The South Asian cataract management study

EDITOR,—In reading the preliminary report evaluating the clinical outcome of intracapsular cataract extraction (ICCE) with aphakic correction either via anterior chamber intraocular lens (AC IOL) implants or aphakic spectacles in a developing country setting I was given cause for alarm with regard to the assessment of the differences in visual outcome.

While the study is ongoing, I think it is important to recognise that a varying percentage (16–25%) of standard ICCE patients in a developing country setting will lose their spectacles and have problems adapting to the magnified image, forcing some patients not to wear them at all.1,2 By the same token, the quality of vision and life enjoyed by those patients with AC IOL implants is likely to be superior to those patients relying on aphakic spectacles, or none at all. However, the report’s stress on the stringent use of visual acuity measures alone and its conclusion that ‘There was no significant difference in visual outcome between study groups’, fails to address adequately the variation attributable to spectacle and non-spectacle users with aphakic patients in determining the overall differences in visual outcomes between the two study groups.1 In regard, recent instruments developed to measure both the preoperative and postoperative visual function and quality of life aspects of cataract patients within the context of a developing country setting offer an avenue for further exploration of the relation between visual acuity and overall patient satisfaction with the visual outcome of cataract surgery.3

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REPLY

EDITOR,—The south Asian cataract management study (SACMS) was not designed to address the issue of quality of life. There is certainly no longer any controversy that the introduction of an IOL improves the quality of vision compared with aphakic spectacle correction. This is reflected in the significant increase of IOL implantations being performed in most developing countries every year.

The authors of the SACMS are well aware of the excellent work being undertaken at the Aravind Eye Hospital (Madurai Intracapsular Lens Study—MIOLS) addressing the quality of life issue in cataract surgery with and without IOL.

The SACMS group has chosen to focus on documentation of the clinical aspects of cataract surgery with and without intracameral endothelial survival with a well proved surgical technique after implantation of a modern generation AC IOL. We are confident that the outcome of the SACMS, MIOLS, and other similar randomised prospective studies and meta-analysis will provide comprehensive conclusive data to guide surgeons and clinical centres on approaches to cataract surgery in these and other settings.

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However, this does not affect the arrival of neural crest cells at the eye and since the PAX6 gene is not known to be expressed in this tissue it is unlikely to be the site of primary pathology.

Although the concurrence of Peters’ anomaly and Axenfeld’s anomaly is an interesting finding it may be a little premature to conclude that this is the usual case and has hitherto remained undetected. I would like to suggest that an alternative explanation is that determined by a single gene causing a range of phenotypes with the primary abnormality residing within the expressing tissue—that is, neuroectoderm and head ectoderm, and secondary abnormalities occurring within tissues which express that is, neural crest cell mesenchyme. This principle should still hold true for cases of Peters’ anomaly not due to abnormality of the PAX6 gene. Some of these may result from a primary disorder of neural crest cells but this has yet to be proved.

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11 Wältcher G, Gruss P. Pax-6, a murine paired box gene, is expressed in the developing CNS. Development 1991;113:1435–49.

Reply

EDITOR,—We also have an interest in the recent discoveries of the association between anterior segment anomalies and PAX6 locus. At present, we are analysing the PAX6 locus of an affected family in order to determine the position of the mutation, single strand conformation polymorphism, and sequencing analysis methods.13 Jordan’s alternative explanation is interesting,