

## REFERENCES

1. Chang DF, Campbell JR. Intraoperative floppy iris syndrome associated with tamsulosin. *J Cataract Refract Surg* 2005; 31:664–673
2. Schwartz G. A rational ordering of the actions of antipsychotic drugs. *J Fam Prac* 1982; 14:263–267

**Reply:** The finding that an antipsychotic medication with strong  $\alpha$ -antagonist properties may have caused IFIS is most interesting. Now that this syndrome of IFIS has been defined, it will be interesting to see to what extent  $\alpha$ -antagonists besides tamsulosin are associated with this syndrome. The technique of direct intracameral injection of phenylephrine certainly deserves further study.—*David F. Chang, MD, John R. Campbell, MD*

## Alpha antagonists in cataract surgery

Alpha blockers (also known as  $\alpha$ -adrenergic blockers or  $\alpha$ -adren-ergic antagonists) are used primarily in the treatment of systemic hypertension and benign prostatic hyperplasia. They block the effects of stress hormones that lead to an increase in heart rate and blood pressure. Alpha receptor blockade in hyperplastic prostatic tissue, prostatic capsule, and bladder neck decreases smooth muscle tone, thereby decreasing resistance to urinary flow and improving symptoms.

Concern about the use of these medications, especially tamsulosin (Flomax), has been linked to causing the intraoperative floppy iris syndrome (IFIS).<sup>1</sup> We wondered whether all  $\alpha$ -antagonists might be a cause of intraoperative difficulties. To assess the risk in a typical unselected population having phacoemulsification cataract surgery, we prospectively investigated 100 consecutive patients to assess the prevalence of the use of  $\alpha$ -antagonists and the possible relationship to perioperative problems.

Our results showed that 29 patients (29%) were on  $\alpha$ -antagonists: doxazosin, 11 patients; indoramin, 8; prazosin, 5; terazosin, 2; tamsulosin, 3; no patient was taking alfuzosin. Of these patients, 68% were women. No patient had bilateral surgery. The patients on  $\alpha$ -antagonists had been on the medication for at least 1 month.

Only 1 patient had a perioperative problem—a constricted pupil. No patient had IFIS. None of the 3 patients on Flomax had perioperative problems.

Patients who have cataract surgery are typically elderly and will usually be on some form of medication. It is important to appreciate that these can cause interactions that may affect the surgery. However, while  $\alpha$ -antagonists are widely prescribed in the population having cataract surgery, our pilot study did not show a significant link between these drugs and perioperative problems. In particular, taking Flomax does not always result in IFIS. The exact risk remains to be defined.

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1. Chang DF, Campbell JR. Intraoperative floppy iris syndrome associated with tamsulosin. *J Cataract Refract Surg* 2005; 31:664–673

**Reply:** The prospective study by Parmar and coauthors is interesting in that it showed little evidence of IFIS in 29 patients on systemic  $\alpha$ -blockers, including 3 on tamsulosin. This is consistent with the retrospective study reported in our paper, in which IFIS was not recorded in 11 patients taking systemic prazosin, terazosin, or doxazosin and was not always noted in patients on tamsulosin. However, we are aware of several anecdotal reports of IFIS occurring in patients on terazosin and doxazosin.

Many factors could variably affect the ability of a systemic  $\alpha$ -antagonist to cause IFIS. These would include the dosing and duration of treatment, the intraocular drug level achieved, and the relative affinity of the drug for the iris dilator muscle receptors. We previously noted that tamsulosin appears to have a stronger affinity for the  $\alpha$ -1A receptor than other  $\alpha$ -antagonists. This could affect both the duration and constancy of receptor blockade.

Finally, there are likely to be individual differences in one's susceptibility to developing IFIS. We believe that the association of IFIS and systemic  $\alpha$ -blockers will prove to represent a continuum of frequency and severity, depending on the drug and individual susceptibility. We agree that larger prospective studies will be necessary to better quantify the risk for IFIS.—*David F. Chang, MD, John R. Campbell, MD*

## Phaco rolling technique

We thank Güell et al.<sup>1</sup> for introducing this unprecedented phacoemulsification technique. The key to success is the free and unrestricted rotatory movement of the nucleus. With this technical prerequisite, this variant of phacoemulsification does not appear to be as surgically simple and safe as other techniques. The feasibility of this technique would be undermined by some cataract problems.

First, what would be the surgical strategy in conditions such as zonular dehiscence or dense posterior subcapsular cataract in which rotating the lens is difficult? Second, the usual position of the phaco tip during rotatory movement is at the capsulorhexis edge.<sup>1</sup> Theoretically, this has the advantage of curtailing the risk for endothelial and posterior capsule injury. However, the close proximity of the edge of the capsulorhexis to the phaco tip may increase the risk for anterior capsule damage during phacoemulsification. If undetected, an anterior capsule tear may extend across the equator, leading to a dropped nucleus or, later, to IOL decentration.<sup>2</sup> This is an important safety issue that should not be overlooked while performing the phaco rolling technique. The authors did not report any anterior capsule injury, and we are interested to learn the precautions for reducing or preventing this risk.

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1. Güell JL, Vazquez M, Lucena J, et al. Phaco rolling technique. *J Cataract Refract Surg* 2004; 30:2043–2045
2. Davison JA. Analysis of capsular bag defects and intraocular lens positions for consistent centration. *J Cataract Refract Surg* 1986; 12:24–129