News Release

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Ophthalmologists Advise That Alpha-blockers Can Complicate Cataract Surgery

Ophthalmologists encourage physicians treating benign prostatic hyperplasia to consider non-selective alpha-blockers first for patients with known cataracts

SAN FRANCISCO – April 7, 2014 – The American Society of Cataract and Refractive Surgery (ASCRS) and the American Academy of Ophthalmology (Academy) have jointly issued an educational update about cataract surgery complications associated with systemic alpha-blockers, based on two new studies published in ophthalmic medical journals this month.

Cataract surgery is one of the most common surgeries in the U.S., with more than 3 million procedures performed annually. Alpha-blockers, which relax the prostatic and bladder wall smooth muscle, are the most frequently prescribed medications for the lower urinary tract symptoms of benign prostatic hyperplasia (BPH). Because these drugs also inhibit and disable the iris dilator muscle, alpha-blockers commonly complicate cataract surgery by causing sudden intraoperative iris prolapse and pupil constriction, or what is termed Intraoperative Floppy Iris Syndrome (IFIS). IFIS is associated with a higher surgical risk that may include sight-threatening complications and iris damage significant enough to cause glare and photophobia. One of the largest prospective studies to date found that 75% of patients taking tamsulosin – the most frequently prescribed alpha-blocker for BPH – and undergoing cataract surgery had either moderate to severe IFIS.

Tamsulosin is selective for the alpha-1A receptor that predominates in both the iris dilator and prostatic smooth muscle. Non-selective alpha-antagonists also block the alpha-1B receptor found in vascular smooth muscle. All alpha-blockers can impair pupil dilation and cause IFIS. However, the preponderance of evidence indicates that tamsulosin is more likely to cause severe IFIS than non-selective blockers such as terazosin, doxazosin and alfuzosin. A new study published in the April issue of Ophthalmology, the journal of the Academy, compared the relative frequency and severity of IFIS with tamsulosin and alfuzosin – two alpha-blockers with reported lower cardiovascular risk. This multicenter, prospective, masked and controlled study found that tamsulosin was more likely to cause severe IFIS.

IFIS generally cannot be prevented by stopping the alpha-blocker preoperatively, and there is evidence to suggest that permanent iris dilator muscle atrophy may result from drug accumulation in the iris.
pigment granules. Although the surgery is more challenging, IFIS is usually successfully managed using adjunct surgical techniques if the surgeon is forewarned by the patient’s medication history.

Results from a survey of primary care physicians published in the April issue of the *Journal of Cataract and Refractive Surgery*, the journal of ASCRS, showed that only 35 percent of the physicians surveyed knew about alpha-blockers affecting cataract surgery and only half of them (17%) factored this into treatment considerations. The vast majority (96%) desired more information on this association.

ASCRS and the Academy ask prescribing physicians to consider whether the patient has cataracts and may need surgery when initiating non-emergent alpha-blocker treatment. Patients with known cataracts may wish to consider earlier surgery or starting with a non-selective alpha-blocker first. Some might seek the advice of their ophthalmologist on these issues. There are no other ocular adverse effects of alpha-blockers and no special considerations are needed for patients who have already had cataract surgery.

“Considering the prevalence of both cataracts and benign prostatic hyperplasia, many ophthalmologists worry about increasing numbers of challenging IFIS cases as our population ages,” said ophthalmologist David F. Chang, M.D., co-author of both studies and immediate past president of ASCRS. “It is challenging for all physicians to stay current with a burgeoning literature of medications and their side-effects and complications. ‘Managing the side effects and complex interactions of a lengthy medication list is challenging. We welcome the opportunity to be a resource for physicians who prescribe alpha-blockers, in an effort to reduce cataract surgery complications for our mutual patients.’”


**About ASCRS**
The American Society of Cataract and Refractive Surgery is an international educational society with more than 9,000 members. Its mission is to advance the art and science of ophthalmic surgery and the knowledge and skills of ophthalmic surgeons by providing clinical and practice management education and by working with patients, government, and the medical community to promote the delivery and advancement of high-quality eye care. [www.ASCRS.org](http://www.ASCRS.org).

**About the American Academy of Ophthalmology**
The American Academy of Ophthalmology, headquartered in San Francisco, is the world's largest association of eye physicians and surgeons — [Eye M.D.s](http://www.aao.org) — with more than 32,000 members worldwide. Eye health care is provided by the three “O’s” – ophthalmologists, optometrists, and opticians. It is the ophthalmologist, or Eye M.D., who has the education and training to treat it all: eye diseases, infections and injuries, and perform eye surgery. For more information, visit [www.aao.org](http://www.aao.org). The Academy's EyeSmart® program educates the public about the importance of eye health and empowers them to preserve healthy vision. EyeSmart provides the most trusted and medically accurate information about eye diseases, conditions and injuries. OjosSanos™ is the Spanish-language version of the program. Visit [www.geteyesmart.org](http://www.geteyesmart.org) or [www.ojossanos.org](http://www.ojossanos.org) to learn more.