Intraoperative floppy iris syndrome associated with terazosin

Dear Editor,

A case series by Chang *et al*.[1] describes a triad of characteristic intraoperative features to define the intraoperative floppy iris syndrome (IFIS). We faced a similar problem in November 2006, when a 72-year-old man with primary open angle glaucoma and cataract was posted for combined surgery (phacoemulsification and trabeculectomy). The patient had a dense nuclear cataract with well-dilated pupil preoperatively. The procedure was a twin-site surgery in which cataract surgery was planned first. After capsulorrhexis and hydroprocedures when phacoemulsification was initiated we observed billowing and floppiness of iris. Later the pupil was constricted and the iris started prolapsing through the properly constructed corneal tunnel and side port incisions and the phacoemulsification was completed with great difficulty. Postoperatively when we asked the patient about any systemic therapy for benign prostatic hypertrophy (BPH), he replied positively with a drug terazosin (hytrin) for the past five years.

In a prospective series by Chang *et al*,[1] IFIS occurred in 2.2% of cases; in 94% of these cases (15 of 16), patients were using or had been using the systemic specific alpha-adrenergic blocker tamsulosin. In the same article, in a retrospective case series the authors have reported that the syndrome was noted intraoperatively in 63.0% (10/16) of the tamsulosin patients but in none of the 11 patients on other systemic a-1 blockers like prazosin, terazosin or doxazosin. Almost all the patients on tamsulosin had IFIS as they have a 24-fold greater affinity for alpha-1A than the non-selective alpha-blockers like terazosin. Similar findings were also observed with alfulosin[2] and antipsychotic therapy zuclopenthixol.[3] Chadha *et al*.[4] have reported that 57% of patients receiving tamsulosin showed features of IFIS compared with 1% of the non-tamsulosin group who had IFIS. Recently, a prospective case series by Oshika *et al*.[5] also reported that there was no IFIS in patients on terazosin. To our knowledge this is the fist report of IFIS in a patient on terazosin. Even though it is rare for IFIS to occur in patients on terazosin, we believe the phenomenon in our patient could be due to the long-term therapy (five years).

On personal communication with a few urologists in south India, we have come to know that the alpha-blockers like terazosin, tamsulosin and the newer one alfuzosin are widely used in patients with BPH with urinary incontinence and we can expect more patients in the future presenting with IFIS in India.

Various ways have been reported to overcome the problem of IFIS, like preoperative atropine,[6] intracameral epinephrine, healon 5, iris hooks, pupil expansion rings and bimanual phacoemulsification. But in IFIS, the floppy iris behavior is frequently not recognized until hydrodissection is performed. In this event it may be too late to safely place iris hooks or pupil expansion rings. Therefore, the ability to predict IFIS cases in advance may allow the surgeons to alter their usual method of managing small pupils. So we have to be aware of this syndrome and make it mandatory to ask our patients about the history of any therapy for BPH during routine preoperative workup.

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