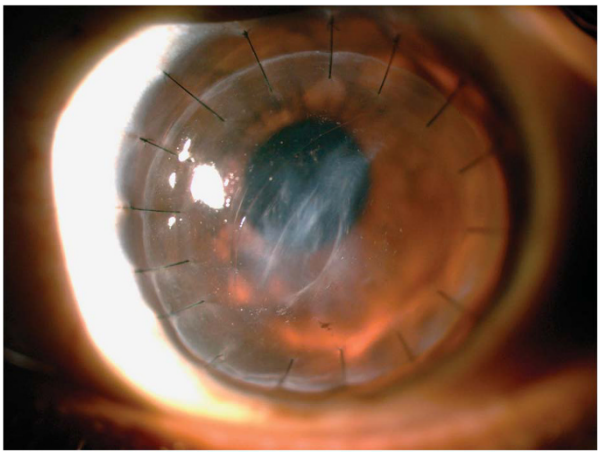

Figure 3 Diffuse slit-lamp view of the same eye following DALK with Descemet's membrane scar.

Following surgery, the patient had a visual acuity of 20/80 with a correction of -4.5 D/-1.5 D Cyl @70 degrees. Descemet's scar was visible (Figure 3).

Comment

Intracameral C_3F_8 gas is a useful modality for fast resolution of corneal edema in acute corneal hydrops in keratoconus.[2] Although clinically early resolution of edema has been noted in case reports and series, complications of glaucoma and fixed dilated pupil in acute corneal hydrops or following DALK have been reported.[3–5] A case report of non-resolution of acute hydrops because of intrastromal migration of C_3F_8 gas has been reported.[6] Hence, careful follow-up of intraocular pressure and gas status is mandatory after C_3F_8 gas injection.

We decided to do DALK in the case reported, as the thinning was extensive and was reaching the limbus. Zhang *et al*[7] reported satisfactory visual outcomes with both PK and DALK in treating keratoconus.

To conclude, we present a case of hydrops managed by C_3F_8 injection followed by DALK.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

Trendelenburg positioning with temporal approach for vitreoretinal surgery in a patient with severe kyphosis

While vitrectomy is typically performed with the patient supine, technical difficulties arise in patients who are unable to lie flat. Modified equipment and patient positioning have been described for cataract surgery.[1,2] However, no position modifications have been described for vitreoretinal surgery. We report a positioning and surgical technique for pars plana vitrectomy in a severely kyphotic patient.

Case report

A 65-year-old male with severe kyphosis and prior cervical vertebral fusion with limited neck extension presented with retained lens fragments after cataract surgery and medically uncontrolled intraocular pressure in the left eye. Ability to position supine was tested in an examination chair (Figures 1a and b). Intra-operatively, the gurney was tilted to a Trendelenburg position (25–45°, head down). The patient's neck and shoulders were supported with foam pillows and towels that were taped, and the patient's thighs were supported by pillows. The surgical belt was tightened. A stool was placed under the head of the bed for support, in the event of bed breakage from extreme positioning (Figure 1c). The operating microscope with wide-angle viewing system (OPMI LUMERA 700 and RESIGHT, Carl Zeiss Meditec, Jena, Germany) was rotated 20° to align with the corneal plane. A temporal surgical approach was used (Figure 1d). Intraocular pressures were 20.5 mm Hg in the right eye and 19.5 mm Hg in the left eye, measured by a pneumatonometer. A mild intravenous anesthetic was administered, followed by sub-Tenon's anesthesia. Three-port

Figure 1 (a) Photograph of the patient standing upright in the clinic, demonstrating kyphosis. (b) Prior to surgery, the patient was reclined in an office examination chair in order to determine his head position while supine. (c) At surgery, the patient was placed in Trendelenburg position with towels under his head for extra support, along with a stool placed under the operating table for added stability and safety. (d) Temporal approach vitrectomy and lensectomy were performed with the patient in Trendelenburg position.

20-gauge pars plana vitrectomy and lensectomy were performed. Infusion pressures were kept low (10–20 mm Hg). Postoperative results were favorable, with no increase in neck pain.

Comment

Trendelenburg positioning and temporal approach can be used for vitrectomy in patients who cannot lie flat. In some cases a superior approach may be feasible, depending upon the surgeon's access to the eye over the brow. Trendelenburg positioning can cause cardiac and pulmonary stress, increase intraocular pressure by 10–20 mm Hg[3] and decrease cerebral perfusion and ocular perfusion pressure.[4,5] Infusion pressures should be kept low and operating times minimized to prevent these sequelae. An in-office trial of Trendelenburg positioning can simulate the operating table. Careful review of the patient's ocular and medical history and planning with a multidisciplinary team can help achieve surgical goals while maximizing patient comfort and safety.

Conflict of interest

The authors declare no conflict of interest.

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Sir,

Intra-orbital gas following sutureless small-gauge (23-gauge) vitrectomy masquerading as orbital cellulitis

Small-gauge sutureless vitrectomy using 23-gauge, 25-gauge or 27-gauge valved self-sealing sclerostomies is now routinely performed for numerous vitreo-retinal surgical procedures. We describe a case where the gas used for postoperative tamponade escaped from the globe through the sutureless 23-gauge valve sclerostomy ports into the subconjuctival and intra-orbital spaces, causing signs and symptoms suggestive of an orbital cellulitis.

Case report

A 43-year-old myopic (− 3DS) female presented with 6/6 vision and a right macula-on rhegmatogenous retinal detachment associated with posterior vitreous detachment and a supero-temporal horse-shoe retinal tear. Emergency surgery was scheduled under sub-tenons anaesthesia on the same day. Following a 5-ml sub-tenon block (a 50 : 50 mixture of 2% lignocaine and 0.5% bupivacaine with 150 units of hyaluronidase) the anaesthetist noted a tense globe and surgery was postponed due to a suspected retro-bulbar haemorrhage. The eye settled spontaneously within the next few hours and there was no evidence of a retro-bulbar haemorrhage. Surgery for the retinal detachment was scheduled the next day under general anaesthesia. She underwent 23-gauge micro-incision sutureless vitrectomy using valved self-sealing sclerostomies (Constellation Vision System, Alcon Laboratories, Inc, Fort Worth, TX, USA) with cryo retinopexy and 16% C2F6 gas tamponade (perfluoroethane). There were no intra-operative complications. Postoperatively on day 1, intra-ocular pressure (IOP) was 16 mm Hg and a 90% gas fill was noted with a flat retina. On postoperative day 3 the patient returned to the emergency department with headache, nausea, and redness and swelling of the right eye. Visual acuity was hand movements and the right eye was chemosed and congested with an IOP of 46 mm Hg. Mild anterior chamber inflammation (cells 1 +) was

Figure 2 CT scan imaging of the orbits demonstrating extra-scleral loculated lesions (marked with an open white arrow) with the same radio-density as the intra-ocular gas. There are no signs of an orbital or sub-periosteal collection and no signs of orbital inflammation.

Figure 1 Colour photograph of the face demonstrating congestion, chemosis, and proptosis of the right eye with soft-tissue swelling of the upper and lower lid.