

WY- DUR

Wyoming Drug Utilization Review Board

Dept. 3375
1000 E. University Avenue
Laramie, WY 82071

Debra Devereaux, R.Ph., M.B.A.

DUR Manager

William Harrison, M.D.

Chair

George Zaharas, R.Ph.

Vice Chair

August 1, 2005

Dear Prescriber,

Our database shows that you have prescribed topiramate (Topamax®). There have been multiple case reports of topiramate being associated with an ocular syndrome. Topiramate may cause acute myopia or secondary angle closure glaucoma. Symptoms typically occur rapidly (within the first month of beginning topiramate). Patients have an acute onset of decreased visual acuity and/or ocular pain. Upon examination, patients may have myopia, redness, shallowing of the anterior chamber and elevated ocular pressure, with or without pupil dilatation.¹

While the mechanism of the ocular syndrome with topiramate is not fully elucidated, a potential mechanism theorizes that topiramate may cause lenticular swelling, forward rotation of the lens-iris diaphragm, ciliary body swelling causing increased curvature of the lens surfaces and spasm of accommodation.²

As you know, elevated intraocular pressure may lead to permanent vision loss or other sequelae. If this ocular syndrome develops, the primary treatment is rapid discontinuation of topiramate.¹ For angle closure glaucoma, case reports discuss also using additional medical and pharmaceutical treatments to reduce the intraocular pressures until intraocular pressures return to normal.³ In 2004, Fraunfelder proposed the following guidelines for management of topiramate-associated acute, bilateral, secondary angle-closure glaucoma.²

-
- Consult the prescribing physician. Topiramate should be discontinued as soon as possible. Decreasing the dosage more than 50 mg/day may cause other, systemic adverse effects. In most cases, intraocular pressure decreases rapidly after the drug is stopped.
 - Institute maximum medical therapy, including oral medications and aqueous suppressants.
 - Laser iridotomy or peripheral iridectomy is probably not beneficial if the glaucoma is only associated with topiramate therapy.
 - Topical miotics are probably contraindicated in this condition, because their use may precipitate a relative pupillary block.
-

Thank you for your continued assistance in monitoring patients for this rare but serious adverse reaction.

Sincerely,

Debra S. Devereaux

Debra S. Devereaux, M.B.A., F.A.S.H.P.
WY-DUR Program Manager

References

1. Hulihan J. Important drug warnin g. 2001 Sept 26. Raritan, NJ; Ortho-McNeil Pharmaceutical, Inc. available from: URL: <http://www.fda.gov/medwatch/SAFETY/2001/topamax.htm>.
2. Fraunfelder FW, Fraunfelder FT, Keates EU. Topiramate-associated acute, bilateral, secondary angle-closure glaucoma. *Ophthalmology* 2004;111:109-111.
3. Rhee DJ, Goldberg MJ, Parrish RK. Bilateral angle-closure glaucoma and ciliary body swelling from topiramate. *Arch Ophthalmol* 2001;119:1721-1723.