Tip of the Month

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In patients with pigment dispersion syndrome, YAG laser peripheral iridotomy can reduce the risk of raised intraocular pressure (IOP) in some patients, but does not prevent glaucoma

The Science behind the Tip

Pigment dispersion syndrome arises from posterior bowing of the iris secondary to reverse pupil block. This causes disruption of the iris pigment epithelium secondary to intermittent friction between the back of the iris and the lens zonules. In some patients this results in excessive pigment deposition in the trabecular meshwork, leading to a rise in IOP and secondary glaucoma in some patients.

Although laser peripheral iridotomy (PI) prevents reverse pupil block, its role in the treatment of pigment dispersion syndrome is not clear[1]. Topical phenylephrine 10 % provocation can identify those eyes at greatest risk of developing elevated IOP[2]. In these patients a laser PI significantly reduces the rate of IOP elevation. However, laser PI does not appear to prevent progression to glaucoma in the short-term[3].

References

1) Michelessi M, Lindsey Peripheral iridotomy for pigmentary glaucoma (Review) Cochrane Database Syst Rev 2016.

2) Gandolfi; SA, Ungaro N, Tardini MG et al. A 10-year follow up to determine the effect of YAG laser iridotomy on the natural history of pigment dispersion syndrome: a randomised clinical trial. JAMA Ophthalmol 2014; 132: 1433-8.

3) Scott A, Kotecha A, Bunce C et al. YAG laser peripheral iridotomy for the prevention of pigment dispersion glaucoma: a prospective randomised controlled trial. Ophthalmology 2011; 118: 468-73.

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