Iridocyclo-retraction in glaucoma secondary to essential iris atrophy

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The ocular hypertension in essential (progressive) atrophy of the iris has a bad prognosis. "The glaucoma which develops is very recalcitrant to any form of treatment, so the usual end-result is blindness" (Duke-Elder and Perkins, 1969). The rise in the intraocular pressure results from the formation of peripheral anterior synechiae. This usually annihilates the results of any attempt to restore the outflow of the intraocular fluid. Several authors have reported satisfactory results with different types of surgery, but on the whole the conventional methods do not seem to be sufficiently reliable.

The procedure of iridocyclo-retraction (Krasnov, 1969, 1971) was developed for those types of angle-closure glaucoma with excessive synechia formation in the angle. It seemed logical to extend its use to essential atrophy of the iris.

The authors' experience embraces the results of five such operations performed during the last 2 years. The technique of the procedure has been described elsewhere (Krasnov, 1969, 1971). Each scleral pedicle is implanted into the chamber angle as shown in Fig. 1. The gonioscopic appearance after both pedicles have been placed is shown in Fig. 2. No particular modification of the operation is necessary for essential iris atrophy.

FIG. 2 *Gonioscopic photograph of implanted scleral pedicles*

FIG. 1 *Iridocyclo-retraction after Krasnov (1969, 1971)*

It should be remembered, however, that in this disorder the goniosynechia may be extensive and tenacious and that operative and postoperative haemorrhage may be troublesome. Pressure on the eye after the separation of the iris root from the filtering region should be maintained for longer than usual. If much blood appears in the anterior chamber, air should be injected before clotting occurs, *i.e.* as quickly as possible. This gives better results than irrigation or massage.

By the end of all our operations there was no blood in the anterior chamber, but a hyphaema always appeared during the next 2 or 3 days. This cleared, but more slowly than usual.

Five operations on the eyes of four patients (one case was bilateral) have so far been performed. The immediate surgical aim was always achieved, *i.e.* postoperatively the angle was opened between the implanted pillars of scleral tissue. The visual acuity and the visual field have in all cases been maintained.

The intraocular pressure was reduced to normal by the operation in four of the five eyes. In the fifth eye the pressure rose again by the end of the second month after surgery; in this case the angle remained open between the auto-implants, and the rise in pressure was considered to be due to trabecular pathology. The patient was admitted to hospital for the procedure of trabeculectomy by the method of Cairns (1972) (over the region of the opened angle). Eventually, however, the pressure was normalized by acetazolamide 0.25 g. daily and so far further surgery has been postponed.

The present communication is to be considered a preliminary one. The follow-up period in these cases ranges from 2 years to 6 months. No doubt the process of disintegration of the iris will continue in these cases, and it is impossible to predict the effect of this on the intraocular pressure in the presence of new-formed channels of outflow. Nevertheless, the results achieved seem to offer some possibility, at least for further investigation, in the management of a very grave disease.

References

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