

CFEH Facebook Case #12

A 48 year old Asian male was referred to CFEH for further assessment of his maculae due to irregularities noted by his optometrist. His ocular history included traumatic injury to his right eye during childhood and reduced vision in this eye since then. He had not noticed any recent changes to his vision. His medical and family histories were unremarkable.

Visual acuities were 6/60 in the right eye with eccentric fixation and 6/7.5 in the left eye with a mild hyperopic prescription. Fundus photos, fundus autofluorescence and OCT images for right eye are below. For simplicity the left eye images are not included, however they show a similar appearance.

What is your tentative diagnosis for this patient?

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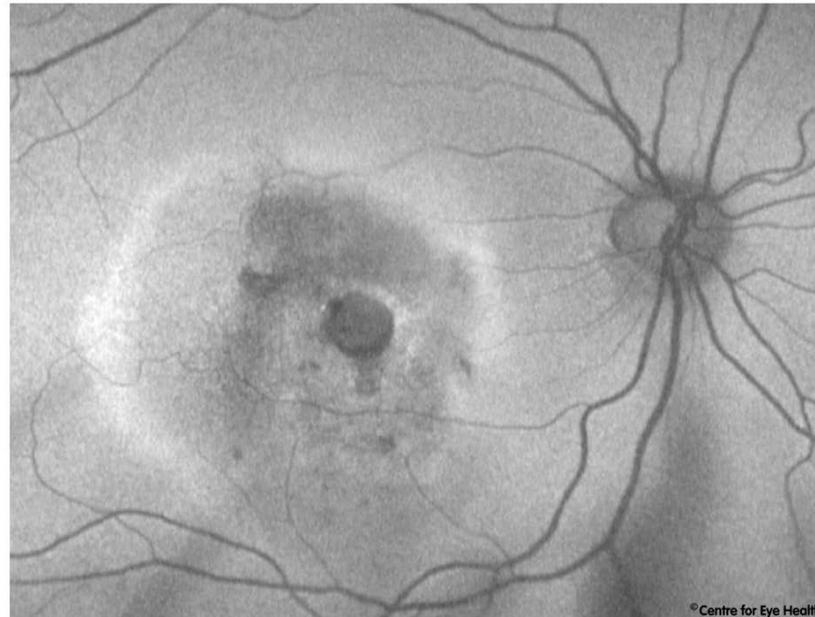
Centre for Eye Health



