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Sir,

Should we anticipate intraoperative floppy iris syndrome (IFIS) even with very short history of tamsulosin?

Intraoperative floppy iris syndrome (IFIS) is characterised by a triad of intraoperative features including a flaccid and undulating iris stroma, a propensity to prolapse towards corneal incisions and progressive intraoperative pupillary constriction associated with oral tamsulosin intake.¹ Tamsulosin, used most commonly for benign prostate hypertrophy has high bioavailability and a long half-life. It has selectivity for α -1A type adrenoreceptor, predominant in base of bladder and prostate smooth muscle.² Studies have found occurrence of IFIS in patients started on tamsulosin for 9 months to 3 years.³ A minimum duration of 3 months was noted in one study.³ We report a case of probable IFIS following a minimum of 2 days intake of tamsulosin.

Case report

A 70-year-old male patient was due for routine cataract surgery. There was no past history of ocular trauma/ surgery or any significant refractive error. He had complete preoperative assessment 4 weeks before operation. He had a systemic history of peptic ulcer and chronic obstructive pulmonary disease and the only other drug history was oral lansaprazole and beclomethasone inhaler. On operative day, topical mydriatic were instilled twice in operative eye (1% cyclopentolate and 2.5% phenylepinephrine) 20 min apart. After 45 min inadequate pupillary dilation was observed. Sub-Tenon's block with 2% lignocaine (3 ml) was given. No preanaesthetic medication was used. Intraoperative bellowing and flaccid nature of iris and iris prolapse through the corneal section were noted suggesting probable IFIS. However, standard phacoemulsification and intraocular lens implantation were completed without any significant complication. Postoperatively, on direct questioning the patient mentioned that he was started on FLOMAX (tamsulosin), for the first time, only 2 days before the day of surgery.

Comment

Tamsulosin is a uroselective drug, targeting α-1A-adrenoreceptor.⁴ Human dilator iris muscle also has α -1 adrenoreceptor. It is hypothesised that tamsulosin blocks this receptor by constant blockade to cause disuse atrophy.¹ IFIS has been noted even in patients who had stopped tamsulosin 2 years before cataract surgery.⁵ However, none of the studies have established a minimum duration of intake of tamsulosin leading to IFIS. Our case report suggests a possibility of the IFIS occurrence after 2 days of tamsulosin intake. Given the short onset of action of 6-7 h, high bioavailability, and the long half-life of tamsulosin, there is a strong possibility in our case that the iris dilator muscle had only suffered a recent receptor blockade without muscular atrophy, resulting in IFIS. Hence, according to the current belief, IFIS is caused by the disuse atrophy of dilator iris muscle due to constant receptor blockade; there is also a possibility that IFIS can result from the receptor blockade alone. However, a larger case series/study is warranted to establish the fact.

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