

## EDITORIAL

This edition of 'Eye' carries a report by McAllister and O'Brien of their encouraging experience of Nd:YAG laser transscleral cyclocoagulation. There have been many previous techniques which have attempted by physical destruction of the ciliary epithelium to reduce aqueous secretion and hence intraocular pressure. Diathermy, cryotherapy, transpupillary laser, endolaser, ultrasound and now transscleral laser have been used but only cyclocryotherapy was practised widely.

Reduction of aqueous secretion by medical therapy such as beta blocker eye drops or systemic carbonic anhydrase inhibitors is effective and controlled. The same cannot be said of physical measures to achieve the same end. There seems to be a very narrow line between residual pressure elevation and hypotonia. Perhaps if treatment does not totally destroy the ciliary epithelium, with resulting phthisis, regeneration will eventually cause recurrence of the glaucoma. We must therefore examine the long term rather than short term results.

As the authors point out, not all reports of Nd:YAG laser cyclocoagulation have been favourable but the optimum energy level or treatment pattern may not yet have been identified. The method, however, is refined to the extent that other workers will start to use it. It is important to understand that the Nd:YAG laser equipment must be capable of being uncoupled from its Q switch and operated in a free-running mode. This is feasible with the Lasag Microrupter II and subsequent models but may not be so on the other machines in common use. If treatment is attempted in Q switched mode the sclera may be perforated. Surgeons without suitable equipment should wait for further evidence of the practical value of the technique or refer cases to a colleague with the equipment and interest.

There is no doubt that better treatment for neovascular, secondary and other intractable forms of glaucoma is required. Silicone rubber tube drains have gained widespread acceptance and stabilise the intraocular pressure in more than half the cases previously uncontrollable. Thus a technique for re-establishing aqueous drainage in these eyes has evolved to the point of general clinical application. If the experience of McAllister and O'Brien is confirmed in the long term, we may have a method of surgical reduction of aqueous production to complement tube drains. To date Nd:YAG laser cyclocoagulation seems at least as effective as cyclocryotherapy. Longer term results will be awaited with interest.

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