Highlights from this issue

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Electrophysiological changes in 12-year-old children born moderate-to-late preterm: reduced VEP amplitude in MLP children (*see page 1156*)
Moderate-to-late preterm children at 12 years of age, with no history of retinopathy of prematurity, displayed reduced pattern-reversal visual evoked potential amplitudes compared with those of controls.

Biphasic growth of orbital volume in Chinese children (*see page 1162*)
The development of the orbital volume in childhood is biphasic. The first growth phase is before 3 and the second is from 7 to 12, with the speed in the first phase three times faster.

Retinal structure assessed by OCT as a biomarker of brain development in children born small for gestational age (*see page 1168*)
Thinner retinal ganglion cell and inner plexiform layers are related to lower grey and white matter volumes in brain MRI from school-age children born small for gestational age.

Retinal sensitivity changes associated with diabetic neuropathy in the absence of diabetic retinopathy (*see page 1174*)
In this study, a significant reduction in retinal sensitivity, as measured using microperimetry, was observed in subjects who had diabetic neuropathy but no diabetic retinopathy. This suggests that retinal function loss may preceed vascular damage in subjects with peripheral diabetic neuropathy.

Detection of posterior vortex veins in eyes with pathological myopia by ultra-widefield indocyanine green angiography (*see page 1179*)
Wide-field indocyanine green angiography detected posterior vortex veins in 26% of 302 eyes with high myopia. Posterior vortex veins are probably important routes of choroidal outflow in highly myopic eyes.

Five-year progression of unilateral age-related macular degeneration to bilateral involvement: the Three Continent AMD Consortium report (*see page 1185*)
In 5 years, 23% of unilateral age-related macular degeneration of any severity and 44% of unilateral late age-related macular degeneration cases became bilateral. Age, smoking, genetic variants and early lesion characteristics predict a higher risk of bilateral involvement.

Choroid morphometric analysis in non-neovascular age-related macular degeneration by means of optical coherence tomography angiography (*see page 1193*)
Patients affected by non-neovascular age-related macular degeneration show reduced vascular density and increased stromal replacement at both choriocapillaris and choroidal levels on binarised optical coherence tomography angiography compared with healthy age-matched controls.

Intravitreal ziv-aflibercept for the treatment of choroidal neovascularisation associated with conditions other than age-related macular degeneration (*see page 1201*)
In a retrospective study, the authors observed short-term efficacy when using intravitreal ziv-aflibercept therapy in eyes with choroidal neovascularisation associated with conditions other than age-related macular degeneration.

Ultrasonic mirror image from ruthenium plaque facilitates calculation of uveal melanoma treatment dose (*see page 1206*)
In uveal melanoma patients, intra and interobserver variances were reduced when ultrasonic mirror images from ruthenium plaques were used to determine dose depth. This method was observed to facilitate a more reliable calculation of treatment dose.

Longitudinal study of retinal status using optical coherence tomography after acute-onset endophthalmitis following cataract surgery (*see page 1211*)
Epiretinal membrane and macular oedema are the most frequent macular complications observed on optical coherence tomography after the management of acute postcataract endophthalmitis. The prevalence of epiretinal membrane increased with time.

In vivo confocal microscopic characteristics of microsporidial keratoconjunctivitis in immunocompetent adults (*see page 1217*)
The authors were able to visualise spore-like structures in all microbiologically proven cases of microsporidial keratoconjunctivitis using in vivo confocal microscopy. Rosette-like configuration of epithelial cells was also observed in a majority of cases.

Repeatability and agreement of ocular biometry measurements: Aladdin versus Lenstar (*see page 1223*)
This new optical biometry device (Aladdin) yielded excellent repeatability in terms of axial length, anterior chamber depth and keratometry measurements in normal eyes. Good agreement was found between the Lenstar LS 900 biometer for common measurement parameters and intraocular lens power calculations.

Topical tacrolimus solution in autoimmune polyglandular syndrome-1-associated keratitis (*see page 1230*)
Topical tacrolimus was evaluated for its efficacy in patients with autoimmune polyglandular syndrome-1-associated keratitis. There was improvement of photophobia in seven patients. However, there was no improvement in subeithelial keratitis and vascularisation after therapy.