Optometry

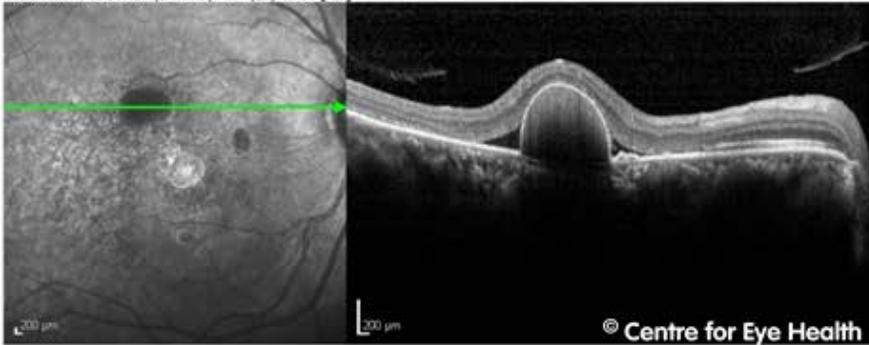
NEW SOUTH WALES

AUSTRALIAN CAPITAL TERRITORY

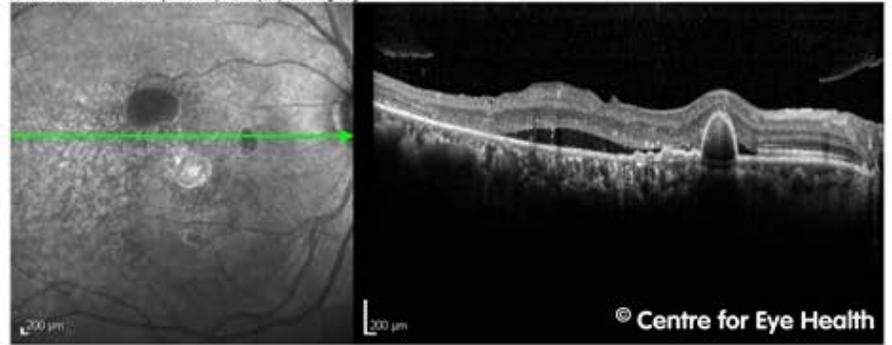




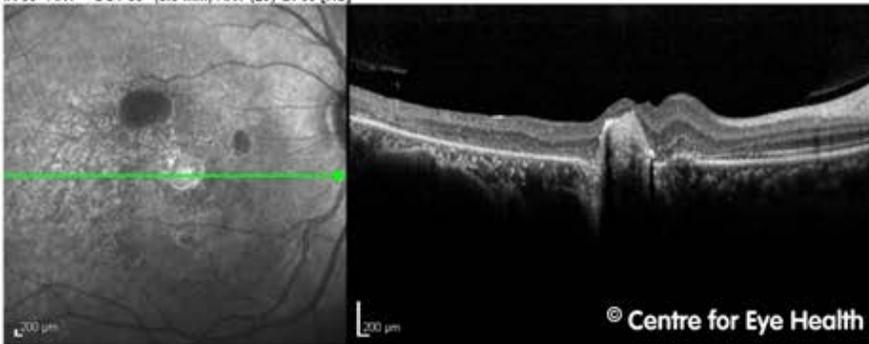
IR 30° ART + OCT 30° (8.3 mm) ART (25) Q: 30 [HS]



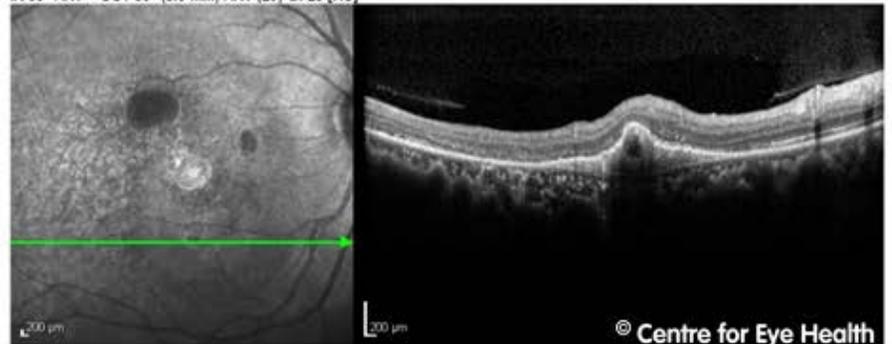
IR 30° ART + OCT 30° (8.3 mm) ART (26) Q: 35 [HS]



IR 30° ART + OCT 30° (8.3 mm) ART (25) Q: 30 [HS]



IR 30° ART + OCT 30° (8.3 mm) ART (25) Q: 28 [HS]



ANSWER

Polypoidal choroidal vasculopathy.

Note that the round/yellow white lesion on the infero-temporal macula is a scar due to previous trauma to the right eye.

Polypoidal choroidal vasculopathy (PCV) is a chronic vascular abnormality of choroidal blood vessels with persistent serous leakage and recurrent bleeding. It is characterised by branching choroidal vessels ending in polyp-like aneurysmal bulges. These lesions usually appear in the macula and/or near the optic disc. There are often associated pigment epithelial detachments (PEDs).

PCV has a similar clinical appearance to neovascular AMD, however PCV is not associated with drusen and tends to progress at a slower rate than neovascular AMD. The usual age of onset is 50-65 years with the highest incidence seen in African Americans, followed by Asians and with a low incidence in Caucasians.

A definitive diagnosis of PCV requires indocyanine green angiography. Fundus autofluorescence imaging provides a non-invasive aid in identifying the sites of polypoidal lesions, which appear hypo-autofluorescent. OCT can help in detection of associated abnormalities such as PEDs. Multiple haemorrhagic PEDs were observed with OCT in this case.

Polypoidal lesions can resolve spontaneously and be replaced by subretinal fibrosis, RPE hyperplasia and/or atrophy. Lesions may also lead to choroidal neovascularisation.

Generally, a conservative approach to treatment is recommended unless there is persistent or progressive exudation that is macula-threatening. Treatment options include thermal laser photocoagulation (limited use in sub-foveal lesions), photodynamic therapy and anti VEGF agents to treat leaking aneurysms or polypoidal components within the vascular lesion. Most recently, a combination of PDT and anti-VEGF agents has been favoured due to a possible synergistic effect.