



Nick Mamalis

Dermot McGrath in Lisbon

DISLOCATION and decentration are the most common reasons for IOL explantation, with incorrect lens power the next most important factor, reported Nick Mamalis MD at the XXIII Congress of the ESCRS.

Dr Mamalis presented the results of the 7th annual survey – conducted by the European Society of Cataract and Refractive Surgeons (ESCRS) and the American Society of Cataract and Refractive Surgery (ASCRS) – on foldable IOLs requiring explantation or secondary intervention. The survey was written in conjunction with members of the ASCRS Cataract Clinical Committee.

The questionnaire, sent to members of both the ASCRS and ESCRS, considered the patient signs and symptoms, the type of IOL that was removed,

Dislocation and decentration most common reasons for IOL explantation

preoperative and postoperative visual acuity, and patient symptoms requiring removal. The IOLs included in the survey were one-piece plate type, one-piece IOLs with haptics, three-piece IOLs, and multifocal IOLs. The IOL materials were silicone, hydrophilic acrylic (hydrogel), hydrophobic acrylic and collamer, a hybrid material.

Dr Mamalis, professor of ophthalmology, Moran Eye Center, University of Utah, Salt Lake City, emphasised that the purpose of the exercise was not to single out individual IOLs as being either superior or inferior to other lenses.

“I think that it is important when we look at surveys like this to realise that we are not saying that one particular lens is better than another lens but what we are focusing on is the particular class or type of IOL to evaluate what complications are cropping up regularly that necessitate their removal,” he said.

Dislocation most common factor for most lens types

Dislocation or decentration was the most common reason for explantation of the three-piece silicone foldable IOLs. Incorrect lens power was another common reason, followed by less common

complications such as optical aberrations and damaged lenses.

Decentration or dislocation were also the primary problems associated with the removal of one-piece plate-type silicone lenses, followed by incorrect lens power. A similar scenario was reported for three-piece acrylic IOLs, with decentration/dislocation, incorrect lens power, glare and optical aberrations among the most commonly cited reasons for explantation. Likewise, dislocation or decentration and incorrect lens power accounted for most cases necessitating removal of one-piece acrylic lenses with haptics.

The only real deviation in the overall pattern, noted Dr Mamalis, were the findings with hydrogel IOLs. Calcification was overwhelmingly the leading cause of explantation for one-piece hydrogel lenses with haptics, as well as for three-piece hydrogels.

“In this survey, calcification was seen exclusively on the hydrophilic acrylic lenses and this was both on the surface and within the material of the lens itself,” he said.

Glare a problem with multifocals

Glare and optical aberrations were the most commonly cited

reason for removal of multifocal IOLs, almost all of which were made from silicone material.

Putting the data into context, Dr Mamalis said that with the exception of hydrogel IOLs, dislocation or decentration had proved the most common reason for removal, followed by incorrect lens power.

“Glare and optical aberrations are still seen with foldable IOLs. IOL damage on insertion is being seen less frequently as we are getting better at loading and putting in implants,” he said.

While there were a wide variety of post-explant complications including corneal oedema, bullous keratopathy, iritis uveitis-glaucoma-hyphaema (UGH) syndrome and retinal problems, no trends were apparent. It was also heartening to note that most patients ended up with quite good visual acuity despite these complications, said Dr Mamalis.

Avoiding explantation

Looking at measures that could be taken to reduce explantation rates in the future, Dr Mamalis said that surgeons had a major role to play in combating this type of complication.

“First of all, we need to bear in mind that there is no substitute for excellent surgical technique. It

is vital to have an intact capsulorhexis and to implant the IOL within the capsular bag – that will help to decrease the incidence of decentration and dislocation. It is also important to have excellent IOL measurements. New biometry technologies are coming on-line that will help us to make more accurate measurements and choose the right IOL power first time,” he said.

Dr Mamalis stressed that the explantation study was ongoing and depended on the contributions of ophthalmologists and ophthalmic surgeons to stay abreast of emerging trends in a fast-moving field.

“We need to maintain ongoing vigilance in following and monitoring any new IOL material that is coming onto the market because we need to be aware of complications that are showing up, even one or two years after implantation of these lenses,” Dr Mamalis said.

Cataract surgeons are encouraged to report IOL explantations as they occur, using the form available via the ESCRS or ASCRS websites (www.es CRS.org, www.as CRS.org).
nick.mamalis@hsc.utah.edu