

## Clinical Image

# Symmetrical Hollenhorst Emboli with Branch Retinal Artery Occlusion

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A 50 year old man with a history of being known case of diabetes mellitus since 07 years presented to the ophthalmic emergency with sudden, profound diminution of vision in right eye of 05 days duration. His systemic parameters were normal and ocular examination revealed a best corrected visual acuity (BCVA) of 20/400 in right eye and 20/30 in left eye. Patient had normal reacting pupil in both eyes with early cortical cataract opacities in both eyes (Right>Left). Fundus examination of right eye revealed normal optic disc with two symmetrical yellowish, refractile cholesterol emboli (Hollenhorst plaques) in supero-tempora and inferotemporal branch of retinal artery (Figure 1A & 1B, *blue arrow*). Emboli in supero-temporal retinal had lead to obstruction of artery with pale retina in its distribution and superior part of macula (Figure 1A & 1B, *yellow arrow*). Treatment with Tab acetazolamide 500mg stat, ocular massage along with paracentesis was done with no improvement in vision. Immediate cardiology consultation obtained which revealed cardiac emboli on trans-esophageal echocardiography but normal carotid Doppler. Patient was treated with anticoagulant, antiplatelet therapy with no evidence of adverse cardiac or neurological event on follow-up for next 02 months with some improvement in BCVA to 20/200. It's a rare presentation of symmetrical retinal artery emboli involving superior and inferior retinal artery with branch retinal artery occlusion.

## Discussion

Branch retinal artery occlusion (BRAO) is a common vascular occlusive disorder of the eye [1]. Visualisation of emboli on fundus imaging is variable as reported to be seen in 14.5% eyes with RAO at least once during multiple visits and in 69% cases, the plaque was



Figure 1:

not successively visible at all of the visits [2]. A number of therapies have been tried with variable results in the treatment of BRAO. These include carbogen inhalation, acetazolamide infusion, ocular massage, and paracentesis, as well as various vasodilators as done in our patient [3,4]. Retinal artery occlusion for longer than about 240min results in irreversible, massive retinal damage [5]. In our case, the patient visited us 05 days after onset of profound visual loss, which resulted in sub-optimal recovery of vision but further systemic mortality/morbidity was prevented with timely management in form of cardiology consult and anti-coagulation therapy. In this case, we have documented symmetrical hollenhorst emboli leading to BRAO; a rare phenomenon presenting late with sub-optimal recovery of vision.

## References

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