ILM peeling for idiopathic macular hole

Christensen et al conducted a randomised clinical trial of stage 2 and 3 idiopathic macular hole (78 eyes) to determine the effect of ILM peeling on anatomical and functional success rates. Eyes were randomised to vitrectomy alone without retinal surface manipulation, vitrectomy plus ICG assisted ILM peeling or vitrectomy plus Trypan Blue-assisted ILM peeling. Primary closure rates were significantly higher with ILM peeling than without peeling for both stage 2 and 3 holes. However, visual outcomes were not significantly different between the groups. See page 1005

Diabetes and ARMD in the EUREYE study

Topouzis et al examined the association between self-reported diabetes and early or late age-related macular degeneration (AMD) in the cross-sectional population-based EUREYE study. Data on diabetes history and potential confounders were available in 2117 control subjects without AMD, 2182 with early AMD, 49 with GA and 101 with NV-AMD. Of all participants, 13.1% reported a history of diabetes. After adjusting for potential confounders, subjects with NV-AMD (but not those with GA) compared with controls had increased odds for diabetes (OR 1.81; 95% CI 1.10 to 2.98, p = 0.02). See page 1037

Surgery for uveal melanoma liver metastases

Frenkel et al report on the post hepatectomy survival of uveal melanoma patients with liver metastases. Of the 558 patients, 74 (13%) developed liver metastases after a median of 35.0 months from the ophthalmic diagnosis. 55 patients underwent hepatectomy. The median survival time from the detection of metastasis was 3.7-fold higher in the operated patients in comparison with the non-operated patients. The authors conclude that complete resection of liver metastases may significantly extend the life expectancy of uveal melanoma patients who develop isolated liver metastases. See page 1042

Euthyroid Graves ophthalmopathy

Eckstein et al performed a retrospective, observational study to compare clinical symptoms of Graves ophthalmopathy (GO) in euthyroid and hypothyroid patients to those in hyperthyroid patients. Clinical symptoms (NOSPECS [severity] and CAS [activity] score), prevalence and levels of thyroid specific antibodies and the course of the disease were evaluated in 143 hyperthyroid, 28 euthyroid and 11 hypothyroid patients. GO was less severe, less active, and more asymmetrical in euthyroid/hypothyroid patients. In addition, euthyroid/hypothyroid patients had lower prevalence of TRAb and TPO antibodies than hyperthyroid patients. The authors conclude that more sensitive antibody diagnostic assays are needed in euthyroid and hypothyroid patients. See page 1052

RNFL measurement with SD OCT

Kim et al investigated retinal nerve fibre layer (RNFL) thickness measurement reproducibility using conventional time-domain optical coherence tomography (TD-OCT) and spectral-domain OCT (SD-OCT). 27 eyes (14 healthy subjects) had three circumpapillary scans with TD-OCT and three raster scans (3D image data) around ONH with SD-OCT. After defining the ONH centre, a 3.4 mm diameter virtual circular OCT was resampled on SD-OCT images to mimic the conventional circumpapillary RNFL thickness measurements taken with TD-OCT. SD-OCT 3D data generally showed better RNFL measurement reproducibility than TD-OCT. The choice of ONH centring methods did not affect RNFL measurement reproducibility. See page 1057

Visual acuity and visually evoked responses in cerebral palsy

Ghasia et al determined the probability of obtaining quantitative (logMAR) visual acuity in CP children with varying severity of motor dysfunction. In an observational, cross-sectional study of 76 children (mean age 5.9 years) visual testing was performed using optotypes, spatial-sweep (SSVEP) or flash (VFEF) visually evoked potentials. LogMAR acuity was obtainable in 88% of CP children, using either optotype or SSVEP. The success rate decreased with increasing severity of CP. See page 1068

A new test for bacterial endophthalmitis

Goldschmidt et al report a fast real-time (f-real-t) PCR based method to improve the performance of laboratory diagnosis of bacterial endophthalmitis (BE). They processed vitreous and aqueous samples spiked with bacteria; vitreous and aqueous samples from patients with endophthalmitis; and samples from non-infective patients. DNA was extracted and processed with selected primers and probes for the identification and quantification. Diagnostic performances based on direct microscopic examination, culture and f-real-t PCR were compared. The f-real-t PCR detected and quantified Staphylococci, Streptococci, Haemophilus, Pseudomonas, Enterobacteria, Acinetobacter, Proteobacteria and Corynebacteria within 90 minutes. Usefulness of f-real-t PCR as a rapid and efficient tool for the diagnosis of BE requires validation in larger series of samples. See page 1089

Expression of ABCA1 SR-BI in the retina and RPE

Duncan et al investigated retinal pigment epithelial (RPE) cholesterol transport activity to move lipid into Bruch’s membrane (BM), mediated through ATP-bind- ing cassette A1 (ABCA1) and scavenger receptor BI (SR-BI) by RT-PCR and western blotting of human RPE cell extracts. Lipid transport assays were performed using radio-labelled photoreceptor outer segments (POS). They observed that mouse retina and RPE expressed ABCA1 and SR-BI. BM were significantly thickened in SR-BI heterozygous mice, but not in ABCA1 heterozygous mice implying a significant role for SR-BI and ABCA1 in lipid transport in the retina and RPE.