Glaucoma and Reoperations Following Infantile Cataract Surgery

The preferred optical correction of infantile aphakia is a controversial and unsolved treatment dilemma. The decision whether to implant an intraocular lens (IOL) or to use a contact lens will have important implications regarding the child’s vision in the future and the overall health of the treated eye. The frequent need for temporary correction with contact lenses or spectacles in those receiving primary IOLs, because of the anticipated myopic shift, also complicates the management decision. The recent publication of the 1-year results of the Infant Aphakic Treatment Study (IATS) have led many to seriously consider the consequences of implanting IOLs in infants with monocular aphakia. The reoperation rate of 63% in the IOL group versus 12% in the contact lens group is particularly disconcerting.

In this issue, Saltzmann et al. confirm that the development of glaucoma following infantile cataract surgery remains a significant concern. In the 64 eyes meeting their inclusion criteria, 11 (17.2%) developed glaucoma during a mean follow-up of 65.1 ± 4.3 months. Age younger than 3 months at cataract diagnosis or cataract extraction and the presence of anterior chamber anomalies were the risk factors they found to have statistical significance for the development of glaucoma. Eight of 11 eyes with glaucoma (72.2%) required at least one surgical intervention. Three of 10 eyes (30%) had a final best-corrected visual acuity below 20/400 and another 4 eyes (40%) demonstrated some degree of amblyopia. Phakic status was not found to be associated with the development of glaucoma. Of 5 eyes receiving primary IOL implants, 2 developed glaucoma. Although higher than the 15.3% rate of glaucoma among aphakic eyes, this difference did not reach the level of statistical significance.

The IATS found that the surgical indications for reoperation were to clear lens proliferation and pupillary membranes from the visual axis. These results were in children at 1 year of age and experienced pediatric ophthalmologists recognize that the development of glaucoma can occur years after cataract surgery. Even with modern microsurgical techniques, infantile cataract surgery continues to pose a risk of secondary glaucoma and IOL implantation is associated with a significant reoperation rate from lens re-proliferation. It is easy to understand why the ideal correction of infantile aphakia remains controversial and continues to undergo scientific scrutiny.

REFERENCE