

whether more than 0.29 mm IOL decentration occurs over a longer follow-up period.

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#### 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. Koch PS, Katzen LE. Stop and chop phacoemulsification. *J Cataract Refract Surg* 1994;20:566-70.
3. Gimbel HV. Two-stage capsulorhexis for endocapsular phacoemulsification. *J Cataract Refract Surg* 1990;16:246-9.
4. Assia EI, Apple DJ, Tsai JC, Morgan RC. Mechanism of radial tear formation and extension after anterior capsulectomy. *Ophthalmology* 1991;98:432-7.

Sir,

Claridge *et al.* in their paper 'Should second eye cataract surgery be rationed?' (1995;9(Suppl):47-9) discuss the reduction in binocular visual function due to unilateral cataracts. However, they do not distinguish between binocular rivalry and binocular inhibition, which can both lead to a reduction in binocular function but by entirely different physiological processes.

Binocular inhibition is the process whereby reduced contrast sensitivity in one eye due to unocular cataract<sup>1</sup> in patients with a mild reduction in visual acuity (no worse than 6/12 in the cataractous eye) leads to a constant reduction in binocular contrast sensitivity which is worse than the contrast sensitivity of the better eye and approximates to the mean of the contrast sensitivities of the two eyes. This is analogous to Fechner's paradox in the assessment of brightness.<sup>2</sup> Binocular rivalry<sup>3,4</sup> occurs when corresponding points in the two eyes view images that are so dissimilar that they cannot be fused. The observer experiences alternating dominance and suppression of each binocular image.

Binocular inhibition leads to a constant reduction in visual function in those patients with early unilateral cataracts, whereas binocular rivalry produces an intermittent disturbance of vision leading to visual symptoms in patients with moderate and dense unilateral cataract.<sup>5</sup> Patients with unilateral cataract have many symptoms and evidence is accumulating that second eye cataract surgery is beneficial in terms of both relief of symptoms and improved performance in tests of visual function.<sup>6,7</sup> Firm conclusions must await the results of a randomised controlled trial to assess the benefits of second eye cataract surgery which is nearing completion<sup>8</sup> and will be published in the near future.

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#### References

1. Pardhan S, Gilchrist J. The importance of measuring binocular contrast sensitivity in unilateral cataract. *Eye* 1991;5:31-5.
2. Levelt WJ. Binocular brightness averaging and contour information. *Br J Psychol* 1965;56:1-13.
3. Fox R. Binocular rivalry. In: Regan D, editor. *Vision and visual dysfunction*. vol 9. London: Macmillan Press, 1991:93-110.
4. Blake R. A neural theory of binocular rivalry. *Psychol Rev* 1989;96:145-67.
5. Harrad RA, Whitaker A, Laidlaw DAH. Binocular rivalry in patients with unilateral cataract: a previously unidentified cause of visual disability. *Invest Ophthalmol Vis Sci* 1994;35:1964.
6. Laidlaw A, Harrad R. Can second eye cataract surgery be justified? *Eye* 1993;7:680-6.
7. Javitt JC, Steinberg EP, Sharkey P, *et al.* Cataract surgery in one eye or both: a billion dollar per year issue. *Ophthalmology* 1995;102:1583-93.
8. Laidlaw DAH, Donovan JL, Peters TJ, Sparrow JM, Williams MH, Frankel SJ, Harrad RA. A multidisciplinary randomised control trial of the benefit of second eye cataract surgery. *Invest Ophthalmol Vis Sci* 1995;36:S842.