Indications for cataract surgery should be broadened in glaucoma patients given that this procedure is known, on average, to lower IOP in both those with angle-closure or open-angle glaucoma, Kuldev Singh MD, PhD told a Glaucoma Day session at the 2013 American Society of Cataract and Refractive Surgery Symposium.

Current guidelines generally call for delaying cataract removal until there is substantial impact on the patient’s activities of daily living, noted Dr. Singh, who is professor and director of the glaucoma service at Stanford University School of Medicine. Dr. Singh made the case that there are circumstances when cataract surgery may be a good option prior to substantial visual disturbance in those who have coexistent glaucomatous disease, particularly when medical and laser therapy for the disease have been unsuccessful.

“Cataract removal prior to trabeculectomy is often better than trabeculectomy first,” added Dr. Singh, “given that trabeculectomy commonly accelerates cataract formation and cataract surgery following trabeculectomy can jeopardise the functioning trabeculectomy often resulting in bleb failure.”

Cataract removal may also lower the risk of future filtration procedures as lens-related complications are fairly common following trabeculectomy and pseudophakic patients may not be as likely to have such problems as phakic individuals. “If you had a drug that lowered IOP by 4.0 mmHg for at least three years and helped patients see better, it would undoubtedly be a blockbuster,” said Dr. Singh, “and this is the profile of modern cataract surgery in the glaucoma patient.”

Most common procedure Dr. Singh pointed out that cataract surgery is already the most common IOP-lowering procedure performed worldwide.

In other words, the approximate 500,000 patients undergoing cataract surgery, a procedure which commonly results in a decreased dependence upon postoperative glaucoma medications, is three to four times as great as the number undergoing all other surgical glaucoma procedures. Indeed, one can make the argument that from a public health perspective, reducing the global backlog of 20 million potential cataract cases may have a greater positive impact in decreasing glaucoma-related disability than using the same resources to combat glaucoma, particularly in the developing world where treatment of glaucoma is suboptimal in so many ways, Dr. Singh said.

For patients with ocular hypertension, cataract surgery alone may be enough for long-term IOP control, Dr. Singh said. For those with mild-to-moderate glaucoma, cataract surgery alone or in combination with some of the novel ab interno surgical procedures may be a viable option. For those with severe glaucomatous disease, combined cataract surgery and trabeculectomy will remain the gold standard in the near future.

Dr. Singh noted that early cataract surgery is already accepted practice in Asia for closed-angle glaucoma, and well designed randomised clinical trials have supported this approach which results in deepening of the anterior chamber angle.

For primary open-angle glaucoma, however, the mechanism by which IOP is lowered following cataract surgery is less well understood Dr. Singh said. It may be that further opening of the trabecular meshwork by removing the lens is beneficial even when the angle is already open or that there is an inflammatory response leading to rejuvenation of the trabecular meshwork similar to the presumed mechanism of action with laser trabeculoplasty.

What is clear is that cataract surgery, on average, lowers IOP in open-angle glaucoma, and surgeons should consider using this procedure with or without other IOP-lowering procedures in patients with glaucoma, Dr. Singh said. He did caution, however, that the average IOP reduction is not representative of all cases and IOP spikes after cataract surgery may result in the necessity for urgent glaucoma surgery which should not be withheld in such cases.

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