fibrinogen levels, and cigarette usage.[7] The mechanism of action is thought to involve the reduced perfusion pressure in the posterior ciliary arteries supplying the optic disc, leading to ischaemia. Local factors such as structural predisposition to ischaemic damage by the presence of an optic disc with a small physiological cup (cup-disc ratio of less than 0.1), the classic 'disc at risk' (Burdle[8]), are thought to play an important role. Systemic circulatory factors are also thought to be involved in the development of critical ischaemia to the ONH. Systemic arterial or nocturnal hypotension may be a possible aetiology, especially in the context of a structurally crowded ONH. As with other PDE5 inhibitors, tadalafil is known to have systemic vasodilatory properties that may result in transient decreases in blood pressure,[9] which may be sufficient to serve as a trigger for ischaemia in the anatomically predisposed optic disc. As it is unknown whether the patient developed an erection or went on to participate in sexual activity, a steal phenomenon cannot be postulated as the cause of the hypotensive event to his optic nerve. By way of increasing local levels of NO, a potent vasodilator, disrupted auto regulation of microvasculature may also compromise ONH perfusion. Another potential mechanism is drug-induced potentiation of NO resulting in a toxic optic neuropathy.[1]

The association of tadalafil and NAION in a patient with no known systemic or local risk factors, combined with the lower dose of the drug, its greater selectivity for PDE5 and longer duration of action, may suggest that it is associated with a higher risk of the development of ONH ischaemia, compared to its predecessor. Although it is not possible to be confident about a causal association between tadalafil and NAION, this case, combined with previous reports of the condition in the context of PDE5 inhibitor usage, is strongly suggestive of one. The development of an animal model for NAION would provide an experimental paradigm in which to test the relationship between this poorly characterised condition and PDE5 inhibitors.

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Eye (2005) **19,** 715–717. doi:10.1038/sj.eye.6701614
Published online 3 September 2004

Sir,

Optical coherence tomography-assisted localization of retained intraocular foreign body

Retained intraocular foreign bodies (RIOFB) represent a subset of ocular injuries that present complex surgical challenges to remove them successfully while attempting to preserve vision as well as the ocular architecture.[1]

Imaging modalities available to detect RIOFB include plain film X-rays, contact B-scan ultrasonography, CT scan, and MRI scanning.[2] This is the first report to the best of our knowledge describing the optical coherence tomography (OCT) findings for assessment of the depth of RIOFB on or within retina and associated macular status that may prognosticate the management.

Case report

A 30-year-old male presented with a history of injury to the right eye while hammering metal on metal 20 days back followed by a diminution of vision. On examination, he had a self-sealed corneal perforation at the 6 o'clock limbal border. Anterior chamber depth was normal, lens was clear and no relative afferent pupillary defect was present. After full dilation, fundus evaluation revealed a clear media with no vitreous haemorrhage or retinal detachment. A yellowish white glistening foreign body 2 mm × 5 mm was visualized about four disc diameters superotemporal to the macula embedded on the retina, with surrounding rusty pigmentation (Figure 1a). The best-corrected visual acuity in the affected eye was 20/30, applanation intraocular pressure was 14 mmHg, and the full-field electroretinography b-wave amplitude was slightly delayed (34 μV in right eye, 40 μV in left eye). Ultrasonography longitudinal B-scan showed RIOFB partly buried in the retina temporal to the disc (Figure 1b). OCT high-resolution scan (Stratus OCT Model 3000, Zeiss Humphrey, Dublin, CA, USA) was performed and showed an area of high reflectivity with marked posterior shadowing in the region corresponding to the foreign body (Figure 2). Attachment to RIOFB of highly reflective membranes that may correspond to posterior hyaloid face was also seen. Macular thickness map scan and retinal map analysis protocol showed increased thickness in the centre and the inner macular

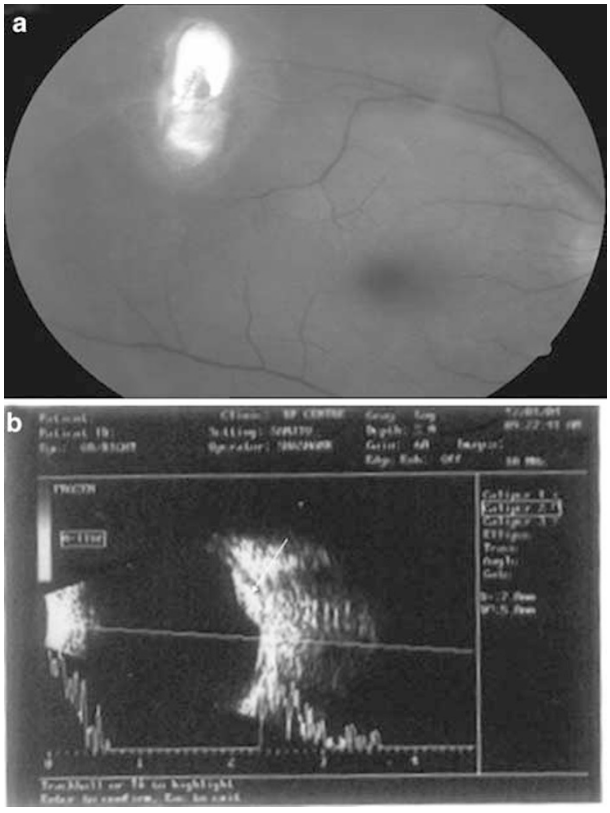

Figure 1 (a) Fundus photograph showing the retained intraocular foreign body superotemporal to the macula. (b) Ultrasonography longitudinal B-scan depicting the foreign body buried in the retina (arrow).

