



Oral acetazolamide (Diamox) is known to lower intraocular pressure, but it can very rarely cause acute bilateral angle closure with severely elevated intraocular pressure

The Science behind the Tip

The mechanism is thought to be an idiosyncratic reaction to sulphonamides, similar to that which can occur with drugs such as topiramate. The pathogenesis involves ciliary body oedema or choroidal effusion causing anterior rotation of the ciliary body and anterior displacement of the lens-iris diaphragm.

Peripheral iridotomy is not a beneficial treatment, as the mechanism of angle closure is not pupil block. Atropine is useful to rotate the ciliary body and pull the lens back. Intravenous mannitol shrinks the vitreous which may also be beneficial. Systemic steroids can also be considered, to treat the inflammation which may contribute to the pathogenesis (1-4).

References

- 1) Fan J, Johnson, DH, Burk, RR. Transient myopia, angle-closure glaucoma, and choroidal detachment after oral acetazolamide. *Am J Ophthalmol.* 1993;115(6):813-814.
- 2) Lee GC, Tam CP, Danesh-Meyer HV, et al. Bilateral angle closure glaucoma induced by sulphonamide-derived medications. *Clin Experiment Ophthalmol.* 2007;35(1):55-58.
- 3) Parthasarathi S, Myint K, Singh G, et al. Bilateral acetazolamide-induced choroidal effusion following cataract surgery. *Eye (Lond).* 2007;21:870-872.
- 4) Rhee DJ, Ramos-Esteban JC, Nipper KS. Rapid resolution of topiramate-induced angle-closure glaucoma with methylprednisolone and mannitol. *Am J Ophthalmol* 2006;141(6):1133-1134.