

Cataract surgery and visual outcomes: Singapore Malay eye study

In a population-based study of 3280 Singapore Malays aged 40–80 years (response rate 78.7%), the participants underwent a standardised interview and comprehensive ocular examination. Lavanya *et al* observed that 284 patients had unilateral cataract extractions (4.7%) and 154 (54%) had bilateral extractions. Older age, male sex and the presence of diabetes were significant factors associated with having had cataract surgery. Poor visual outcomes (visual acuity of 20/60 or worse) were present in 11%. Diabetic retinopathy (26%), glaucoma (17%), ARMD (15%), and posterior capsular opacification (15%) were the main causes of poor visual outcome. Under-corrected refractive errors were observed in 60% of patients with post-operative presenting visual acuity of 20/60. *See page 299*

Detection of visual-field deterioration by GPA and TNT programmes

Diaz-Aleman *et al* compared the ability of Glaucoma Progression Analysis (GPA) and Threshold Noiseless Trend (TNT) programmes to detect visual-field deterioration in 42 patients with POAG followed for a minimum of 2 years. Progression was assessed subjectively by four masked glaucoma experts (gold standard) and compared with GPA and TNT results. TNT showed greater concordance with the experts than GPA in the detection of visual-field deterioration (TNT sensitivity and specificity was 100% and 77%). GPA showed a high specificity but lower sensitivity than TNT. *See page 322*

Pain relief for strabismus surgery in children

To assess the postoperative pain relief with preoperative sub-Tenon levobupivacaine in children undergoing squint surgery, Morris *et al* conducted a prospective randomised controlled clinical trial. The test group received sub-Tenon levobupivacaine preoperatively and topical anaesthetic eye-drops at the end of the procedure. The control group received topical anaesthetic eye-drops only. The principal outcome was the pain score

measured using Wong–Baker Pain or FLACC (face, legs, arms, cry, consolability) assessment score. The pain score in the test group was not lower than that of the control group. *See page 329*

Stereopsis in children with unilateral pseudophakia

Unilateral cataract is more likely to cause permanent visual loss than bilateral cataracts in children. Kim and Plager evaluated stereoacuity and the factors influencing stereopsis in 38 children with unilateral pseudophakia. Stereopsis better than 400 s of arc (21 patients) was observed in association with later manifesting cataracts, in the absence of strabismus and in cases with a good postoperative VA. The postoperative VA was the most important factor affecting the outcome of stereopsis in these children. *See page 333*

Graft rejection after DSEK

Jordan *et al* investigated characteristics of immunological graft rejection after Descemet stripping with endothelial keratoplasty (DSEK) in 598 eyes treated with primary DSEK at a single tertiary referral centre. Graft rejection episodes occurred in 54 eyes (48 patients). 35% of the eyes were asymptomatic and were diagnosed during routine examination. Signs of immunological rejection included keratic precipitates (69%), diffuse corneal oedema (11%) or both (20%); no endothelial rejection lines were observed. Pre-existing glaucoma or steroid-responsive OHT and African–American race were independent factors that influenced relative risk of rejection. Rejection risk was not increased if the fellow eye had undergone DSEK within the prior year. Most grafts cleared; four (7%) progressed to graft failure and were successfully regrafted with DSEK. *See page 391*

Vision screening in children by Plusoptix Vision Screener

Dahlmann-Noor *et al* evaluated a new autorefractor, the Plusoptix Vision Screener (PVS), as a screening tool for amblyopia by comparing it with gold-standard orthoptic vision screening in children. In a community-based screening study including 288 children (age 4–7 years) orthoptic screening identified 36

children with reduced vision and/or factors associated with amblyopia (referral rate 12.5%) whereas PVS identified only 16 children (referral rate 5.6%). The use of the PVS as single screening test in young children may miss a significant number of children with refractive error, amblyopia or amblyogenic risk factors. *See page 342*

Wide-field digital retinal imaging vs indirect ophthalmoscopy for ROP screening

Dhaliwal *et al* compared the diagnostic accuracy of wide-field digital retinal imaging (WFDRI) with binocular indirect ophthalmoscopy (BIO) for ROP screening examinations. 81 consecutive premature infants were screened using both WFDRI (Retcam II with neonatal lens) and BIO by two paediatric ophthalmologists who were randomized to the examination technique. Analysis of 245 eye examinations revealed proportional agreement between WFDRI and BIO of 0.96 for stage 3 disease and 0.97 for “plus” disease. However, WFDRI showed poor sensitivity in detecting mild forms of ROP in the retinal periphery. The authors conclude that WFDRI should be regarded as an adjunct to, rather than a replacement for, BIO in routine ROP screening. *See page 355*

Visual and medical risk factors for motor vehicle collision among older drivers

Cross *et al* identified visual and medical risk factors for motor vehicle collisions (MVCs) from pooled data of four cohorts of older drivers ($n = 3158$) from Kentucky, Maryland and Alabama. The sample was age-stratified to include equal numbers of drivers in each half decade from 55 to 85+ years old. Health information was collected at baseline and MVC data were obtained prospectively. A total of 363 MVCs were observed during the study period (1990–1997), of which 145 were at fault and 62 were injurious. Falls and impaired useful field of view (UFOV) were positively associated with overall MVCs. Injurious MVCs were positively associated with arthritis and neurological disease, and inversely with hypertension. These findings identify the need for verification and possible interventions among older drivers. *See page 400*