of iris rigidity seen in IFIS, we clearly stated in our paper that this is a hypothesis. While acknowledging Kershner's point that the pharmacological mechanism for IFIS is unknown, we firmly stand by our conclusion that IFIS is associated with tamsulosin use and that "knowledge, anticipation, and recognition of this syndrome may lead to a lower incidence of surgical complications in these patients."—David F. Chang, MD, John R. Campbell, MD

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■ In their paper on the intraoperative floppy iris syndrome (IFIS), Chang and Campbell<sup>1</sup> raise awareness of an important clinical syndrome we have encountered on 2 separate occasions that proved challenging to complete safely; in hindsight, it was IFIS. In 1 case, we used Healon GV (Pfizer), which seemed to limit iris prolapse into the wound.

We are interested to know why the authors chose 1 to 2 weeks as a "wash-out" period before cataract surgery, as the authors state that even after long-term cessation, mild iris floppiness was seen. Because the urological symptoms (International Prostate Symptom Score)<sup>2</sup> and the urodynamics are taken into account before tamsulosin is started, we think the patient would benefit from liaison with the urologist or their general practitioner (GP) before stopping treatment or considering options for alternative nonselective  $\alpha$ -1 receptor antagonists such as prazosin, terazosin, or doxazosin. It may also be useful if IFIS could be recognized and published as a potential side effect of tamsulosin so urologists and GPs would have the option to suggest alternative treatment as a first choice in older patients who may be expected to have cataract surgery. It is perhaps too early to know whether alfuzosin (Uroxatral), a new nonsubtype-selective a-1 blocker launched in November 2003,3 is a safer alternative than tamsulosinassociated IFIS.

We congratulate the authors on bringing this new syndrome to light. The report will aid cataract surgeons in anticipating potential complications in patients with tamsulosin-associated IFIS. The potential operating difficulties should be considered before trainee surgeons perform cataract surgery in such patients.

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**Reply:** We thank Nguyen and coauthors for their comments. In fact, the FDA is planning to add precautions regarding IFIS to the labeling for tamsulosin. We commented on IFIS and other  $\alpha$ -1 blockers in our previous reply.

We believe there is a range of severity of iris pathology in IFIS. For this reason, a particular pharmacological or surgical compensatory strategy may not be uniformly effective. While one would have expected that a drug-induced syndrome would improve with cessation of the medication, this was not always true in our experience. Nonetheless, it seemed that stopping tamsulosin helped in some cases. Tamsulosin has a particularly strong affinity for the  $\alpha$ -1 receptor. The recommendation for a 1- to 2-week abstinence period reflected our suspicion that receptor binding might continue for some time beyond the disappearance of a plasma level of tamsulosin.

We agree that patients may wish to consult with their urologist regarding an alternative medication during this temporary period. Given the variability in IFIS severity, a randomized or bilateral eye trial would be needed to conclusively determine whether stopping tamsulosin is effective in managing this problem. Of course, there would be little value in stopping tamsulosin if one planned to use iris retractors or a pupil expansion device.—David F. Chang, MD, John R. Campbell, MD

## Antipsychotic agent as an etiologic agent of IFIS

Chang and Campbell's case series<sup>1</sup> describes a triad of characteristic intraoperative features to define the intraoperative floppy iris syndrome (IFIS). We faced a similar problem in June 2005, when a well-controlled schizophrenic man using Zuclopenthixol attended for cataract surgery. The triad of poor pupil dilation, billowing iris with intraocular fluid currents, and a propensity to iris prolapse was observed at an early stage. One of us (R.P.) had begun using intracameral phenylephrine to increase iris rigidity and dilation as soon as features of IFIS are identified. This simple maneuver dramatically changed iris behavior and enabled safe, controlled lens removal by coaxial phacoemulsification followed by IOL implantation in the capsular bag.

In Chang and Campbell's prospective series, IFIS occurred in 2.2% of cases; in 94.0% of these cases (15 of 16), patients were using or had been using the systemic  $\alpha$ -adrenergic blocker tamsulosin. They noted that sphincterotomies and mechanical pupil stretch were often ineffective in maintaining adequate pupil dilation.

Zuclopenthixol is a thioxanthene antipsychotic. It is thought to act by blocking dopamine  $D_2$  receptors in the brain, and its  $\alpha$ adrenergic blocking actions are well recognized.<sup>2</sup> Phenylephrine is an  $\alpha$ -adrenergic agonist known to act on the iris dilator. For intracameral use, it is prepared by diluting 7 drops of phenylephrine 2.5% preservative-free minims in 1 mL of balanced salt solution. Up to 1 mL is injected into the anterior chamber to prevent IFIS.

It is an attractive proposition to suggest IFIS is caused by blockade of iris  $\alpha$ -adrenoceptors and may be reversed perioperatively by an intracameral  $\alpha$ -agonist.

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