Primary surgical management in a case of subtotal iridodialysis

Iridodialysis is the separation of the iris base from the ciliary body and the scleral spur. The iris root is the thinnest and weakest part of iris anatomy, making it vulnerable to ocular trauma.¹ We describe a case where traumatic iridodialysis was sustained resulting in secondary glaucoma. Surgical intervention involving an anterior chamber washout and removal of necrotic iris brought about control of the intraocular pressure.

Case report

A 66-year-old man sustained blunt trauma to his right eye whilst repairing his garage door. Visual acuity in this eye was hand movements. On slit-lamp examination an iridodialysis of 330° was present, as was a microscopic hyphaema (Fig. 1). There was a vitreous haemorrhage, with no fundal view. The lens was subluxed posteriorly and cataractous. The iris appeared to be necrotic. There was zonular dehiscence except inferiorly where the iris was still attached. The intraocular pressure was 40 mmHg. An ultrasound scan showed a flat retina. The patient was treated with topical steroids and betablockers, together with systemic acetazolamide and mannitol. None of this served to reduce the intraocular pressure, which fluctuated between 40 and 60 mmHg. A paracentesis was performed and the dialysed iris tissue removed. Due to significant damage to the lens zonule, the lens was removed using an intracapsular technique. An anterior vitrectomy was then performed. By the next day the intraocular pressure was 14 mmHg, and remained controlled 4 months later. By this time, most of the vitreous haemorrhage had cleared, and the patient was achieving 6/12 vision using a coloured aphakic contact lens.

Comment

Romen and Singer² described a case of persistent secondary glaucoma despite good visual outcome following traumatic iridodialysis. Possible mechanisms for the development of glaucoma include angle recession, trabeculitis, trabecular damage, or debris in the anterior chamber. Surgical techniques have been formulated to enable repair of even a large iridodialysis, but with viable iris tissue.³

We suggest that the cause of the pressure rise in this case was inflammation from necrotic tissue in the anterior chamber. The rapid resolution of the glaucoma precludes any significant trabecular trauma. Lenticular damage may have been a contributory factor, but the lens was not obstructing the drainage angle.

In cases of subtotal iridodialysis, where the iris tissue is unlikely to be viable, we suggest early removal of necrotic tissue to avoid secondary glaucoma.

If removal of the iris is inevitable, problems of both cosmesis and glare result. Several strategies have been employed to overcome these problems. Implantation of an iris diaphragm has been described, and so has corneal



Fig. 1. Colour photograph showing subtotal iridodialysis.

tattooing. ^{4,5} In cases where a cataract has developed and the lens zonule is stable, frosted intraocular lenses have been implanted with success. ⁶

References

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Sir,

Treatment of preretinal Valsalva haemorrhages with neodymium: YAG laser

Valsalva retinopathy is caused by a sudden increase in intrathoracic or intra-abdominal pressure against a closed glottis (Valsalva's manoeuvre) and is characterised by rupture of superficial retinal capillaries