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# Intraoperative floppy iris syndrome associated with quetiapine

Intraoperative floppy iris syndrome (IFIS) consists of a triad of flaccid and billowing iris, iris prolapse through the surgical incisions, and progressive intraoperative pupil constriction. It is associated with the use of systemic α1-adrenoceptor (AR)-blocking agents, including tamsulosin, terazosin, doxazosin, and labetalol.

We present a new case of typical IFIS occurring in a patient taking quetiapine, one of the most commonly used antipsychotic agent approved for the treatment of schizophrenia and bipolar disorder.

### Case report

A 59-year-old woman with Alzheimer's disease presented with cataract in both eyes. The patient's history did not reveal any other systemic diseases, eye trauma, or previous ocular surgery. Preoperatively, the pupil dilated to 5.0 mm.

During the phacoemulsification procedure, characteristics of IFIS developed. Miosis and floppy iris responded moderately to intracameral adrenaline. Phacoemulsification was completed carefully and intraocular lens was successfully implanted into the capsular bag.

While reviewing the patient's medication, we noticed that she had been on memantine 10 mg/day for 3 years for dementia and quetiapine 100 mg/day for 1 year for dementia-associated psychosis.

# Comment

The patient was using two different drugs: an N-methyl-D-aspartate (NMDA) postsynaptic receptor antagonist, memantine, and an antipsychotic, quetiapine. Memantine has been shown to block the effects of glutamate at NMDA receptors and has no action on αARs. Thus, the most likely agent for developing IFIS was quetiapine in this patient.

Antipshotic zuclopenthixol was reported to be associated with IFIS.<sup>2</sup> We were also previously faced with a similar problem with chlorpromazine, which is a typical antipsychotic agent.3 Typical antipsychotics have been largely supplanted by the atypicals because of the latter's greater safety and tolerability. These agents produce extensive blockade of serotonin (5-HT)<sub>2A</sub> receptors, stimulation of 5-HT<sub>1A</sub> receptors, and blockade in dopamine D<sub>2</sub> receptors. They also have an antagonistic effect on α1-ARs, which is especially prominent with quetiapine.<sup>5</sup> Its use was previously reported to be associated with incomplete IFIS.5

In conclusion, surgeons should keep in mind the possibility of IFIS in patients using antipsychotics with prominent α1 receptor-blocking activity. Careful history must be elicited to detect the current or past use of these commonly prescribed group of drugs.

# Conflict of interest

The authors declare no conflict of interest.

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Eye (2013) 27, 673; doi:10.1038/eye.2013.40; published online 15 March 2013

## Supraciliary space breast metastasis

The following case describes an unusual site of metastasis within the eye.

# Case report

A 47-year-old female presented with photopsia in her right eve. She had a previous diagnosis of grade 2-invasive ductal carcinoma (not otherwise specified) of the right breast in 2007 with no evidence of metastasis. The carcinoma was positive for oestrogen and progesterone receptor and negative for HER2. Treatment included wide local excision, axillary node clearance, and adjuvant radiotherapy. Her visual acuity in both eyes was normal. We identified a peripheral nonrhegmatogenous superior retinal detachment in her right eye associated with a mass in the ciliary body area measuring 18 mm by 4 mm on ultrasonic bio-microscopy (Figure 1a).

An open flap biopsy of the right eye was performed. An amelanotic gelatinous mass was found, which was distinct and freely mobile from the overlying sclera and underlying pigmented ciliary body, confirming the supraciliary location of the lesion. Histology showed fragments of a carcinoma with glandular differentiation, strongly positive for pan-cytokeratin marker AE1 AE3, cytokeratin 7, focally positive for gross cystic disease fluid protein-15 (GCDFP15) and almost every nucleus positive for oestrogen receptor (Figures 1b-d). The tumour was HER2 negative (not shown). The features were those