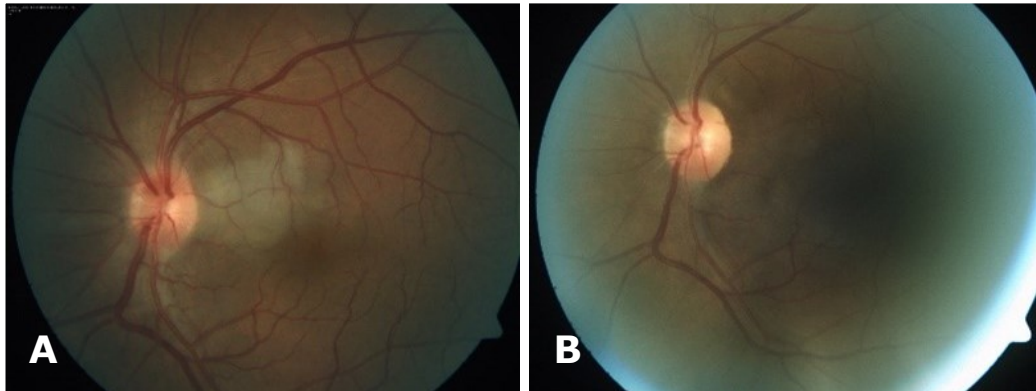


**Chow Chin LOH, Hanizasurana HASHIM, Nor Fariza NGAH**



A 46-year-old gentleman with no previous medical comorbid presented with acute, painless visual reduction in the left eye for 12 hours duration. He was a chronic smoker of 30 cigarettes per day for the past 20 years. He denied associated headache, jaw claudication, nor other connective tissue disease symptoms. On clinical examination, his visual acuity was counting finger at a distance of one foot on his left eye and 6/9 on his right. Findings of anterior segment examinations of both eyes were unremarkable. Fundus examinations are as image shown (**Panel A**). Immediate ocular massage using Goldman 3 mirror, applying self-rebreathing bag and anterior chamber paracentesis were performed. Fundus examinations one month later as shown in (**Panel B**). What is the diagnosis?

**What is diagnosis?**

**Answer:** refer to page 182

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**(Refer to page 172)**

**Answer: Left eye cilioretinal artery occlusion**

Although retinal artery occlusion is relatively infrequent, it is an ocular emergency as it can cause irreversible visual loss unless the retinal circulation is re-established prior to the development of retinal infarction. A typical painless, sudden onset blurring of vision is often the presenting complaint. The average age at presentation of retinal artery occlusion is early to mid-60s. Young patients (especially <45) warrant a systemic workout.

Embolitic and thrombotic causes account for 80% of arterial occlusion disease.<sup>1</sup> Inflammation in or around the vessel wall (e.g. giant cell arteritis-GCA, systemic lupus erythematosus, Wegener granulomatosis, polyarteritis nodosa), vasospasm (e.g. migraine) and systemic hypotension causes the minority of the cases. Emboli can be refractile yellow-white cholesterol (Hollenhorst) plaques, greyish elongated fibrin-platelet aggregates, non-scintillating white calcific particles and rarely vegetation from bacterial endocarditis, cardiac myxomatous material, fat and others.<sup>2</sup>

The hallmark on clinical examination is ischaemic retinal whitening was seen, although there is no embolus could be seen in our case. Further systemic workout revealed hyperlipidaemia and no other source of emboli (such as from heart or carotid artery) was found. With the history of chronic smok-

ing, hyperlipidaemia, and demographic of the patient (middle age male), blood investigation as for antiphospholipid was not performed.

Cilioretinal artery occlusion (which present in 15-50% of population) otherwise usually carry fairly good visual prognosis unless the foveola is completely surrounded by retinal whitening.<sup>2</sup>

The general idea of management is reperfusion of the ischaemic retina either mechanically or via medically to dislodge the emboli (if it is the likely cause). Adoption of supine posture, ocular massage, anterior chamber paracentesis and ocular pressure lowering agent is typically employed to achieve the above mentioned effect. Rebreathing bag is another non-invasive method that often being used, and some also promote use of carbogen (mixture of high oxygen 95%, carbon dioxide 5%) to achieve vasodilatation effect and hope to dislodge the emboli. In this case, we employed ocular massage, applying self-rebreathing bag and also anterior chamber paracentesis methods.

The duration of retinal ischaemia is the most important factor in determining prognosis. However, since it is often difficult to pinpoint the actual initial occlusive event, aggressive management is appropriate, particularly in patients presenting less than 24 hours of symptoms onset.

**REFERENCES**

- 1: Kollarits CR, Lubow M, Hissong SL. Retinal strokes. Incidence of carotid atheromata. JAMA 1972; 222:1273-5.
- 2: Bowling B. Kanski's Clinical Ophthalmology- A systematic approach. Chapter 13 Retinal Vascular Disease, 8<sup>th</sup> Edition, Elsevier, 2016: 549-56.