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A Flicker before complete darkness- Amaurosis fugax: a case report

Waris A[1], Akhtar N[1], Ansari NN[2]*
1. MS, FICO (UK), FICS (USA), FRCS (Glasg), FRCS (Edin), VR faculty, Institute of Ophthalmology, JNMCH, AMU, Aligarh
2. MS Ophthalmology, Institute of Ophthalmology, JNMCH, AMU, Aligarh

ABSTRACT

We are reporting a case of impending hemi-central retinal artery occlusion in a hypertensive patient. A 50 year old male presented with complaints of multiple episodes of transient painless mono-ocular obscuration of vision (Amaurosis fugax) in right eye for last 2 months. He was a known case of hypertension for last 2 years with poor compliance of medicines. At the time of presentation he had best corrected visual acuity in his right eye of 20/40. On fundus examination yellowish white plaques were visible in superior 1st order branches of central retinal artery along with ocular ischemic syndrome and grade III hypertensive retinopathy. Carotid Doppler and Fluorescein Angiography were performed and ECG, Echocardiography, Complete blood count including Lipid profile were advised. The arterio-venous transit time was delayed along with occluded superior 1st order branches of central retinal artery on Fluorescein Angiography and Carotid Doppler showed Type 1 plaque formation in the posterior wall of left carotid bulb. The blood investigations were suggestive of deranged lipid profile. We prescribed Aspirin/Atorvastatin combination (75/10), Cyclandelate Tablets and Brimonidine Timolol combination eye drop.

Keywords: Hemicentral retinal Artery occlusion, Amaurosis fugax.

*Corresponding Author Email: ansarinada@gmail.com
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INTRODUCTION

A 50 year old well built Indian male presented at the Ophthalmology OPD with complaints of multiple episodes of transient painless mono-ocular obscuration of vision (Amaurosis fugax) in right eye for last 2 months. He was a known hypertensive for last 2 years with poor compliance to medicines. At the time of presentation he had best corrected visual acuity in his right eye of 20/40. His blood pressure was recorded as 170/110 mm of Hg as he had missed his morning dose of anti-hypertensive. A thorough ophthalmic examination was performed. Anterior segment findings were normal with normal pupillary reactions. On fundus examination, yellowish white plaques were visible in the superior 1st order branches of central retinal artery along with ocular ischemic syndrome and grade III hypertensive retinopathy. Carotid Doppler and Fluorescein Angiography were performed and ECG, Echocardiography, Complete blood counts including Lipid profile were advised.

The arterio-venous transit time was delayed along with occluded superior 1st order branches of central retinal artery on Fluorescein Angiography and Carotid Doppler showed Type 1 plaque formation in the posterior wall of left carotid bulb. Echocardiography detected concentric left ventricular hypertrophy with mild Tricuspid regurgitation and Left anterior hemi-block was found on ECG. Blood investigations suggestive of deranged lipid profile with Triglyceride level of 358 mg/dl(<150mg/dl normal), low HDL level(21.9 mg/dl) and high VLDL level of 71.6 mg/dl(<30mg/dl normal). Rest of the blood investigations were within normal range for age.

We did ocular massage with three mirror lens and advised the patient to continue the massage at home, as well. We prescribed Aspirin/Atorvastatin combination (75/10) to control the thrombo-embolic events and reduce the lipid levels; Cyclandelate Tablets as a vasodilator to improve ocular perfusion and Brimonidine-Timolol combination eye drop to lower intraocular pressure to prevent any chances impending central retinal artery occlusion. The patient was referred for expert cardiology consultation. We had tried our best to save the eye, and atleast we were successful in saving the patient's life.

Figure 1: Fundus photograph (Right eye)

Figure 2: Fundus Fluorescein Angiogram (RE)

