

Journal Watch

by Sean Henahan

Vision science highlights from the world's leading journals of medicine and science

Each year at the annual conference of the American Academy of Ophthalmology the editors of the leading US general ophthalmology journals convene to review the top journal articles that have not been presented at previous AAO meetings within the past 12 months, in a session known as "Editors' Choice". Here is a selection of this year's winners.

Phaco vs. Small Manual Incision

Parikshit Gogate MS FRCS reviewed a randomised control clinical study he conducted comparing phacoemulsification with manual small incision cataract surgery. The study randomised 400 patients to one or the other approach, comparing visual results at six weeks. He reported that both the phacoemulsification and the small-incision techniques were safe and effective for visual rehabilitation. Patients in the phacoemulsification group were more likely than those in the small incision group to achieve at least 6/18 at six weeks, 81% and 71% respectively. The phacoemulsification group had seven posterior capsular rents compared with 12 in the small-incision group, but the phacoemulsification group had more corneal oedema on the first

postoperative day. The small incision approach is gaining favour in India, where phaco is not always available.

P. Gogate et al, Ophthalmology, "Safety and Efficacy of Phacoemulsification Compared with Manual Small Incision Cataract Surgery by a Randomised Controlled Clinical Trial: Six Week Results", May 2005, Vol. 112, Issue 5, Pages 869-874.

Patching older amblyopes

Richard Hertle MD, representing the Paediatric Eye Disease Investigator Group (PEDIG), discussed a study of amblyopia treatment that upset the prevailing dogma. That study followed 507 amblyopia patients at least seven years of age at 49 clinical sites, who were randomised to a two to six hours of patching combined with near visual activities (plus atropine sulfate for children aged 7 to 12 years) or optical correction alone. Patients whose amblyopic eye acuity improved 10 or more letters by 24 weeks were considered responders. Some 53% of the 7- to 12-year-olds in the patching group were responders compared with 25% of the optical correction group. In a subgroup of 13- to 17-year-olds, those not previously treated with patching and/or atropine did significantly better than their age group as a whole. He cautioned that most patients,

including responders, were left with some residual visual acuity deficit. Long-term effects are being evaluated in a follow-up study.

PEDIG, Archives of Ophthalmology. "Randomised Trial of Treatment of Amblyopia in Children Aged Seven to 17 Years", Apr 2005; 123: 437 - 447.

Long-term cryotherapy results offer hope

Earl Palmer MD representing the Cryotherapy for Retinopathy of Prematurity Cooperative Group reviewed the final, 15-year, results of a landmark study on cryotherapy for the treatment of retinopathy of prematurity. The researchers were able to follow-up 254 patients who had undergone cryotherapy on one or both eyes as infants. Thirty percent of treated eyes had unfavourable structural outcomes compared with 51.9% of control eyes. Similarly, treated eyes were less likely to have vision of 20/200 or worse than untreated eyes, 44.7% vs. 64.3%. Thirty eyes achieved 20/20 vision. The results were statistically significant. He commented that, while the study offers hope for parents of children with ROP, it also signals the need for longterm, regular follow-up of eyes that experience threshold ROP.

E. Palmer et al, Archives of Ophthalmology, "Fifteen Year Outcomes Following Threshold Retinopathy of Prematurity: Final Results from the Multicenter Trial of Cryotherapy", Mar 2005; 123: 311 - 318.

New clue to CME

Bram van Kooij MD presented new data on a possible link between microalbuminuria and cystoid macular oedema. His matched case-control study included 24 consecutive patients with uveitis and CME, with 24 uveitis patients without CME serving as controls. The study revealed a positive association between trace- and/or microalbuminuria and inflammatory CME ($P = .001$). The analysis found no relation between CME and cardiovascular morbidity or its risk factors, or any other association between trace- and/or any microalbuminuria and general characteristics of patients. He hypothesised that the presence of early systemic vascular disease could increase the risk of developing CME, noting that the findings of the current study could open up new avenues for the treatment of CME.

B van Kooij et al, American Journal of Ophthalmology, "Trace Microalbuminuria in Inflammatory Cystoid Macular Edema", December 2004, Vol. 138, Issue 6, Pages 1010-1015.