

Prognosis generally good after vitreous loss during cataract surgery

Cheryl Guttman
in Paris

WHILE vitreous loss during phacoemulsification cataract surgery is clearly best avoided, with appropriate intraoperative and postoperative management, the vast majority of eyes can still achieve good visual outcomes, according to the findings of an audit conducted by ophthalmologists at the Gloucestershire Hospitals NHS Trust in the United Kingdom.

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Brinda Muthusamy MBChB, presented the results of the study at the XXII Congress of the European Society of Cataract & Refractive Surgeons. Using data entered prospectively in a cataract surgery-specific electronic patient record database (Medisoft), the analyses were based on review of 1,914 phacoemulsification cases performed between November 2000, and December 2003 by two consultant surgeons and a number of training surgeons.

Posterior capsule (PC) rupture or zonular dehiscence

occurred in 40 (2.09%) eyes. Outcomes were analysed in 34 eyes after excluding cases where there was zonular dehiscence without vitreous loss (three eyes), incomplete follow-up (two eyes), or a previous pars plana vitrectomy (one eye).

Twenty-eight (82%) of the 34 eyes underwent mechanical anterior vitrectomy, and the rest did not have vitreous loss that required this procedure. Four eyes (12%) needed further surgical intervention with pars plana vitrectomy because of a retained lens fragment, IOL dislocation or postoperative retinal detachment.

Satisfactory outcome in most eyes

The visual outcome analysis showed that at final review, which was defined as the decision to advise postoperative refraction, BCVA was 6/12 or better in 88% of eyes. Some 25 (74%) eyes had gained two or more lines of Snellen acuity. Loss of one or more lines occurred in only 6% of eyes.

“We are happy to report there were no cases of culture-positive or culture-negative endophthalmitis, and overall, we found our outcomes, both with respect to rate of PC rupture and visual acuity results in those cases, compare favourably to those of the British National Cataract Surgery Survey in which there was a 4.4% rate of PC rupture and 92% of all eyes undergoing surgery achieved a final BSCVA of 6/12 or better. However, we look forward to reports on PC rupture rates from other centres using this

electronic patient record system to see what data they manage to collect and to see if their conclusions are similar to ours,” said Dr Muthusamy.

A variety of other data were collected in the electronic patient record system and analysed in this study. A review showed that preoperatively, eight (24%) of the 34 eyes had some co-morbidity that could affect the final visual outcome and nine (26%) had preoperative myopic correction (median error, -3.5 D). However, Dr Muthusamy noted the preoperative assessment did not include routine documentation of the presence or absence of vitreous detachment.

“Data on the preoperative vitreous state of all of our cataract patients is valuable when looking at retinal detachment as an outcome since the risk of that event after complicated cataract surgery varies depending on whether the vitreous is attached or not,” she said.

Among the 34 eyes, the IOL could be placed in the bag in 10 (29%), and 22 had IOL placement in the sulcus (65%). An anterior chamber IOL was required in one eye (3%) and one eye (3%) was left aphakic.

The patients who experienced PC rupture required an average of 1.82 clinic visits for follow-up, ranging from one to four visits.

“That finding demonstrates that although PC rupture is a serious condition requiring diligent intraoperative and postoperative management, a favourable outcome can be

Pars plana vitrectomy

Eyes needing PPV	4 (12%)
PPV for retained lens fragment	2 (6%)
PPV for IOL dislocation	1 (3%)
PPV for post op retinal detachment	2 (6%)

Outpatient follow-up

Average number of clinic visits	1.82 (range 1-4)
Median number of clinic visits	2

Courtesy of Brinda Muthusamy MBChB

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achieved without necessarily placing a great stress on the department’s resources,” Dr Muthusamy said.

Overall, the investigators also believe their study demonstrates a benefit of electronic patient records for improving data collection.

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