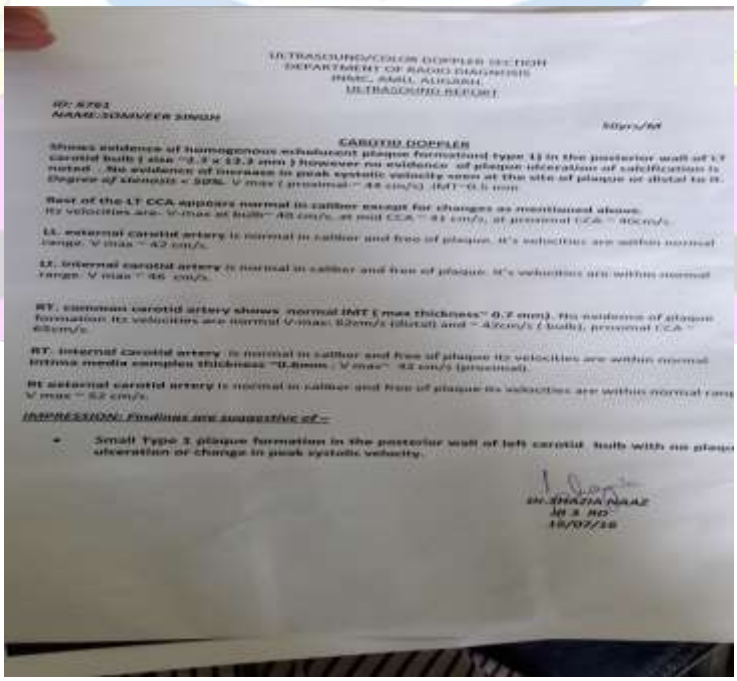

Figure 3: Carotid Doppler

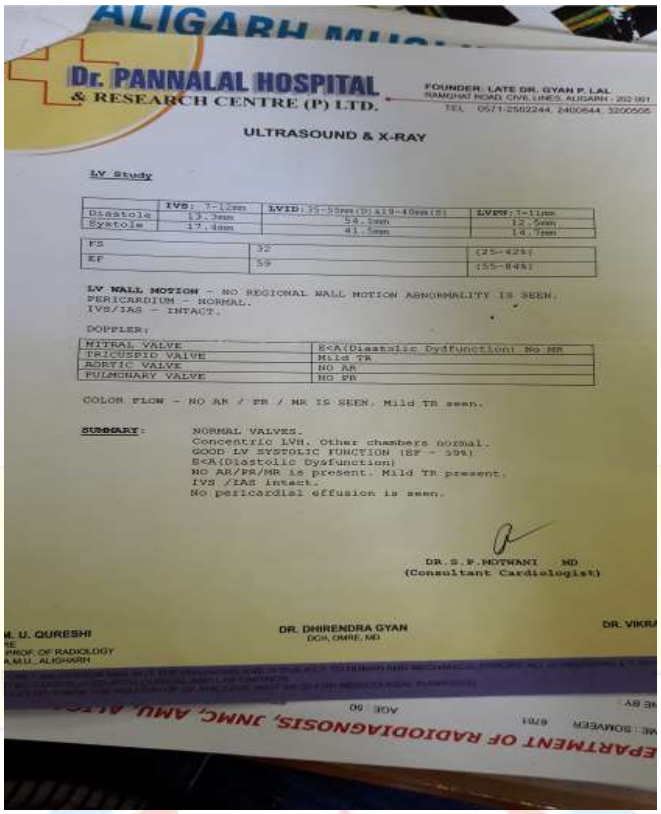

Figure 4: Echocardiogram

RESULTS AND DISCUSSION

'Amaurosis', a Greek word meaning dark or obscure and 'Fugax', a Latin word meaning fleeting. And this entity is transient painless monocular or binocular loss of vision. In 1990, Amaurosis Fugax Study Group divided it into five distinct classes based on etiology : 1. Embolic 2. Hemodynamic 3. Ocular 4. Neurologic and 5. Idiopathic with the Embolic and Hemodynamic being the most common causes.[1] The emboli occlude the retinal vessels transiently, and those consisting of platelet fibrin aggregates are rapidly lysed and passed onward. Atheromatous debris consisting of calcific cholesterol fragments may occlude vessels causing permanent visual field deficits.[2] The repetitive nature of these attacks is best explained by streaming of emboli from carotid atheromata with apparent uniformity of embolic size.[3]

Amaurosis fugax is regarded as warning sign of an impending central retinal artery occlusion or a cerebrovascular accident. The descriptions of fogging, blurring, dimming, or only sectorial vision loss are not uncommon and especially in emergency departments; this possible aetiology of vision problems should be taken into account[4]. The cause of these symptoms is carotid occlusive disease and, in 90% of cases, atherosclerosis.[5]

In our case multiple episodes of transient visual loss is suggestive of a repeated thrombo-embolic phenomena in feeder arteries leading to chronic hypoperfusion which caused the ocular ischemic syndrome with predominantly posterior segment involvement. Uncontrolled

hypertension and hyperlipidemia may be the main villains behind this condition and which could eventually lead to an ocular catastrophe. Nd:YAG embolectomy and intra-arterial thrombolytics have limited success. In case of a stenosis of a higher grade according to the NASCET criteria[6], the appropriate therapy will be a carotid endarterectomy. A timely intervention saved the patient from further sufferings

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