Efficacy of topical cysteamine in nephropathic cystinosis (*see page 1234*)
Topical 0.55% cysteamine eye has limited effectiveness in improving photophobia and decreasing corneal cystine deposits in patients with nephropathic cystinosis.

Evidence of central sensitisation in those with dry eye symptoms and neuropathic-like ocular pain complaints: incomplete response to topical anaesthesia and generalised heightened sensitivity to evoked pain (*see page 1238*)
Individuals who manifest persistent ocular pain after topical anaesthesia (an indication of underlying central pain mechanisms) had greater dry eye and neuropathic ocular pain symptoms in comparison with those who reported no ocular pain after anaesthesia, despite similar ocular surface findings, suggesting that clinically available tools can be used to evaluate dysfunction within the corneal somatosensory system.

Accelerated transepithelial corneal cross-linking for progressive keratoconus: a prospective study of 12 months (*see page 1244*)
Accelerated transepithelial corneal collagen cross-linking (CXL) is faster

than standard CXL for treating progressive keratoconus. The authors validated the medium-term safety and efficacy of accelerated transepithelial CXL in this prospective study.

A method for quantifying limbal stem cell niches using OCT imaging (*see page 1250*)
Imaging and analysis of the ocular limbus using Fourrier–domain optical coherence tomography and Matlab software was observed to enable identification and quantification of the limbal palisades of Vogt, that is, the limbal stem cell niche.

Optic disc haemorrhages at baseline as a risk factor for poor outcome in the idiopathic intracranial hypertension treatment trial (*see page 1256*)
In a study of idiopathic intracranial hypertension treatment trial subjects, the authors report nerve fibre layer haemorrhages to be common and correlate with the severity of papilloedema. These may be associated with a poor visual outcome.

Peripapillary perfused capillary density in primary open-angle glaucoma across disease stage: an optical coherence tomography angiography study (*see page 1261*)
Peripapillary perfused capillary density (PCD) demonstrated a progressive redu ction from control eyes through worsening stage of primary open-angle glaucoma. PCD exhibited diagnostic capability comparable to that of retinal nerve fibre layer thickness and visual field mean deviation.

Outcome of repeat trabeculectomies: long-term follow-up (*see page 1269*)
Long-term outcomes of a prospective evaluation of 56 consecutive separate site safe repeat trabeculectomies augmented with mitomycin C, titrated against the individual patients' risk profile, resulted in improved success rate.

Mitomycin C-augmented trabeculectomy: subtenon injection versus soaked sponges, a randomised clinical trial (*see page 1275*)
While intraocular pressure and safety profile is comparable between subtenon injection of mitomycin C and a conventional sponge method, a better bleb morphology was observed(low lying, diffuse and normally vascularised) when an injection method was used.

The role of day 1 postoperative review of intraocular pressure in modern vitrectomy surgery (*see page 1281*)
Currently it is common practice for patients undergoing 23-gauge vitrectomy to have a review on the first postoperative day to assess intraocular pressure (IOP). However, it is not clear that this review is necessary for all patients. The authors present a retrospective analysis of 200 consecutive patients undergoing 23-gauge vitrectomy examining long-term complications of raised IOP, and identified risk factors for raised IOP in these patients.

Preoperative aqueous humour flare values do not predict proliferative vitreoretinopathy in patients with rhegmatogenous retinal detachment (*see page 1285*)
The wide variation and overlap in flare values between groups implicate that the measurement of aqueous humour flare with a laser flare metre is an inaccurate method of selecting patients at risk of developing proliferative vitreoretinopathy.

Aqueous humour dynamics and biometrics in the ageing Chinese eye (*see page 1290*)
Thinner corneas, shallower anterior chambers, and slower aqueous flow and uveoscleral outflow rates characterise healthy ageing Chinese eyes. The trabecular outflow pathway drains a higher percentage of aqueous humour than the uveoscleral pathway at young and old ages.

Pigmentary retinopathy, rod-cone dysfunction and sensorineural deafness associated with a rare mitochondrial $tRNA^{Lys}$ (m.8340G>A) gene variant (*see page 1297*)
The authors report an expanded clinical phenotype associated with the rare mitochondrial m.8340>A mutation to include ocular pathology. They suggest reclassification genotype of m.8340G>A as 'definitely pathogenic' on the basis of histochemical and biochemical analyses together with single fibre studies of a muscle biopsy.