufficient treatment. Most of the patients experience a period of thrombosis or fibrosis which later, prior visual acuity returns spontaneously. RAMs without hemorrhage or exudates may be monitored every six months until complete recovery. In patients with ruptured RAM with hemorrhage or exudation, observation is necessary after the first month, then follow-up each 1 to 3 months until improvement [2,3,4]. Rina Sato reported three cases of macular hole secondary to a ruptured retinal arterial macroaneurysm [5].

Conclusion

Patients with Retinal arterial macroaneurysm need to be monitored by their primary care physician for hypertension, hyperlipidemia and arteriosclerosis. Prognosis is good and observation is usually suitable treatment. Accurate diagnosis and on-time management play important roles in saving patient's vision and prevent more complications.

Disclosure Statement

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