The pathogenesis of thrombus formation in Behçet's disease is poorly understood but endothelial injury leading to thrombus formation secondary to vasculitis is regarded as the initiating event. The effects of thrombophilic parameters, such as protein C, protein S, antithrombin deficiencies, antiphospholipid antibodies, factor V Leiden, and anticardiolipin antibodies have been studied and published reports have conflicting conclusions⁶ with no specific factor having a high correlation with thrombosis.

Systemic vascular complications occur in approximately 25–48%⁷ of cases and are the predominant cause of mortality. Vascular occlusion with posterior segment inflammation must alert the practitioner to the diagnosis of BD. These patients, frequently presenting to ophthalmologists, should be questioned specifically about abdominal symptoms and further investigation undertaken appropriately. BCS is a life threatening complication and clinical outcome can be improved if diagnosed early.

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Authors have no commercial or proprietary interest in this article

Eye (2006) **20**, 1097–1099. doi:10.1038/sj.eye.6702133; published online 21 October 2005

Sir, Subinternal limiting membrane and subhyaloid haemorrhage in Terson syndrome: the macular 'double ring' sign

Dome-shaped posterior pole haemorrhages have been described in Terson syndrome (TS).^{1,2} However, the exact location of these posterior pole haemorrhages have been unclear.³ Friedman *et al*² showed that these haemorrhages are located beneath the internal limiting membrane (ILM) of the retina. The purpose of this report is to highlight the concurrent occurrence of a sub-ILM and subposterior hyaloid haemorrhage in TS producing a macular 'double ring' sign. We are unaware of any previous reports describing this sign and could find no reference to it in a computerized search utilizing the PubMed. Nd:YAG laser membranotomy of the ILM was successful in draining the sub-ILM haemorrhage and resorting the vision.

Case report

A 46-year-old female underwent endovascular coiling following a subarachnoid haemorrhage caused by a ruptured anterior communicating artery aneurysm. Following this, she complained of decreased vision in her left eye (LE). On ophthalmic evaluation, visual acuities were 6/6 right eye (RE) and counting fingers LE. Intraocular pressures and anterior segment examination were unremarkable. Fundus examination of the RE showed multiple scattered superficial and deep retinal haemorrhages involving the posterior pole (Figure 1a). The macula was normal. The LE showed a large dome-shaped macular sub-ILM haemorrhage characterized by a glistening light reflex and fine striae on the surface of the haemorrhage and a small dome-shaped subhyaloid haemorrhage located anterior and inferotemporal to the sub-ILM haemorrhage. These two haemorrhages caused a macular 'double ring' with the 'inner ring' presumably formed by the detached ILM and the 'outer ring' by the detached posterior hyaloid (Figure 1b).

Figure 1 (a) The right fundus showing scattered superficial and deep retinal haemorrhages in the posterior pole. (b) The left fundus showing a dome-shaped sub-ILM haemorrhage (white asterisk) and a subhyaloid haemorrhage located anterior and inferotemporal to the sub-ILM hemorrhage (orange asterisk). Note the 'double ring' sign with the 'inner ring' caused by the sub-ILM bleed (blue arrows) and the 'outer ring' by the subhyaloid bleed (black arrows). (c) At 1 week postlaser photograph showing drainage of the sub-ILM blood into the vitreous (black arrows). Note the hazy view caused by the vitreous haemorrhage. (d) At 2 weeks postlaser photograph showing almost complete resolution of the sub-ILM haemorrhage. Note the subhyaloid pocket of blood remains unchanged (black arrow).

Nd:YAG laser membranotomy of the ILM was performed with an argon laser, with the laser beam aimed at the lower most point of the sub-ILM haemorrhage, using a fundus contact lens and a pulse power starting at 2.0 mJ. At a power of 5.5 mJ, two small openings were created in the ILM. No immediate drainage of the blood was noted. At 1 week follow-up, there was evidence of the sub-ILM blood draining into the vitreous cavity (Figure 1c). At 2 weeks following the laser treatment, the vision improved from counting fingers to 6/12 with almost complete resolution of the sub-ILM haemorrhage. The small subhyaloid haemorrhage located inferotemporal to the macula was undrained (Figure 1d).

