

under local anaesthesia and intravitreal vancomycin, ceftazidime, and dexamethasone administered. Intravenous flucloxacillin and ciprofloxacin, topical ciprofloxacin, and both topical and oral steroids were given. Urine and blood cultures revealed *Staphylococcus aureus*. Further investigation showed benign prostatic hyperplasia (BPH), urinary retention, and bilateral hydronephrosis. Microscopy and culture of the ocular samples was negative.

At 3 weeks later, hypotony of the right eye resolved and BCVA in the right eye improved to 6/9. The left eye remained hypotonous for 2 months, and BCVA improved to 6/18.

Comment

EBE is rare, occurring in 0.24% of bacteraemic patients. Patients often have predisposing conditions such as diabetes (35%), and in this case BPH.¹

The visual prognosis in EBE is worse than in other forms of endophthalmitis. Jackson *et al*¹ report that only 32% of patients are left with visual acuity of counting fingers or better. Given that in cases of endophthalmitis the presence of severe vitritis, retinal haemorrhages,² and infection with a virulent organism³ are associated with a worse prognosis, it is noteworthy that this patient's visual outcome was good.

This case illustrates that even in the presence of poor prognostic factors, EBE may have an acceptable outcome if treated promptly and aggressively. It is likely that earlier diagnosis of diabetes and BPH might have prevented this incident.

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J McHugh, R Wong and J Keenan

Ophthalmology Department, The Royal Surrey County Hospital, Egerton Road, Guildford, Surrey, UK

Correspondence: J McHugh, Ophthalmology Department, Epsom and St Helier NHS Trust,

Sutton Hospital,
Cotswold Road, Sutton,
Surrey SM2 5NF, UK
Tel: +44 20 8296 4359;
Fax: +44 20 8770 3869.
E-mail: jim_mchugh_@hotmail.com

No funding received. No proprietary interests declared. This material has not previously been presented elsewhere. Patient's informed consent to publish this material has been obtained

Eye (2007) **21**, 432–433. doi:10.1038/sj.eye.6702586;
published online 6 October 2006

Sir, Nd:YAG laser subretinal membranotomy in young patients with long-term retinal detachment

Subretinal bands usually occur in younger patients with long-term retinal detachment.¹ After a scleral buckle procedure, a major subretinal band may prevent the fovea reattachment. It may be necessary to perform vitrectomy and retinotomy with removal or cutting of a band.² We described two young patients with persistent fovea detachment after scleral buckling for long-term retinal detachment. Delayed development of a major subretinal band, which uplift the macula, was disrupted with neodymium:yttrium–aluminium–garnet (Nd:YAG) laser. Subretinal laser membranotomy allowed the retina to reattach gradually. Optical coherence tomography (OCT) disclosed macula reattachment after 4 and 12 months, respectively.

Case reports

Case 1

A 12-year-old boy with a 9-month history of blurred vision in his right eye presented with a long-term total retinal detachment and the best-corrected visual acuity of 20/400. After a scleral buckle procedure, inferior subretinal fluid persisted with the occurrence of a major taut subretinal band (Figure 1a) preventing macula reattachment for 4 months. Nd:YAG laser (Lightmed, USA) subretinal membranotomy was performed with a wavelength of 1064 nm, a pulse width of 4 ns, and a focal plan of up to 250 μ m anteriorly. After mounting the Golmann contact lens (Haag-Streit, UK), the laser was applied to the thinner part of a band far from the macula. The end point of treatment was disruption of a band with total six pulses of 5.0 μ J/pulse. Preretinal and subretinal haemorrhage (Figure 1b) was found immediately after the procedure and resolved spontaneously within

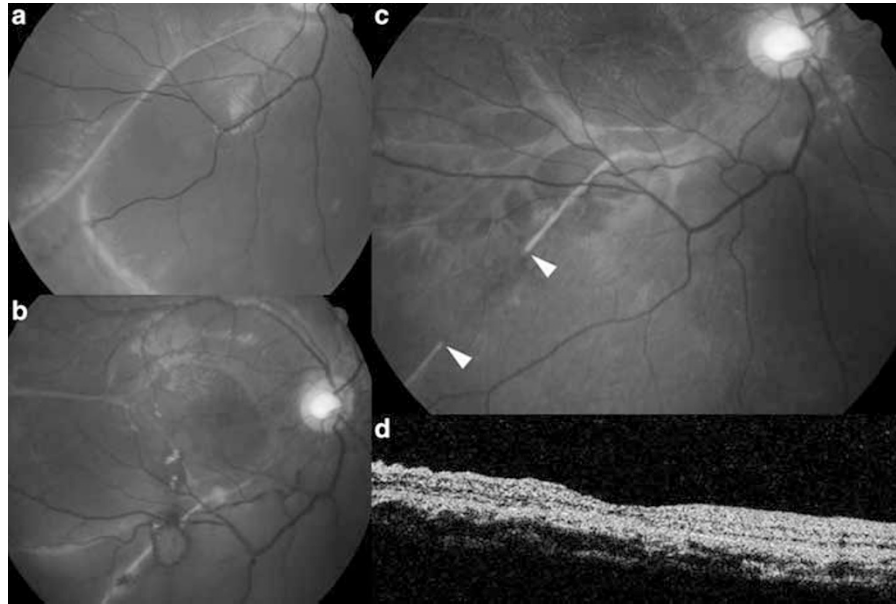


Figure 1 Fundus colour photographs and OCT in case 1. (a) A major fibrotic subretinal band after scleral buckling 4 months. (b) Nd:YAG laser subretinal membranotomy with the occurrence of haemorrhage. (c) Disrupted ends of a subretinal band (arrow) pull apart inferiorly. (d) OCT shows macula reattached after subretinal membranotomy 12 months.

