

Sir,  
**Polypoidal choroidal vasculopathy causing massive suprachoroidal haemorrhage**

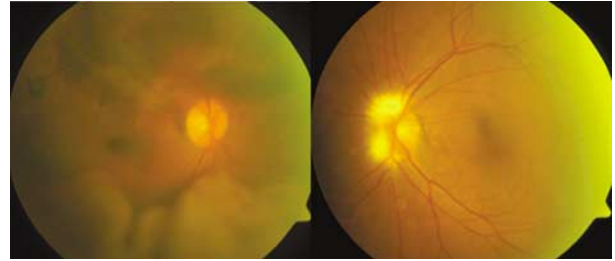
Suprachoroidal haemorrhage usually occurs during intraocular surgery and may sometimes occur spontaneously. However, suprachoroidal haemorrhage secondary to polypoidal choroidal vasculopathy (PCV) has not previously been described. We present a patient with angiographically verified PCV who developed massive suprachoroidal haemorrhage with secondary angle closure glaucoma.

*Case report*

A 61-year-old female experienced painless loss of vision in her right eye over 1 week. Visual acuity was hand motion OD and 20/25 OS, intraocular pressures (IOP) were 17 mmHg OD and 20 mmHg OS, and both anterior chambers were deep on gonioscopy. There was extensive exudative retinal detachment in the right eye, with subretinal haemorrhages and hard exudates (Figure 1). Confocal indocyanine green scanning laser ophthalmoscopy revealed pulsatile choroidal polyps superior to the fovea (Figure 2). The patient was referred to the medical retina service for focal laser photocoagulation.

Five days later, before laser treatment could be initiated, she experienced severe right-sided headache while resting. The right anterior chamber was very shallow and IOP was 67 mmHg. Ultrasound B-scan revealed large, extensive 'kissing' choroidals (Figure 3). Suprachoroidal haemorrhage with secondary angle closure was diagnosed and she was treated with intravenous acetazolamide, topical timolol 0.5%, brimonidine, lantanoprost, and pilocarpine 2%. Although the IOP was initially controlled after a laser peripheral iridotomy performed to reduce coexistent pupillary block, it continued to fluctuate and a subsequent laser iridoplasty was required to control a pressure spike. After discussing the treatment options with the patient, in view of the poor visual prognosis, she opted for conservative management. She was maintained on topical timolol, brimonidine, and lantanoprost with IOP of 14 mmHg OU.

Two weeks later, the patient presented with exacerbation of the suprachoroidal haemorrhage. There was no light perception OD, IOP was 70 mmHg, and the anterior chamber was very shallow with iris bombe and gross hyphema. She was managed conservatively with anti-glaucoma medications. At the last visit, she was asymptomatic and the eye had become pthisical.



**Figure 1** Colour fundus photographs of both the eyes. In the right eye, there are extensive exudative retinal detachments. The left eye shows myelinated nerve fibres at the disc but no drusen or evidence of age-related macular degeneration.



**Figure 2** Confocal indocyanine green scanning laser ophthalmoscopy showing solitary, pulsatile choroidal polyps supero-nasal to the foveal centre.



**Figure 3** Ultrasound B scan of the right eye showing extensive 'kissing' suprachoroidal haemorrhages.

## Comment

Many cases of suprachoroidal haemorrhage previously described had underlying age-related macular degeneration and disciform scars.<sup>1–3</sup> Although PCV may cause subretinal haemorrhage, the authors are unaware of any previous reports on PCV causing massive and rapid suprachoroidal haemorrhage leading to secondary angle closure glaucoma. This may be because the diagnosis of PCV has increased in recent years with the advent of ICG angiography.

