Reference

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Sir,

The maximum effect of oral Diamox occurs at 2 h but the intravenous Diamox is much faster. If no reduction in intraocular pressure has occurred an hour and a half after the intravenous Diamox then it is not unreasonable to consider further treatment at that stage. After all this condition is extremely painful with potential to damage the optic nerve, and a rapid reduction in intraocular pressure from the very high levels exhibited by some patients is desirable.

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Sir,

We read with interest the editorial[1] and article[2] on the immediate management of acute angle-closure glaucoma (AACG). We would, however, like to propose an alternative: argon laser peripheral iridoplasty (ALPI).[3,4] ALPI was traditionally employed only when medications failed to control intraocular pressure (IOP),[5] but we found it effective and safe as an initial treatment.

Immediate ALPI may be more effective than conventional medications in lowering IOP. Employing the same criteria of 'satisfactory IOP control' proposed by Choong *et al*.[2] we achieved satisfactory IOP control in 83.3% of AACG patients, at just 15 min after ALPI.[3,4] At 120 min after ALPI we achieved satisfactory IOP contol in 100% of patients. We have, however, excluded patients presenting more than 48 h from the onset of symptoms.

We have also documented, using ultrasound biomicroscopy, re-opening of the closed drainage angle immediately following ALPI.[3] By opening up the angle promptly, we would expect a lower chance of a patient developing peripheral anterior synechiae, and subsequently chronic angle-closure glaucoma.

Immediate ALPI in the management of AACG appears to be a safe procedure. It will certainly spare patients the systemic side effects of acetazolamide, glycerol or mannitol. We have followed up the 18 reported cases for 2 years by now, and so far we have not come across any patient with corneal decompensation or scarring, iris atrophy or necrosis, or other complications that could have arisen from the ALPI. We have also shown, in another study, that halving the quantity of ALPI still yields IOP-lowering results comparable to the conventional 360° treatment.[6] By applying ALPI to only 180° of the peripheral iris, the risk of complication from ALPI is further lowered.

After ALPI, all patients would still require a peripheral iridotomy to break the pupillary block, and to avoid recurrent attack of acute glaucoma. Most commonly, the peripheral iridotomy has to be delayed until the cornea recovers from the acute attack. With the use of immediate ALPI, all corneas clear within 2 h,[3,4] allowing a very early peripheral iridotomy to be performed.

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References

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