

include rash, fever, lymphadenopathy, or vasculitis, which usually developed within 3–7 weeks of starting therapy.<sup>2</sup>

Isoniazid is metabolized in the liver mainly by acetylation and dehydrazination. This *N*-acetylhydrazine metabolite is believed to be responsible for the hepatotoxic effects of isoniazid. The rate of acetylation is genetically determined, being highest in Orientals and lowest in Caucasians. A previous study in Singapore reported 68% fast acetylators in a study sample of 68 Chinese subjects. Fast acetylation leads to accumulation of the acetylated metabolite with an increased risk of toxicity and side effects.<sup>3</sup>

In our TB-endemic Singapore population, a combined interpretation of clinical signs, TST, and IGRA is recommended to diagnose active TB.<sup>4</sup> Our patient did not have evidence to support active TB. He was not on any other medications. Other drugs reported to cause choroidal effusions include topiramate,<sup>5</sup> topical timolol, and dorzolamide.<sup>6</sup>

The sequential onset of bilateral choroidal effusions after starting isoniazid, with resolution upon discontinuation suggests a hypersensitivity response to isoniazid.

We acknowledge that to confirm drug causality, positive *in vivo* re-challenge is helpful. However, the temporal sequence and lack of other possible causes are highly supportive. A fast acetylator might also further strengthen our case. Unfortunately, we were not able to perform this test.

Physicians should consider the new onset of bilateral painful red eyes after starting isoniazid as a possible manifestation of drug hypersensitivity and prompt ophthalmological referral is encouraged for further evaluation.

#### Conflict of interest

The authors declare no conflict of interest.

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#### Sir, 'Steroid treatment card' compliance is suboptimal but can be improved

Patients attending a specialist uveitis clinic are commonly prescribed systemic corticosteroids.<sup>1</sup> The United Kingdom Medicines and Healthcare Regulatory Agency guidelines state that all patients prescribed systemic corticosteroids for >3 weeks should receive a 'Steroid Treatment Card',<sup>2,3</sup> which gives guidance on minimising risk and provides details of prescriber, drug, dosage, and treatment duration. We have audited current compliance levels. All patients prescribed  $\geq 5$  mg daily oral prednisolone attending a specialist adult uveitis clinic (Royal Liverpool University Hospital) during a 1-month period (April 2009) were questioned on steroid card use. All patients were told about the benefits of the card. Compliance with card use was reaudited among those reattending clinic within 2 months.

During the initial 1-month audit period, 243 patients attended the clinic. Of these, 73 (34 male, 39 female) met the above criteria. At the initial visit, 30 subjects (41%) were compliant with steroid card use (ie were carrying a steroid card). For patients prescribed between 5 and 19 mg/day, 43% were compliant ( $n = 54$ ); for 20–39 mg/day, 33% were compliant ( $n = 9$ ); and for  $\geq 40$  mg/day, 40% were compliant ( $n = 10$ ). Of the steroid cards seen, 21 (70%) recorded an up-to-date dosage. Of the original cohort, 44 subjects (60.3%) re-attended the clinic during the subsequent 2-month study period. Of these, 27 (61%) were carrying a steroid card: an improvement in compliance. Of the steroid cards seen, 22 (81%) recorded an up-to-date dosage.

Our work shows that current steroid card compliance is suboptimal, but can be improved. Ophthalmologists prescribing long-term steroids should emphasise the importance of the card.

#### Conflict of interest

The authors declare no conflict of interest.

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Sir,  
**Retinal vasculitis as an early sign of bacterial post-operative endophthalmitis**

Acute post-operative bacterial endophthalmitis is one of the most devastating complications of cataract surgery. Typical symptoms and signs include pain, reduced visual acuity, pan-uveitis, and hypopyon formation. This case and the images illustrate a rarely seen presentation of post-operative endophthalmitis characterised by vascular sheathing and retinal infiltrates.

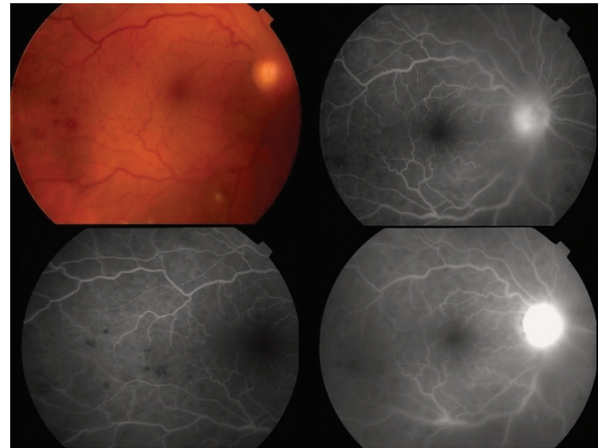
#### Case report

A 72-year-old woman underwent right phacoemulsification with in-the-bag lens implantation. Surgery was uncomplicated; she received subconjunctival gentamicin and dexamethasone at the end of the procedure and G Tobradex QDS post-operatively. The patient was in reasonable general health with a history of hypertension but no symptoms suggestive of connective tissue disease.

Four days later the patient noticed increased floaters in her right eye. Two days after this she attended the clinic as her vision had decreased. Visual acuity was 6/24 correcting to 6/12<sup>-3</sup>. There was mild limbal injection and a moderate (+3) anterior uveitis with no hypopyon. There was moderate vitreous (+2) activity with 'snowballs' inferiorly. The optic disc appeared swollen and there were multiple intra-retinal haemorrhages, many of which had a central white core and resembled Roth's spots (Figure 1). Vascular sheathing was also noted.

Fluorescein angiography revealed disc leakage with associated staining and late leakage of the vessel walls (Figure 1). The left eye appeared normal.

A diagnosis of post-operative endophthalmitis was considered most likely. Following vitreous and aqueous biopsy, the patient received 1 mg intravitreal vancomycin, 0.4 mg amikacin, and 4 mg subconjunctival dexamethasone. She was commenced on topical dexamethasone and cycloplegics, 40 mg prednisolone, and ciprofloxacin orally. The following day, the appearance conformed to a more typical post-operative endophthalmitis with marked vitritis. Vitreous biopsy subsequently revealed Gram-positive cocci on microscopy and culture grew *Staphylococcus*



**Figure 1** Colour photography shows scattered haemorrhages and Roth's spots. Fluorescein angiography demonstrates disc leakage and staining and leakage of vessel walls.

epidermidis sensitive to amikacin and vancomycin. Investigations including CXR, FBC, ESR, CRP, ACE, autoimmune and vasculitic markers were normal. On discharge, her visual acuity was 6/9<sup>-2</sup> corrected and the fundal appearances had improved with resolution of the retinal haemorrhages and infiltrates.

#### Comment

Unlike the vast majority of cases of post-operative endophthalmitis, the presentation in this patient is unusual, with the main symptom being increased floaters and clinical signs of retinal infiltrates, mild vitritis, and vascular sheathing.

There is a paucity of literature referring to posterior segment appearances in bacterial endophthalmitis.<sup>1–3</sup> Interestingly, animal models have shown that retinal periphlebitis often develops early in stimulated endophthalmitis, with histology providing evidence of inflammatory cell infiltration of retinal vasculature.<sup>4</sup>

In summary, post-operative bacterial endophthalmitis can present with atypical symptoms and unusual clinical appearance. Although these cases are rare, the authors believe it is advisable to treat with early intravitreal antibiotics rather than wait for evolution of clinical signs, considering the catastrophic outcome on visual prognosis in this condition.<sup>5</sup>

#### Conflict of interest

The authors declare no conflict of interest.

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