

Pseudoallergic conjunctivitis induced by tamsulosin, a selective alpha-1 adrenergic receptor antagonist

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Clinical Implications

- Tamsulosin is a medication used frequently in patients with benign prostatic hypertrophy. In patients receiving tamsulosin with new-onset conjunctivitis, the allergist should consider tamsulosin as an etiology. Oral challenge can be confirmatory.

TO THE EDITOR:

Tamsulosin is a commonly used medication for the treatment of benign prostatic hypertrophy (BPH) and medical expulsion of distal ureteral stones. Its mechanism of action is to antagonize alpha_{1A}-adrenoreceptors. Tamsulosin is a well-tolerated medication with few adverse effects when taken as directed.¹ The most common adverse effects include orthostatic hypotension, headache (19.3%), dizziness (14.9%), abnormal ejaculation (8.4%), and nasal congestion/rhinorrhea (13.1%). Interestingly, several uncommon ocular adverse effects have been described at unknown incidences including blurred vision, decreased visual acuity, amblyopia, and the sight-threatening intraoperative floppy iris syndrome.¹⁻³ We report the first case of persistent severe nonpurulent conjunctivitis secondary to tamsulosin diagnosed through careful history and open drug challenge.

Our patient is a 59-year-old white man referred to the allergy clinic by an ophthalmologist because of a chronically irritated right eye. Medical history was remarkable for BPH, rosacea, hypercholesterolemia, allergic rhinitis (successfully treated with immunotherapy), and recurrent herpes simplex virus stomatitis. Family and social history were unremarkable. Medications included aspirin, acyclovir, fluticasone nasal spray, vitamin D, minocycline, simvastatin, and tamsulosin. Symptoms started 1 year before allergy evaluation and included conjunctivitis, ocular pain, itching, and profuse clear tearing. He did not experience vision loss or visual acuity change, pain with ocular movement, or orbital/periorbital cellulitis. His ophthalmologist treated him with tobramycin/dexamethasone eye drops for 1 week, and his symptoms resolved quickly on at least 3 occasions. However, each time the eye drops were discontinued, the symptoms returned within days. Ocular antihistamines were not beneficial. In addition to ophthalmology, he was evaluated by Otolaryngology for possible chronic sinusitis leading to eyelid edema and nasolacrimal duct obstruction as an etiology for his ocular complaints. A sinus computed tomograph did not reveal acute or chronic sinusitis. Ultimately, his ophthalmologist recommended a nasolacrimal duct bypass procedure to improve tear clearance and relieve the symptoms, and referred him to a specialist. This specialist determined that there was no ocular or nasolacrimal abnormality, and recommended allergy evaluation given his history of allergic rhinitis.

During the initial allergy evaluation, he revealed that he began taking 0.4 mg tamsulosin daily at approximately the same time that his ocular symptoms began 1 year before our evaluation. In addition, he described bilateral symptoms although the right eye symptoms were always worse than the left eye symptoms. He could not discern whether the medication ingestion worsened the symptoms. There was no obvious reason for the laterality of his symptoms although both eyes were involved. The patient denied any symptoms of anaphylaxis including dizziness, hypotension, urticaria, angioedema, difficulty breathing, wheezing, vomiting, or diarrhea. He does not wear contact lenses for vision correction. We recommended a trial of discontinuation of the tamsulosin given the temporal relationship of the onset of symptoms. Cessation of tamsulosin resulted in complete resolution of the conjunctivitis, pain, and drainage within 1 week. To ascertain cause and effect, a drug challenge was performed 1 month after discontinuation. Approximately 20 minutes after ingestion of 0.4 mg of tamsulosin (standard daily dose), the patient experienced symptoms of pressure in his right eye without evidence of conjunctivitis or drainage. At 40 minutes into the drug challenge, he experienced right eye and maxillary pain, ocular itching, and scleral injection. On physical examination, there was marked bilateral scleral injection with dilated scleral vessels right worse than left. After 1 hour, he had developed severe tearing of his right eye. During the drug challenge, his vital signs remained normal without evidence of anaphylaxis. These findings were compatible with a unique pseudoallergic reaction secondary to tamsulosin. We recommended continued avoidance of tamsulosin, and use of an alternative medication for his prostatic hypertrophy.

This case illustrates a unique and previously unreported adverse reaction to tamsulosin, a popular BPH medication. Although not an anaphylactic reaction, this drug effect caused significant morbidity for the patient. Since the discontinuation of tamsulosin, he has not experienced relapse of his ocular complaints. Tobramycin/dexamethasone eye drops were efficacious most likely due to the dexamethasone component providing a potent anti-inflammatory effect and probable vasoconstrictor effect. Our case highlights the importance of a thorough history and thoughtful use of diagnostic ingestion challenge.⁴ Allergists should be aware that in addition to other adverse effects associated with tamsulosin, an ocular eruption is possible.

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