Topiramate Induced Serious Ocular Side Effects

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Sir,

Topiramate is an anticonvulsant drug and is commonly prescribed by physicians for migraine prophylaxis, bipolar disorders and neuralgic pain.[1] Common side effects of this drug are diarrhea, weight loss, hypersomnia, cognitive and behavioral disorders and renal stones. This drug can cause sudden dimness or blurring of vision by various ocular mechanisms[2-3] and these ocular side effects are not mentioned in standard text-books of medicine or pharmacology.

We have come across four young female patients in last two years who developed sudden dimness of vision after taking topiramate drug for 7 to 10 days. All patients were having history of chronic recurrent headache and it was diagnosed as a migraine after complete neurological examination and relevant neuroimaging. Two patients complained dimness of vision after 7 days of starting topiramate 25 mg daily and other two after 10 days of treatment with topiramate dose of 25 mg daily for 7 days followed by 50 mg for another 3 days. All patients were referred to an ophthalmologist for work up of the dimness of vision and topiramate was discontinued. Acute myopia secondary to bilateral acute angle closure glaucoma (AACG) (? topiramate - induced) was provisional cause in all patients. Their vision returned to normal within seven days of stopping topiramate.

Our all patients suffered dimness of vision after taking topiramate for 7 to 10 days and it resolved completely after stopping the drug. This side effect has female preponderance or not, require further large-scale study. By reviewing literature, it was found that topiramate can cause serious ocular side effect like AACG, acute myopia, suprachoroidal effusion, scleritis, periorbital edema and oculogyric crisis.[3] Topiramate causes ciliary body oedema or ciliochoroidal detachment which leads to forward rotation of ciliary body and displacement of the iris. It closes the anterior chamber angle precipitating an attack of AACG. Swelling of the lens may also contribute to the shallow anterior chamber. But these side effects usually manifest in a dose of 200 or more of topiramate per day and after 4 to 6 weeks of therapy.[1] Our study patients developed such ocular side effect with a dose of less than 50 mg per day and with smaller duration of treatment. So, the physician should counsel the patient regarding possible ocular side effects of topiramate and to be warned to stop the drug immediately if any ocular symptoms develop. If patient is not instructed for possible ocular side effect of topiramate, he may have to undergo extensive and costly investigations for a vision problem. If the drug is not discontinued timely, permanent vision damage can occur.

References

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