

⊗ **Laser peripheral iridotomy does not usually result in long-term intraocular pressure control in patients with chronic angle-closure glaucoma**

### ***The Science behind the Tip***

The initial treatment of chronic angle-closure glaucoma is to undertake a laser peripheral iridotomy (PI) to prevent pupillary block. However, recurrent subacute episodes and chronicity may have caused extensive angle closure secondary to peripheral anterior synechiae (PAS). In addition, other mechanisms of angle closure often play a role in these patients: a relative anterior lens position, peripheral iris crowding and plateau iris configuration (secondary to anterior rotation of the ciliary processes) and as a consequence a laser PI does not usually result in long-term intraocular pressure (IOP) control<sup>1</sup>. Rosman *et al* reported that 41% of patients subsequently needed topical medication and 53%-59% iridoplasty or trabeculectomy<sup>2</sup>.

Presenting factors that determine whether a patient will require surgery to control the IOP include: presenting IOP (> 35 mm Hg), degree of permanent PAS (> 2 quadrants) and severity of glaucomatous damage (> 0.6 cup:disc ratio)<sup>3</sup>.

### ***References***

1. Amerasinghe N, Aung T. Angle-closure: risk factors, diagnosis and treatment. *Prog Brain Res.* 2008;173:31-45.
2. Rosman M, Aung T, Ang LP et al. Chronic angle-closure with glaucomatous damage: long-term clinical course in a North American population in comparison with an Asian population. *Ophthalmology.* 2002;109:2227-31.
3. Salmon JF. Long-term intraocular pressure control after Nd YAG laser iridotomy in chronic angle-closure glaucoma. *J Glaucoma.* 1993;2:291-96.