PostScript

LETTERS

Management of intraoperative tilting of the scleral-fixated intraocular lens in classical aniridia

Scleral-fixated posterior chamber intraocular lenses (SFIOL) are an attractive option for optical correction of aphakia in people with ectopia lentis. Postoperative intraocular lens (IOL) tilt/decentration have been reported in 5–10% of eyes that undergo SFIOL implantation.^{1,2} We report the case of a boy with aniridia who underwent SFIOL implantation and had intraoperative IOL tilting, and the management of intraoperative tilting.

Case report

A 16-year-old boy had been diagnosed at 4 weeks of age to have bilateral aniridia with almost completely absent irides, ectopia lentis, anterior polar cataracts, macular hypoplasia and nystagmus. Sequence analysis of the coding exons of the PAX6 gene revealed a C→T variant at nucleotide 1017 of the cDNA M93650 (<http://pax6.hgu.mrc.ac.uk/About/pax6cdna.htm>). This novel mutation (Q219X) introduces a stop codon in the homeodomain of the PAX6 protein, and truncating mutations in this domain are associated with classic aniridia.³ For 16 years, he maintained visual acuity of 6/60 from his right eye with aphakic correction. In September 2005, a break was seen in the anterior lens capsule of the right eye. Pars plana vitrectomy (PPV) and lensectomy with implantation of SFIOL were planned.

Standard three-port PPV and lensectomy were performed. Two-point fixation technique⁴ was adopted for SFIOL (Alcon CZ70BD IOL (Alcon laboratories, Fort Worth, Texas, USA), 12.5 mm length, 7 mm optic). Partial-thickness scleral flaps were created at 3:00 and 9:00 positions and a straight 10-0 polypropylene suture needle was passed into a 27-gauge needle to exit at the opposite ciliary sulcus, 1 mm posterior to the limbus. A superior, clear corneal incision was created, the anterior chamber was filled with viscoelastic material, the suture was externalised, divided and the ends secured to the IOL eyelets. The IOL was inserted and the sutures secured in the beds of the flaps.

The classic aniridia with almost total absence of iris allowed, at this point, the IOL to rotate 90° about a line joining 3:00 limbus position to 9:00 limbus position, and came to rest with its surface oriented anteroposteriorly. To manage this, support was provided using 10-0 polypropylene suture in the coronal plane perpendicular to its axis of rotation (fig 1). The straight needle was inserted into the eye behind the limbus at 12:30 position, passed behind the IOL, to the 5:30 position where it exited the eye posterior to the limbus. The needle was passed again in a similar fashion, from 6:30 position to 11:30 position, and the suture was tied (fig 1). The IOL was now stable.

Comment

This case demonstrates an intraoperative problem in aniridia that probably occurred due to absence of the iris that would normally restrict rotation of the IOL. We are unaware of any previous reports of this problem. This tilt was managed by providing support in the coronal plane perpendicular to its axis of rotation, posterior to the IOL. Support anterior

to the IOL could have served the purpose just as well. Alternatively, four-point fixation of the IOL may also help; however, it is uncertain to what extent it might prevent such rotation.

Postoperative course was uneventful. When examined in December 2005, his visual acuity was 3/60, and the IOL was well supported in the optimal position.

Figure 1 Schematic diagram showing direction of intraoperative tilting of the intraocular lens (IOL), and the suture support provided perpendicular to its axis of rotation.

Figure 2 Anterior segment pre- and post-operative photographs of the right eye. A and B, direct and retroillumination pre-operative photographs showing subluxated cataractous lens. C and D, direct and retroillumination post-operative photographs showing stable and well positioned intraocular lens with supporting sutures.

This case suggests that IOL tilt is a potential problem when implanting SFIOLs in patients with classic aniridia. We propose provision of additional support in such cases.