Spontaneous suprachoroidal haemorrhage<sup>1–5</sup> or haemorrhagic retinal detachment,<sup>6</sup> if sufficiently anterior and large, may cause forward displacement of the lens–iris diaphragm, occluding the angles and causing secondary angle closure glaucoma. This may occur in patients with or without systemic anticoagulation or associated bleeding diathesis. It is believed that shearing forces acting on blood vessels as they enter the suprachoroidal space rupture the vessels and cause suprachoroidal haemorrhage.<sup>3</sup> Systemic risk factors such as advanced age, hypertension, and arteriosclerosis increase fragility of these vessels and hence their susceptibility to mechanical shearing forces, such as a valsalva manoeuvre. Our patient did not have any known predisposing factors for a suprachoroidal bleed — she was not taking anticoagulants, and was not straining or coughing at the time the massive suprachoroidal haemorrhage occurred.

The visual prognosis for patients with angle closure glaucoma secondary to suprachoroidal haemorrhage is guarded despite both surgical and medical therapy.<sup>1–4,7</sup> Our patient, who presented in an advanced stage of visual loss, had a recurrent suprachoroidal bleed but was eventually free of pain and was therefore managed conservatively.

Our report illustrates that PCV may bleed significantly, resulting in suprachoroidal haemorrhage, which can cause secondary angle closure. Management is difficult with poor visual prognosis. Therefore, it is important for clinicians managing patients with PCV to be aware that suprachoroidal haemorrhage is a potentially vision-threatening outcome of this condition.

## Acknowledgements

The authors have not received any financial support in the conduct of this research and do not have any financial or proprietary interest in the subject discussed.

## References

- 1 Alexandrakis G, Chaudhry NA, Liggett PE, Weitzman M. Spontaneous suprachoroidal hemorrhage in age-related

- macular degeneration presenting as angle-closure glaucoma. *Retina* 1998; **18**: 485–486.
- 2 Knox FA, Johnston PB. Spontaneous suprachoroidal haemorrhage in a patient with age-related macular degeneration on excessive anticoagulation therapy. *Eye* 2002; **16**: 669–670.
- 3 Yang SS, Fu AD, McDonald HR, Johnson RN, Ai E, Jumper JM. Massive spontaneous choroidal hemorrhage. *Retina* 2003; **23**: 139–144.
- 4 Chorich LJ, Derick RJ, Chambers RB, Cahill KV, Quartetti EJ, Fry JA *et al.* Hemorrhagic ocular complications associated with the use of systemic thrombolytic agents. *Ophthalmology* 1998; **105**: 428–431.
- 5 Shaikh A, Parulekar M, James B. Acute suprachoroidal haemorrhage with acute angle closure glaucoma as a presenting sign of chronic myelomonocytic leukemia. *Eye* 2002; **16**: 651–653.
- 6 Chen SN, Ho CL, Ho JD, Guo YH, Chen TL, Chen PF. Acute angle-closure glaucoma resulting from spontaneous haemorrhagic retinal detachment in age-related macular degeneration: case reports and literature review. *Jpn J Ophthalmol* 2001; **45**: 270–275.
- 7 Scott IU, Flynn Jr HW, Schiffman J, Smiddy WE, Murray TG, Ehli F. Visual acuity outcomes among patients with appositional suprachoroidal hemorrhage. *Ophthalmology* 1997; **104**: 2039–2046.

CSH Tan, H-T Wong, B-A Lim, OK Hee and TH Lim

Department of Ophthalmology, The Eye Institute at Tan Tock Seng Hospital, National Healthcare Group, Singapore, Singapore

Correspondence: CSH Tan,  
Tel: + 65 63577726;  
Fax: + 65 63577718.  
E-mail: Colintan\_eye@yahoo.com.sg

*Eye* (2007) **21**, 132–133. doi:10.1038/sj.eye.6702455;  
published online 9 June 2006

## Sir, Intrastromal corneal limbal epithelial implantation cyst

Corneal cysts are uncommon. We report a case of an intrastromal corneal cyst following squint surgery and present a simple surgical technique used to successfully manage it.

## Case report

A 10-year-old girl presented with a slowly progressive painless left corneal–limbal mass. Her visual acuity was 6/6 in both eyes. In the left eye, temporally there was a whitish cystic swelling extending from the limbus to the para-central cornea, in the mid-stromal plane. When the patient was standing, the lesion simulated the