

Study results support routine reliance on topical anaesthesia for cataract surgery

Cheryl Guttman
in Fort Lauderdale

TOPICAL anaesthesia offers a safe and effective choice for the majority of patients undergoing cataract surgery, a large retrospective review confirms.

“Topical anaesthesia is simple, inexpensive, and allows the operation to be performed by an experienced surgeon with minimal discomfort for the patient and without compromising safety. Our experience in this large series demonstrates it can be used systematically for nearly all patients,” said Jean-Marc Perone MD at the annual meeting of the Association for Research in Vision and Ophthalmology.

The study involved 3,000 consecutive cases he performed at the Regional Hospital Centre,

Metz-Thionville, France, between January 2002 and November 2004. The patients ranged in age from 29 to 98 years old, with a mean age of 71.6 years.

All patients underwent phacoemulsification through a clear corneal incision with implantation of a foldable IOL. He placed a single suture to close the incision in nearly half of the cases (44%). The topical anaesthesia regimen consisted of one drop of unpreserved oxybuprocaine HCl 0.4% instilled 10 minutes preoperatively followed five minutes later with three drops of unpreserved tetracaine 1.0 %.

In 95.2% eyes, no supplementary techniques were needed for anaesthesia. Some 3.3% of cases received local-regional anaesthesia with a retrobulbar injection for reasons

that included poor patient cooperation or difficulties due to language comprehension. In addition, 1.5% of the patients underwent general anaesthesia. Those patients were either very young, mentally handicapped, or suffering from dementia.

The mean duration of the procedures was 11.16 minutes, ranging from six to 40 minutes. The most common complication encountered was superficial keratitis, in 2.1% of cases. In addition, there were 15 capsule breaks (0.5%), and a single case of endophthalmitis (0.1%). None of the complications adversely affected final visual acuity.

Dr Perone said that he first began using topical anaesthesia when he became frustrated by the long waiting times sometimes encountered before the anaesthetist would come to see

his patients in the hospital, before surgery. Performing surgery under topical anaesthesia obviates the need for the anaesthetist’s visit, he explained.

Topical anaesthesia well tolerated

In a previous prospective study (ARVO 2004), Dr Perone evaluated the tolerability of cataract surgery performed under topical anaesthesia. That trial included 300 patients who were asked to rate their pain/discomfort during surgery on a scale of 0 (absent) to 10 (worst). The mean pain score was approximately 2, and about two-thirds of the patients rated their discomfort in the range of absent to minimal (0 to 2).

Although topical anaesthesia is now his technique of choice for cataract surgery, Dr Perone

acknowledged there are some patients who are not well suited to undergo this approach. However, they can usually be readily identified preoperatively. He also suggested that cataract surgery using topical anaesthesia is not appropriate for beginning surgeons.

“We believe this technique should be used in the hands of an experienced surgeon, although the learning curve for developing sufficient expertise to use topical anaesthesia is minimal and probably involves no more than 50 to 100 cases,” he said.

Dr Perone is now completing a prospective study comparing the same oxybuprocaine/tetracaine regimen against anaesthesia provided by a viscoanaesthetic agent containing oxybuprocaine/lidocaine 1%. His investigation will include an analysis of changes in endothelial cell count. He is also planning a prospective study comparing the use of the oxybuprocaine/tetracaine topical drop regimen to topical oxybuprocaine alone.

peronejm@aol.com