Correspondence

Retinal detachment

SIR, I read with interest the article by Ho and Tolentino.¹ The probable causal element of the 14 detachments reported post capsulotomy is not emphasised in this article. It would be nice to know how and when the posterior capsulotomies were done in relation to the retinal detachments. As others have reported, and our experience supports, neodymium: YAG laser posterior capsulotomy can be associated with rhegmatogenous retinal detachment.²

In response to the authors' statement in the concluding paragraph, ECCE (and PC-IOL) probably does minimise the incidence of postoperative retinal detachment, but posterior capsulotomy probably increases the likelihood of same.

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References

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SIR, Extracapsular cataract extraction (ECCE) and posterior chamber intraocular lens (PCIOL) implantation are becoming the procedure of choice among cataract surgeons. Many surgeons performing this type of surgery on a regular basis would share the same concern and interest with Dr Hall about the causal relationship of posterior capsulotomy and retinal detachment.

As stated in our article,¹ we were not the primary surgeons for any of the capsulotomy operations, and the nature of a retinal referral practice made it difficult to obtain details of the circumstances surrounding the capsulotomies in all 14 cases in our report. However, in four of six cases (case 3, 7, 10, and 11), the retinal detachment was detected within two weeks of the posterior capsulotomy. The temporal relationship in these cases would lead one to suspect that the detachment might have been precipitated by the capsulotomy. Furthermore, in cases 10 and 11 vitreous gel was observed to herniate anteriorly through the capsulotomy around the IOL into the anterior chamber. Although the preoperative finding of vitreous gel in the anterior chamber in front of the IOL has been reported to be associated with a poor prognosis,² the retinal detachments in both of these cases were successfully repaired.

The pathogenetic mechanism of pseudophakic retinal detachment following posterior capsulotomy is still uncertain. In the two cases where there was forward movement of the vitreous gel into the anterior chamber one might speculate that the anterior displacement of the vitreous mass would increase peripheral vitreous traction on the vitreous base resulting in retinal breaks.^{3,4} But in the majority of our cases, and as observed by others,⁵ the absence of anterior movement of the vitreous in front of the

iris plane would suggest an alternative mechanism for the detachment. It is generally difficult to separate visually the anterior hyaloid face from the opacified posterior capsule under the operating microscope or the slit-lamp biomicroscope. Consequently, the anterior hyaloid face is frequently violated during the posterior capsulotomy procedure. It is possible that the broken anterior hyaloid surface allows anterior movement of proteins and macromolecules from the vitreous gel, resulting in fluid shifting within an already synergetic vitreous cavity, leading to increased peripheral retinal traction and break formation. Even with an intact anterior hyaloid surface a rent in the posterior capsule disrupts the physical barrier between the anterior and posterior segments of the eye similar to that of the aphakic eye after intracapsular lens extraction. The loss of this barrier may facilitate diffusion of hyaluronic acid, a stabiliser of the vitreous gel, into the anterior chamber,^{3,6} and this situation is manifest clinically as collapse of the vitreous gel.⁷

We share Dr Hall's impression that ECCE and PCIOL probably minimise the incidence of postoperative retinal detachment, and posterior capsulotomy probably increases the likelihood of same. We await a well conducted prospective study to confirm our suspicion.

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Treatment of retinal detachment

SIR, I have read with interest Gilbert and McLeod's¹ paper on the preliminary drainage of subretinal fluid in the treatment of retinal detachment. Just for the record, and for further information of those primarily concerned with retinal surgery, I wish to point out that the indications, advantages, complications, and technique of that procedure have been extensively dealt with by me in a previous report.²

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