2 months. A disrupted subretinal band (arrow) pulled apart gradually, allowing the retina to reattach (Figure 1c). Twelve months after the laser treatment, the best-corrected visual acuity improved to 20/100. OCT images disclosed macula attachment (Figure 1d). During the post-laser 18-month follow-up, no complications such as late detachment or choroidal neovascularization were encountered and the vision remained at 20/100.

Case 2

A 23-year-old girl with a 6-month history of blurred vision in her left eye presented with a long-term inferior retinal detachment and the best-corrected visual acuity of counting finger at 20 cm. Three months after a scleral buckle procedure, the best-corrected visual acuity improved to 20/600. However, shallow detachment persisted with nasal (arrow) and temporal (arrowhead) subretinal bands extending in parallel across the macula (Figure 1a). OCT images disclosed a temporal band (arrowhead) embedded within the retina, along with a nasal band (arrow) creating a 'clothesline' effect (Figure 2b). Nd:YAG laser subretinal membranotomy with the same procedure as described in case 1 was targeted on the thinner part of a nasal band away from the macula. A subretinal band snapped immediately with faint subretinal haemorrhage (Figure 2c), which resolved within 1 month. A disrupted nasal band pulled apart inferiorly, allowing the retina to reattach 4 months later (Figure 2d). The best-corrected visual acuity improved to 20/400. OCT showed marked subfoveal

fluid decrease with residual traction by the temporal fibrotic intraretinal band (arrowhead; Figure 2e). During the postlaser 8-month follow-up, the best-corrected visual acuity remained at 20/400 and no late complications were noted.

Comment

Nd:YAG laser produces photodisruption, and it can be applied in disorders of posterior segment including subhyaloid haemorrhage,³ diabetic tractional retinal detachment, preretinal macular fibrosis, and vitreoretinal traction from horseshoe tears.⁴ In patients with retinal detachment after scleral buckling, the subfoveal fluid may persist for several months, and late subretinal proliferative vitreoretinopathy can occur.⁵ Significant 'clothesline' effects exerted by a major subretinal band result in macula detachment for at least 3 months in our two patients. We successfully perform Nd:YAG laser subretinal membranotomy to break a subretinal band that exerts significant traction and prevents macula reattachment. In these nonvitrectomized eyes of young patients, intact posterior hyaloid with no significant degenerated vitreous decreases the potential risk of detachment from a laser-induced new retinal break. However, the application of laser is limited by the location of the subretinal band. As in case 2, although the temporal band played a more significant role of macula elevation, the extrafoveal nasal band was chosen to



Figure 2 Fundus colour photographs and OCT in case 2. (a) A fibrotic nasal (arrow) and a temporal (arrowhead) subretinal band uplift the macula after scleral buckling 3 months. (b) OCT shows a temporal intraretinal band (arrowhead), and a nasal subretinal band (arrow) elevating the macula. (c) Nd:YAG laser subretinal membranotomy targeting on a nasal band with faint haemorrhage. (d) Disrupted ends of a subretinal band pull apart gradually. (e) OCT shows marked subfoveal fluid decrease with a temporal intraretinal band (arrowhead) after subretinal membranotomy 4 months.

prevent creating a new perifoveal break because a temporal band embedded within the retina.

In conclusion, Nd: YAG subretinal membranotomy is a safe and effective procedure. It can successfully disrupt a subretinal band to reattach the retina, and prevent the need for vitreoretinal surgery. For young patients with subretinal bands after a scleral buckle procedure, anatomic and visual outcomes of the subretinal membranotomy are encouraging.

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C-H Peng^{1,2,3}, S-J Chen^{1,2,4}, C-C Tsai⁵, F-L Lee^{1,2}, S-H Chiou^{1,2} and W-M Hsu^{1,2}

¹Department of Ophthalmology, Taipei Veterans General Hospital, Taipei, Taiwan

²National Yang-Ming University School of Medicine, Taipei, Taiwan

³Department of Ophthalmology, Shin Kong Wu Ho-Su Memorial Hospital and Fu Jen Catholic University, Taipei, Taiwan

⁴Community Medicine Research Center and Institute of Public Health, National Yang-Ming University, Taipei, Taiwan

⁵Cheng Hsin Rehabilitation Medical Center, Taipei, Taiwan

Correspondence: S-J Chen, Department of Ophthalmology, Taipei Veterans General Hospital, No. 201, Section 2, Shih-Pai Road, Shih-Pai, Taipei 11217, Taiwan
Tel: + 886 2 28757325;
Fax: + 886 2 28761351.
E-mail: sjchen@vghtpe.gov.tw

Eye (2007) **21**, 433–435. doi:10.1038/sj.eye.6702594;
published online 15 September 2006