

Ruptured Retina Artery Macroaneurysm Presenting with Recurrent Vitreous Haemorrhage: A case report

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SUMMARY

A 74-year-old hypertensive presented with recurrent vitreous haemorrhage. Examination showed a ruptured retinal arterial macroaneurysm. Control of systemic hypertension was associated with resolution. Risk factors and management are discussed. Ruptured retinal arterial macroaneurysm should be considered in elderly hypertensive patients presenting with vitreous haemorrhage.

Keywords: retinal arterial macroaneurysm; vitreous haemorrhage; systemic hypertension

CASE REPORT

Patient KO, a 74-year-old woman was referred to the Retina Clinic of the University College Hospital, Ibadan on account of bleeding into LE. The presenting episode occurred suddenly and was painless about 2 months before presentation. She had 2 previous episodes of blurred vision that recovered gradually after 3 months. She had no antecedent trauma and no history of bleeding diathesis. She is a known hypertensive with poor treatment compliance. Systemic examination revealed blood pressure of 190/90 mmHg. Results of other systemic examinations were normal. Ocular examination revealed corrected visual acuity of 6/5 in the right eye and 6/9 in the left eye. The anterior and posterior segments of the right eye were normal. The anterior segment of the left eye was normal, but funduscopy revealed hazy media from vitreous haemorrhage and a fusiform dilatation of the 2nd order arteriole with surrounding subretinal haemorrhage (see figure 1). An assessment of ruptured retinal artery macroaneurysm was made. The patient was referred to the physician for control of systemic hypertension, and was instructed to sleep with extra pillows for head elevation to aid settling of the vitreous haemorrhage. Follow-up visits showed clearance of the vitreous haemorrhage, with improvement of vision to 6/6.

DISCUSSION

Retinal artery macroaneurysm is a focal dilatation in the retina arteriole occurring in the 1st to 3rd order of arteriolar

bifurcation.¹ The most common site is the second order of the superotemporal arteriolar bifurcation² (figure 2). This patient's aneurysm was located in the second order of the supero-temporal arteriole.

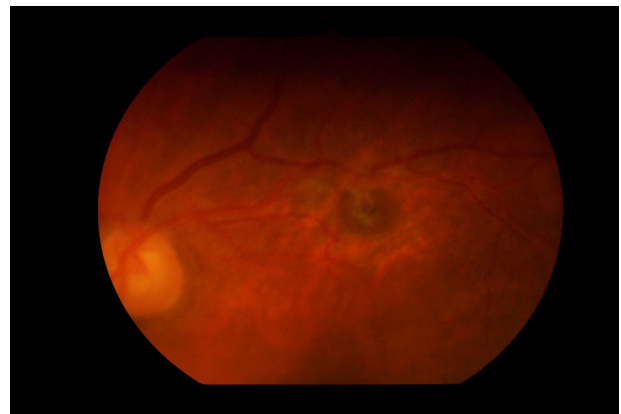


Figure 1. Fundus photo of patient KO with retina artery macroaneurysm at the second order superotemporal arteriole with surrounding subretinal haemorrhage.

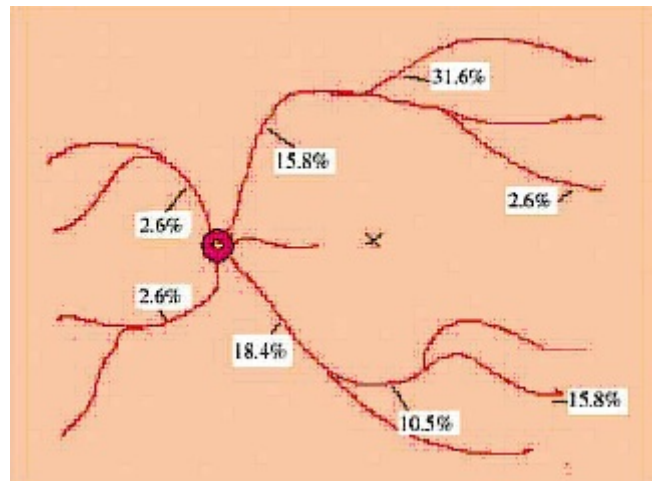


Figure 2. Common sites of retina artery macroaneurysm.²



Figure 3. Fundus fluorescein angiography demonstrating hyperfluorescent macroaneurysm with hypofluorescent subretinal blood blocking choroidal fluorescence.

Predisposing factors: These include systemic hypertension, old age, female gender, arteriosclerosis, lipid abnormalities, angiomatosis retina, Eale's disease, Leber's miliary aneurysms, retinal vascular occlusion (BRAO, BRVO), Coat's disease, hypertensive retinopathy and idiopathic polypoidal choroidal vasculopathy.³ The patient presented was elderly with uncontrolled hypertension.

Clinical presentation: Most cases are asymptomatic and are discovered during a routine eye exam. Sudden blurring of vision occurs when the macula is involved with exudation or when the aneurysm ruptures with associated vitreous or subretinal haemorrhage.^{3,4} Fundus fluorescein angiography is an excellent tool in confirming the diagnosis as shown in figure 3.

Differential diagnoses include retina telangiectasia, diabetic retinopathy, retina angiomas and other causes of vitreous, retina and subretinal haemorrhage.

Treatment: Conservative management and observation with control of systemic diseases such as hypertension and hyperlipidemia is sufficient in most cases.⁵ However, in eyes with persistent vitreous haemorrhage or macular oedema with lipid exudation, laser treatment is advocated⁶ (200-500 micron spot, for 0.2-0.5 sec light burn). Indirect laser delivery around the aneurism is shown to be effective with fewer side effects.⁶ Vitrectomy is recommended for macular haemorrhage and non-clearing vitreous haemorrhage.⁷ Most cases of macroaneurysm will resolve when managed conservatively.⁸

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