Comment

To our knowledge, this is the first report to document a sub-ILM and a subhyaloid haemorrhage occurring concurrently in TS, producing a macular 'double ring' sign. Literature is confusing regarding the exact anatomic location of dome-shaped haemorrhages in TS. Kuhn *et al*¹ reported a 39% incidence of macular haemorrhages in TS and reported that blood accumulates beneath the ILM.

Morris *et al*⁴ documented histologically the presence of a haemorrhage located between the 'nerve fiber layer and the ILM' but erroneously referred to it as 'preretinal haemorrhage'. Recently, Friedman *et al*² provided histological evidence that haemorrhage can be located posterior to the ILM in TS.

The most common site for a premacular haemorrhage is at the posterior pole, where the premacular bursa provides a potential space. Moreover, the ILM in the perimacular area is thinner with no attachment plaques between the ILM and the rest of the retina.⁵ A sudden intraocular haemorrhage in the setting of raised intracranial pressure can result in haemodissection of the ILM and the posterior hyaloid producing the macular 'double ring' (with the 'inner ring' caused by the sub-ILM haemorrhage and the 'outer ring' by the subhyaloid bleed). These rings may represent the demarcation line between the detached and the adherent ILM and posterior hyaloid, respectively.

In theory, blood could initially enter one compartment and percolate through to the other, or enter both compartments (sub-ILM and subhyaloid) simultaneously. We believe this case demonstrates that the latter explanation is more likely, as the subhyaloid

haemorrhage remained unchanged following drainage of the sub-ILM haemorrhage. A macular 'double ring' sign can be a clinical indicator of a sub-ILM and subhyaloid haemorrhage occurring concurrently.

Acknowledgements

The authors acknowledge the help of Phil Rooney in preparing the montage.

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Eye (2006) **20**, 1099–1101. doi:10.1038/sj.eye.6702134;
published online 14 October 2005

Sir, Bronchial carcinoid tumour with choroidal metastasis masquerading as ocular tuberculosis

Ocular tuberculosis can have variable clinical manifestations and occasionally masquerade as an intraocular or epibulbar tumour.¹ Diagnosing ocular tuberculosis is difficult and relies on clinical findings, biopsy of the lesion, or polymerase chain reaction of vitreous or aqueous aspirate and presence of systemic disease with a high degree of suspicion in the developing countries.²

We present an unusual case of a bronchial carcinoid tumour, with choroidal metastasis masquerading as ocular tuberculosis.

Case report

A 14-year-old boy was referred with a diagnosis of bilateral choroidal tuberculoma with serous retinal detachment (RD). The child had diminution of vision in both eyes since 4 weeks from presentation, with difficulty in breathing. Past records documented BCVA of 5/200 OD and 20/50 OS with bilateral choroidal mass and serous RD. Based on a chest X-ray finding of mediastinal lymphadenopathy, right lower lobe pneumonitis, and a positive Mantoux reaction (18 × 15 mm), the child was started on antitubercular therapy (isoniazid, rifampicin, ethambutol, and pyrazinamide). As there was deterioration in the systemic and ocular symptoms and signs, the child was referred to us.

The child had a BCVA of light perception OD and 20/50 OS. There was bullous serous RD in the right eye with a large orangish choroidal mass in the superior quadrant, and a choroidal mass in the infero-temporal quadrant in the left eye with surrounding serous RD. (Figure 1a, b). Ocular ultrasonography revealed a solid lesion in both the eyes with medium internal reflectivity without choroidal excavation or orbital shadowing (Figure 1c), and fluorescein angiography demonstrated early hyperfluorescence with late staining (Figure 1d). The size of the choroidal mass was 16 × 12 × 5 mm OD and 12 × 8 × 4 mm OS. A contrast-enhanced CT scan of the chest and abdomen revealed mediastinal lymphadenopathy with a soft tissue nodule in the bronchus intermedius, collapse of the right lower lobe and multiple hypodense lesions in the liver. (Figure 2) Ultrasound-guided FNAB of the liver nodule showed cells consistent with carcinoid tumour. Although there was no history of facial flushing and diarrhoea, urinary 5-hydroxyindoleacetic acid levels were elevated. The child underwent bronchoscopy-guided tumour resection, and was started on a chemotherapy of 5-Fluorouracil and Streptozocin, with transpupillary thermotherapy (TTT) in both eyes. At the 5-month follow-up, there was a decrease in the tumour