

---

---

## LETTERS TO THE EDITOR

Sir,

I read with interest the findings of Haigh and colleagues on their success with implantation of foldable lenses in the presence of anterior capsular tears.<sup>1</sup> The advantages of an intact continuous tear anterior capsulotomy are well known and lead to safe endolenticular and endocapsular phacoemulsification as well as allowing safe and secure implantation of a soft foldable intraocular lens.<sup>2</sup> It is generally taught that the absence of an intact anterior capsulorhexis is a reason to not proceed with phacoemulsification, especially with nuclear cracking techniques. It is probably safer to convert at this stage to full incision extracapsular surgery.<sup>3</sup> If a small radial tear is identified in the edge of the capsulorhexis then the capsulorhexis may be rescued by incorporating this tear into a larger capsulorhexis as described by Gimbel in his technique for two-stage capsulorhexis for endocapsular phacoemulsification.<sup>4</sup>

It will be interesting to see whether, in the longer term, there is more than their reported intraocular lens decentration of 0.29 mm. It has been taught that if an implant is placed in the capsular bag in the presence of a radial tear in the edge of a capsulorhexis then a deliberate surgical cut should be made in the edge of the capsulorhexis directly opposite this. (H.V. Gimbel, Canadian Rockies Symposium on Cataract and Refractive Surgery, Banff, Canada, July 1994). The aim of this manoeuvre is to minimise potential lens decentration that could happen theoretically if fibrosis and contracture of the edge of the capsulorhexis occur in the post-operative period. A single radial tear could lead to asymmetrical contracture. The second cut aims to re-establish symmetrical forces if the edge of the capsular bags contracts.

J. Kwartz, FRCS, FRCOphth

Bolton General Hospital  
Minerva Road  
Bolton BL4 0JR  
UK

### References

1. Haigh PM, Lloyd IC, Lavin MJ. Implantation of foldable intraocular lenses in the presence of anterior capsular tears. *Eye* 1995;9:442–5.
2. Gimbel HV, Neuhann T. Development, advantages, and

methods of the continuous circular capsulorhexis technique. *J Cataract Refract Surg* 1990;16:31–7.

3. Bolger J. How to master capsulorhexis. *Eye* 1995;9:526–9.
4. Gimbel HV. Two-stage capsulorhexis for endocapsular phacoemulsification. *J Cataract Refract Surg* 1990;16:246–9.

Sir,

We agree with Mr Kwartz that phacoemulsification is safer to perform, especially when using a nuclear cracking technique, in the presence of an intact capsulorhexis. However, we have described appropriate measures which may allow an experienced surgeon to proceed with phacoemulsification and soft intraocular lens (IOL) implantation when an anterior capsular tear has occurred.<sup>1</sup> The recently described 'stop and chop' phacoemulsification technique<sup>2</sup> may be a more satisfactory method for performing nuclear cracking when a radial tear is present. In 'stop and chop' the forces which crack the nuclear rim are directed towards the centre of the nucleus rather than towards the zonule, and hence should be less likely to cause tear extension.

Two-stage capsulorhexis is an important technique for refashioning a continuous capsulorhexis when a small radial tear occurs,<sup>3</sup> but anterior capsular tears often extend rapidly towards the lens equator and may be too large to be incorporated into a second capsulorhexis. A radial tear which has reached the lens equator is prevented from extending into the posterior capsule by the bridging zonular fibres.<sup>4</sup> We must emphasise that if there is any suspicion of zonular disruption, the surgeon should immediately convert to large incision extracapsular surgery.

A cut made in the edge of the capsulorhexis directly opposite a radial tear should help to prevent IOL decentration resulting from asymmetrical capsular bag contracture. However, it is noteworthy that in the cases we described<sup>1</sup> all anterior radial tears had become bridged by fibrous tissue when examined at the last follow-up visit (mean 14.7 months post-operatively). Since the integrity of the anterior capsular opening is reconstituted by tissue bridging, this alone may be sufficient to prevent asymmetrical contracture. It will indeed be interesting to discover