diagnosis of ankylosing spondylitis had comeout right. Behçet's disease was not considered.

The patient was placed on a regimen of intravenous methylprednisolone (1 g/day) for 3 days because of the existing inflammatory findings. Additionally, both eyes received retrobulber methylprednisolone acetate injection. After 3 days, the treatment was continued with a maintenance dose of oral prednizolone (20 mg/day).

Retinal vein occlusion is associated in older ages with common systemic vascular disorders such as hypertension, arteriosclerosis, and diabetes mellitus.[1] Coagulation deficiency, hyperviscosity syndromes, chronic leukemia, mitral valve prolapse, homocysteinemia, Behçet's disease, and systemic inflammatory diseases may also cause retinal vein occlusion in younger ages.[1–4] However, our case did not demonstrate any of them.

Ankylosing spondylitis is common in 20–40-year-old males and HLA-B27 antigen is present in about 96% of the patients. The joint involvement is asymmetric and periferic. Ocular involvement occurs in 20–30% of patients with ankylosing spondylitis. The ocular findings include recurrent, nongranulomatous iridocyclitis, which rarely affects vision.[5] Posterior inflammatory manifestations such as severe vitritis, papillitis, and retinal vasculitis have been described in patients with ankylosing spondylitis.[6]

In summary, we report an unusual case of ankylosing spondylitis presenting with bilateral occlusive retinal vasculitis.

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Sir,

Reply to endophthalmitis following 25-gauge vitrectomy

We read the article by Taylor and Aylward[1] with great interest. We congratulate the authors for publishing the first reported case of successful management of 25-gauge transconjunctival sutureless vitrectomy (TSV).

We agree with the authors that smaller incision, reduced operative time, lack of suture material and limited manipulation may reduce the risk of endophthalmitis with TSV. However, reduced flow rate (6 times) may facilitate bacterial foothold inside the eye during surgery.[2] Alignment of the conjunctival and scleral incisions and unsutured sclerotomies may increase the risk of postoperative hypotony allowing influx of microbes. This makes the eye more susceptible to postoperative endophthalmitis in comparison to the watertight wounds of a sutured 20-gauge sclerotomy.

To overcome this potential complication of postoperative hypotony and resultant potential increase in bacterial influx, we suggest displacing the conjunctiva superiorly while introducing the 25-gauge trocar and cannula at the initiation of the surgery. At the end of surgery, when the trocar and cannula are removed, the conjunctiva moves back inferiorly covering the sclerotomy. This misalignment of conjunctival and scleral wound prevents a continuous tract for fluid egress, hypotony and bacterial influx.[3]

We believe that at the completion of surgery, removing the superior cannulas while maintaining infusion creates high pressure within the vitreous cavity and promotes the vitreous to occlude the sclerotomy. This can reduce the incidence of postoperative hypotony. We also suggest suturing the sclerotomy with a single 10-0 vicryl suture when integrity of the wound is doubtful.

We congratulate the authors for reporting this uncommon but grave complication of 25-gauge TSV.

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Sir,

Central retinal artery occlusion: association with patent foramen ovale

Central retinal artery obstruction (CRAO) is uncommon in young adults, the mean age being 60 years. Emboli are visible in 25% of cases and embolic sources found in 40% of patients.[1] We present the case of young man with visual loss due to a central retinal artery occlusion secondary to a patent foramen ovale (PFO).

Case report

A 22-year-old male student was referred to the Southampton Eye Unit with sudden visual loss in the left eye 1 month previously. The patient smoked 10 cigarettes a day and was otherwise well. His vision was 6/6 in the right and NPL in the left. There was a left relative afferent pupillary defect, healthy anterior segments, and on fundoscopy the left disc was swollen with arterial attenuation and a central retinal embolus. A flourescein angiogram showed attenuation of arterial flow (Figure 1) with obstruction at the optic nerve, confirming the diagnosis of central retinal artery occlusion with ischaemic optic neuropathy.

Investigation with ultrasound B-scan, MRI, ECG, and Carotid Doppler scans was unremarkable as were haematological and biochemical investigations. Investigation for autoimmune conditions, prothrombotic diseases, and occult infections revealed no positive result. A mildly elevated homocysteine level of 20 μmol/l was detected (normal range 0–18 μmol/l).

Further investigation with transthoracic cardiac ultrasound with agitated saline contrast showed unprovoked right to left shunting across a patent foramen ovale. Further contrast injections with provocative manouvres (eg valsalva, sniff, and cough) increased the degree of right to left shunting (Figure 2). Aspirin (75 mg OD) with folic acid (300 mg OD) supplement was commenced and the patient listed for percutaneous device closure of the PFO.

Comment

CRAO is rare in patients below the age of 25 years and systemic diseases are usually causal. Common are; cardiac abnormalities, coagulopathies, collagen-vascular diseases, and oncological causes.[1] Ocular causes in younger patients include optic nerve head drusen and peripapillary arterial loops.[2] Long-term survival in patients with CRAO can be significantly reduced (5.5 years). The RECO study group found that 45% of CRAO patients under 45 years had cardiac abnormalities, of which 27% needed anticoagulation or cardiac surgery.[3]

PFO is the most common persistent abnormality of fetal origin, occurring in up to 29% of the normal adult population in autopsy studies.[4] It has been reported in adult patients with embolic stroke over 55 years old, there is a higher prevelance of PFO (40%) than control subjects (10%. $P<0.001$).[5] This association between PFO and systemic and cerebral embolism or 'cryptogenic stroke' has been consistently supported, particularly in young adults less than 55 years old.[6] Aneyursmal atrial septum, large PFO size, and spontaneous passage of bubble contrast without provocative manoeuvres, as seen in our patient, have been cited as particular risk factors.[7]

Transcatheter PFO closure has a low complication rate (<1%) and was first reported to reduce the risk of recurrent cryptogenic strokes in-patients with PFO in 1992. A subsequent systematic review of percutaneous closure has shown it to have a protective effect on stroke or transient ischaemic attack recurrence compared to medical treatment (annualised incidence 1.9 *vs* 5.4%, relative risk 0.346, 95% CI 0.209–0.573; $P<0.0001$).[8] Randomised control trials are currently assessing these therapeutic options more rigorously.[9,10]

In this case a PFO with spontaneous right to left shunting was found following an ocular thromboembolic event. Closure of the PFO was performed to reduce the risk of stroke and bilateral loss of sight.

This case represents the importance of carrying out thorough investigation into potential embolic sources,