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References

- 1 Sundmacher R, Althaus C, Webster R, *et al.* Two years experience with transscleral fixation of posterior chamber lenses. *Dev Ophthalmol* 1991;**22**:89–93.
- 2 Hayashi K, Hayashi H, Nakao F, *et al.* Intraocular lens tilt and decentration, anterior chamber depth and refractive error after trans-scleral suture fixation surgery. *Ophthalmology* 1999;**106**:878–82.
- 3 Prosser J, Van Heyningen V. PAX6 mutation review. *Hum Mutat* 1998;**11**:93–108.
- 4 Hu BV, Shin DH, Gibbs KA, *et al.* Implantation of posterior chamber intraocular lens in the absence of capsular and zonular support. *Arch Ophthalmol* 1988;**106**:416–20.

Skills acquired during training: a cause for concern?

Ophthalmology is a popular and competitive speciality, and there has been increasing concern regarding the balance of specialists completing training and the number of vacancies for their employment.¹ The Royal Colleges have suggested trainees develop their skills during training to improve employment in the evolving NHS. This is the first study to evaluate the popularity and competitiveness of ophthalmology subspecialties, and identified an imbalance between the skills acquired during specialist registrar training and those in demand in the workforce. Trainees are able to identify their preferred subspecialty interest at an early stage; this information may be used by both trainees and trainers to develop a coherent strategy for workforce planning in both the NHS and academia.

We evaluated skills acquired in training by surveying the career intentions and subspecialty interests of current ophthalmology specialist registrars (SpRs) in North Thames (London Deanery). An electronic questionnaire was emailed to all 60 ophthalmology SpRs in the North Thames Region during 2005, via the Royal College of Ophthalmologists' Ophthalmic Trainees Group. The demand of skills in the workforce was evaluated by assessing the advertised posts for consultant ophthalmologists in the UK in 2005.

Thirty four questionnaires were returned, representing 56.7% of SpRs in the North Thames Region. Twenty three (68%) were male and 11 (32%) were female, with a mean age of

35 (range 30–47) and stage year 3 of SpR training. Preferred subspecialty interests stated by respondents and subspecialty requirements of advertised consultant ophthalmologist posts for 2005 are shown in table 1 and figure 1.

Comments

The most popular subspecialty interests among SpRs were Vitreoretinal surgery (23.2%), Oculoplastics (22.0%) and Anterior Segment (15.9%). The least popular common subspecialty was Paediatrics and Strabismus (9.8%). Of the 62 consultant posts advertised in 2005, the subspecialist interests specified were:

Glaucoma (21.0%), Medical Retina (21.0%), Paediatrics and Strabismus (19.4%), Adnexal (16.1%), Anterior Segment (6.5%) and Vitreoretinal (6.5%). This information shows a mismatch between the subspecialty interests, especially for Vitreoretinal surgery and Anterior Segment. Our findings suggest that a majority of trainees surveyed still intend to pursue these careers despite the uncertainty of securing a consultant post. Conversely, Paediatrics and Strabismus was third most common consultant post advertised (19.4%), but less popular among trainees, with only 9.8% stating an interest in this subspecialty.

Figure 1 A chart showing the mismatch between subspecialist interests of trainees and consultant posts advertised in 2005.

Table 1 Subspecialty interests of UK ophthalmology SpRs (2005)

Subspecialty	Primary subspecialty interest		Consultant ophthalmologist posts advertised	
	Trainees (n)	Trainees (%)	Posts (n)	Posts (%)
Vitreoretinal	19	23.2	4	6.5
Oculoplastics	18	22.0	10	16.1
Anterior Segment	13	15.9	4	6.5
Medical Retina	11	13.4	13	21.0
Glaucoma	10	12.2	13	21.0
Paediatrics & Strabismus	8	9.8	12	19.4
Oncology	1	1.2	0	0
Neuro-ophthalmology	2	2.4	2	3.2
Medical Ophthalmology	0	0	1	1.6
Other*	2	—	3	4.8

*Accident & Emergency, academic posts.