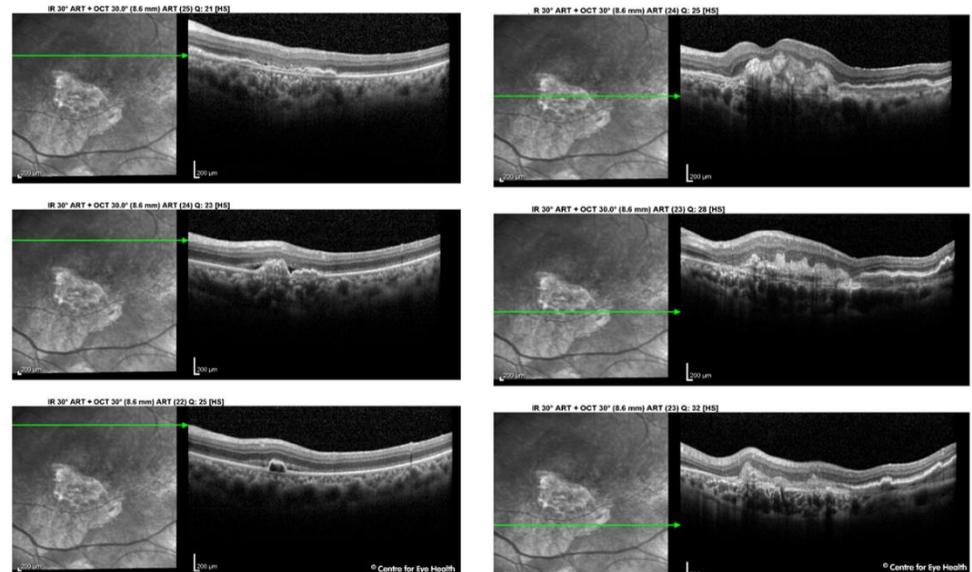
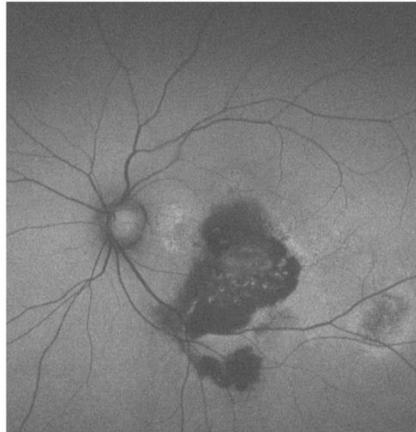




CFEH Facebook Case #80

A 60 year old Asian male presents for examination. He reports a long-standing history of poor vision in the left eye, with vision being lost suddenly upon awakening 15 years ago previously. He has never had any treatment for the blurred vision despite seeing several ophthalmologists over the years. General health is unremarkable. There are a number of medium and large sized drusen within the right macula. What is the cause of his reduced vision?



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ANSWER

This patient polypoidal choroidal vasculopathy in the left eye (PCV)

The retinal photo shows significant subretinal fibrosis temporal to the optic disc and involving the centre of the macula. OCT analysis shows loss of the outer retinal layers in this area and a serous sub-RPE elevation nasally with several smaller PEDs temporally. Superior to the macula there are several highly peaked PEDs, some of which may be haemorrhagic in nature, and there is sub-retinal fluid present, suggesting an active presentation of the disease. The first OCT image has a “double layer sign” – a highly reflective layer underneath the RPE. The OCT underneath this indicates the presence of a polyp.

The incidence and demographic features of PCV varies among different ethnic groups. The incidence of PCV is high in African Americans, moderately high in Asians, and relatively low in Caucasians (Sho, Takahashi et al. 2003). In African Americans, PCV affects middle-aged women more frequently and the lesions are usually bilateral - occurring in the peripapillary region (Yannuzzi, Wong et al. 1999; Ciardella, Donsoff et al. 2004).

In Asian patients, PCV tends to be more common in males as a unilateral condition affecting the macula (Kwok, Lai et al. 2002; Anantharaman, Ramkumar et al. 2010). In Caucasians, the disease is more commonly a bilateral condition with peripapillary lesions and no (Yannuzzi, Wong et al. 1999) or female (Yannuzzi, Ciardella et al. 1997) gender predilection. It presents earlier in life than neovascular AMD. In Asian populations it has been found that between 20% and 50% of macular exudation and haemorrhage are found to have PCV.

On fundus imaging, neovascular AMD and PCV are impossible to differentiate. OCT gives more insight with PCV complexes causing focal highly peaked, u-shaped elevations of the RPE and an appearance typical of polyps. Associated serous retinal detachments are usually seen, as in this case. Compared with neovascular AMD, PCV usually shows more serous retinal detachments and less intraretinal oedema. Characteristic of this condition however is the “double-layer sign” on OCT such as seen in OCT image 1.

For more information on PCV and the OCT presentations of this disease, please join our November 14th webinar on the topic “Fundus changes in Choroidal Disease”. For further information, please contact learningforvision@cfh.com.au.