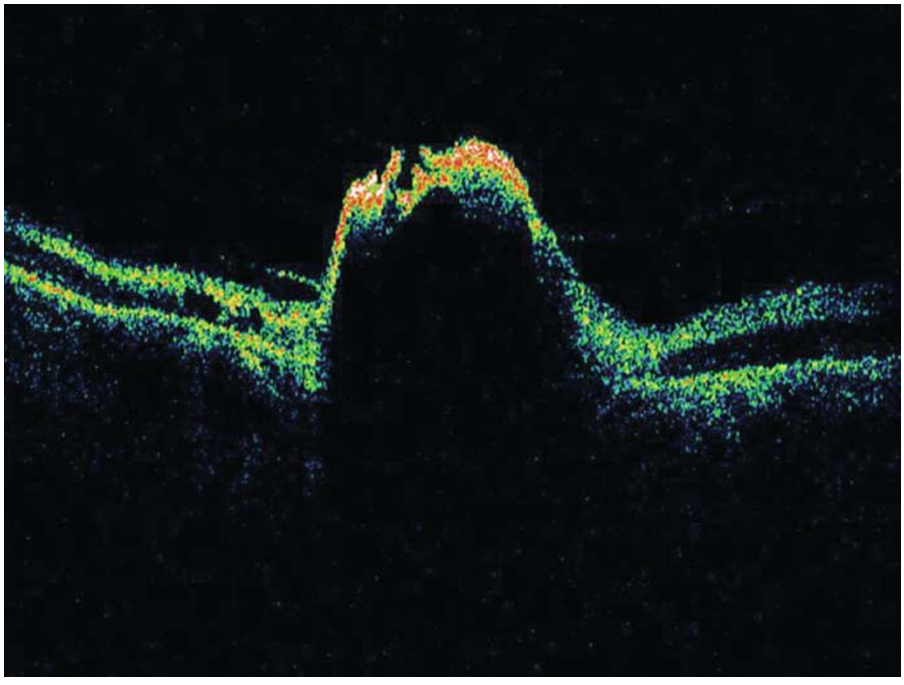

Figure 2 Optical coherence tomography showing area of high reflectivity with marked posterior shadowing in the region corresponding to the foreign body.

quadrants in the right eye. The central foveal thickness was 218 μm in the right eye and 183 μm in the left eye.

After informed consent, the patient underwent uneventful pars plana vitrectomy. A microvitreoretinal blade was used to free the RIOFB at the superior surface and the foreign body was removed completely with an intraocular magnet. Postoperative tamponade was given with C_3F_8 gas injection followed by prone positioning. At 6 weeks follow-up, the patient had a stabilized best-corrected visual acuity of 20/30 and attached retina. OCT revealed central foveal thickness of 190 μm in the right eye and 183 μm in the left eye with reduction in macular oedema and full-field electroretinography b-wave amplitude was slightly delayed (34 μV in the right eye, 40 μV in the left eye).

Comment

OCT is a useful diagnostic tool for performing high-resolution cross-sectional imaging of the retina in macular diseases including macular oedema, macular holes, detachments of the neurosensory retina, and pigment epithelium along with nerve fibre layer defects in glaucoma.[3,4] Besides initial visual acuity that is the most important predictive factor of visual outcome in patients with RIOFB,[1] assessment of the macular thickness on OCT may play an important role in predicting the postoperative visual outcome after RIOFB removal. Along with the depth of the RIOFB, OCT detected mild macular oedema preoperatively in this case, which may have accounted for a low visual acuity of 20/30, hence may prognosticate the visual potential. Radiological assessment of RIOFB with plain film X-rays, contact B-scan ultrasonography, CT scan, and MRI scanning are usually used in cases where the ocular media is opaque or physical examination is inconclusive.[2] Ultrasonography is more useful for localizing foreign bodies relative to the ocular coats than CTscan,[5,6] but is operator dependent[7] and MRI is avoided in cases of magnetic RIOFB.[2] Therefore, besides a direct visualization of RIOFB in clear media with ophthalmoscopy and slit-lamp biomicroscopy, OCT may emerge as a new modality for accurate localization of the depth of the foreign body on or within the retina, scanning the retina surrounding the RIOFB to assess consequent changes and postoperative assessment of the macula. However, OCT is operator dependent with a learning curve, with limited assessment of highly reflective foreign bodies due to back shadowing, allowing scanning only a limited area in the posterior pole near or within the retina. A study of varied RIOFB presentations will further clarify the role of OCT in such cases.

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There are no proprietary interests in the manuscript

Eye (2005) **19,** 717–719. doi:10.1038/sj.eye.6701615
Published online 3 September 2004

Sir,

Metoprolol responding uveitis

I read with interest Yassif and coworkers' description of a challenging case of panuveitis responding to oral metoprolol therapy.[1] This is indeed a finding that deserves further investigation to elucidate the mechanisms involved, and clinical implications thereof.

Some early data in this regard have already been published; Er *et al*[2] demonstrated that topical beta blockade using timolol maleate was able to reduce aqueous levels of proinflammatory cytokines interleukin-6, interleukin-8, and tumour necrosis factor-α in a rabbit