

# Highlights from this issue

doi:10.1136/bjophthalmol-2012-302676

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## Glaucoma discrimination by macular scans

Kotowski *et al* evaluated the glaucoma discriminating ability of macular retinal layers as measured by SD-OCT in 51 healthy, 49 glaucoma suspect and 63 glaucomatous eyes. OCT macular scans were segmented into macular nerve fibre layer (mNFL), ganglion cell layer with inner plexiform layer (GCIP), ganglion cell complex (composed of mNFL and GCIP), outer retinal complex and total retina. Glaucoma discriminating ability for all macular parameters was similar to mean circumpapillary retinal nerve fibre layer. (*see page 1420*)

## Long-term visual outcomes in retinopathy of prematurity

Singh *et al* describe the long-term outcomes of lens-sparing vitrectomy (LSV) for retinopathy of prematurity in a single-centre retrospective series of 37 eyes (30 patients) with a follow-up of at least 5 years. Of eyes that underwent LSV for Stage 4A or 4B: 63% had measurable visual acuity (mean logMAR 0.92 for Stage 4A, 1.63 for Stage 4B), approximately one-fifth of eyes had no functional vision, and in a further fifth, vision could not be measured due to severe neurological impairment. (*see page 1395*)

## Congenital glaucoma in South Korea

Suh and Kee investigated the clinical manifestations associated with the mutation spectrums of the human cytochrome P450 (CYP1B1) and myocilin (MYOC) genes in 85 South Korean patients with primary congenital glaucoma (PCG). They did not observe a statistically significant difference between PCG patients with CYP1B1 mutations (n=63) and those without mutations (n=22), although the mutation group manifested disease earlier, with greater severity and

frequency in both eyes. The response to treatments was also statistically different between groups and tended to be poor according to the number of mutant alleles. MYOC mutation was detected in only two patients. (*see page 1372*)

## Mouse limbal neurosphere cells

Chen *et al* characterised the origin, ultra-structure, and functional properties of corneal limbal neurospheres (LNS). These cells displayed clonal growth and self renewal, and expressed a wide range of stem cell and neural lineage markers. LNS exhibited similar morphology and micro-structure to neurospheres derived from the central nervous system. Following culture in a conducive environment, the derived cells displayed mature neural markers and exhibited electrical excitability. Corneal limbal stromal progenitor cells are a potential and convenient autologous source for cells to generate functional neurones. (*see page 1431*)

## Uveal melanoma in England

Keenan *et al* analysed data from national hospital episode statistics (1999–2010) and the Oxford record linkage study (1979–1998). The annual rate of people admitted in England with a new record of uveal melanoma remained stable at approximately 1.0 per 100 000 population. Incidence rates at the local authority level were inversely correlated with the proportion of black or Indian individuals, weakly correlated with levels of social deprivation and were not correlated with southerly latitude. (*see page 1415*)

## Resolution of subretinal fluid in acute Vogt–Koyanagi–Harada disease

Nazari and Rao correlated height of subretinal fluid with visual acuity in 12 eyes from six consecutive patients with acute Vogt–Koyanagi–Harada disease (VKH).

Serous retinal detachment resolved in 36 ±24 days in patients with acute VKH treated with oral corticosteroids. The presence of choroidal folds (eight eyes) and multifocal retinal detachment (eight eyes) at presentation correlated with lower initial VA. At any given time, SRF height correlated with VA. The initial SRF, no matter how elevated, did not correlate with VA at 3 months after presentation. (*see page 1410*)

## Ethambutol-induced optic neuropathy

Chen *et al* investigated the risk factors and comorbidities associated with ethambutol-induced optic neuropathy (EON) using the Taiwan Longitudinal Health Insurance Database (231 patients and 924 controls). They identified age, hypertension and renal diseases as risk factors. Prescription duration (shorter or longer than 3 months) and average daily dose (greater or less than 1200 mg) were not at increased risk for EON. (*see page 1368*)

## Aqueous concentrations of cytokines in macular oedema

Lee *et al* obtained aqueous samples from 18 eyes with diabetic macular oedema (DMO group), 12 eyes with branch retinal vein occlusion induced macular oedema (BRVO-MO group), and 16 normal eyes (control group). The aqueous levels of cytokines, including interleukins, monocyte chemoattractant protein-1 (MCP-1), macrophage inflammatory protein-1 $\alpha$  (MIP-1 $\alpha$ ), platelet-derived growth factor-AA, TGF- $\alpha$ , interferon- $\gamma$ , epidermal growth factor, fibroblast growth factor 2 and VEGF were measured. The results suggest that the inflammatory reaction may be more activated in DMO than in BRVO-MO while ischaemic insult may play a central role in the development of BRVO-MO. (*see page 1426*)