Highlights from this issue

doi:10.1136/bjophthalmol-2014-305155

Arun Singh and Harminder Dua, *Editors-in-Chief***PHONE-BASED RETINAL CAMERA**

Maamari *et al* described a novel portable handheld smartphone-based retinal camera capable of capturing high-quality, wide field fundus images. The use of the mobile phone platform creates a fully embedded system capable of acquisition, storage and analysis of fundus images that can be directly transmitted from the phone via the wireless telecommunication system for remote evaluation.

CONTACT LENS INDUCED CORNEAL CHANGES FOLLOWING COLLAGEN CROSS-LINKING

Sehra *et al* studied corneal microstructural changes with use of rigid gas permeable contact lenses (CLs) in keratoconus patients following collagen cross-linking (CXL, 365 nm, 3 mW/cm², 30 min with 0.1% riboflavin). Patients who refused CXL were fitted with CL (keratoconus (KL)-CL; 25 eyes). 3 months after CXL, patients were either fitted with CL (CXL-CL; 26 eyes) or followed up with only spectacle correction (CXL-SL; 21 eyes). Patients using CL (CXL-CL and KC-CL) showed evidence of epithelial cell stress with increase in the superficial epithelial cell size and decrease in basal epithelial cell density. They also had a decrease in corneal sub-basal nerve plexus (CSNP) density and branching. Stromal keratocyte regeneration was unaffected with CL use.

INTEROCULAR SYMMETRY OF RETINAL AND OPTIC NERVE OCT PARAMETERS IN CHILDREN

Al-Haddad *et al* report interocular differences in retinal nerve fibre layer (RNFL), optic nerve head and macular parameters in 108 healthy children (aged 6–17 years) using spectral domain optical coherence tomography (SD-OCT). The macular thickness analysis revealed interocular differences in the outer nasal and outer inferior quadrants, with left eyes displaying larger values. With respect to RNFL parameters, right eyes displayed thicker

nasal and temporal quadrants, and inferior clock hours; left eyes had a thicker superior quadrant. The older age group (>10 years) had more pronounced variation in interocular differences compared with the younger group with less mature visual systems.

IMMUNOMODULATORY THERAPY IN CHILDREN WITH CHRONIC ANTERIOR UVEITIS

Doycheva *et al* assessed the long-term efficacy and tolerability of tumour necrosis factor α (TNF α) inhibitors for refractory antinuclear antibody (ANA)-associated chronic anterior uveitis. In a retrospective analysis of 31 children with a follow-up period of at least 2 years, 23 children (74%) were treated with adalimumab, 5 children (16%) with infliximab and 3 children (10%) with etanercept. Control of uveitis was achieved in 22 patients (71%) after 1 year and in 21 patients (72%) after 2 years of treatment. Control of uveitis was observed in 78% of children treated with adalimumab, 40% treated with infliximab and 0% in children treated with etanercept. Systemic corticosteroids could be discontinued in 71% and topical corticosteroids in 55% of the patients. Treatment-related side effects were found in nine children (29%, rate: 0.10/patient-year).

VARIATION OF CLINICAL OUTCOMES USED IN GLAUCOMA TRIALS

Ismail, Azuara-Blanco, and Ramsay conducted a systematic review of glaucoma randomised clinical trials (RCTs) reported between 2006 and 2012. Only studies in English language were considered (233). All clinical and reported outcomes were included. The possible variations of clinical outcomes were defined prior to data analysis. There were large variations in the definitions used to describe different outcomes and their measures. Intraocular pressure was the most commonly reported outcome (86%) with a total of 422 measures (44%). Safety outcomes were commonly reported in 145 RCTs (62%)

whereas visual field outcomes were used in 38 RCTs (16%). Lack of standardisation may impair the ability to evaluate the evidence of glaucoma interventions.

PREVALENCE AND CHARACTERISTICS OF PLATEAU IRIS CONFIGURATION

Li *et al* investigated the prevalence, risk factors and characteristics of plateau iris configuration (PIC) among American Caucasian, American Chinese and mainland Chinese. In a multicentre, cross-sectional study of non-glaucomatous subjects (40–80 years) 111 American Caucasian, 116 American Chinese and 110 mainland Chinese were included. Prevalence of PIC based on ultrasound biomicroscopy imaging was compared among the different ethnic groups. The prevalence of PIC did not differ among American Caucasian (25%), American Chinese (24%) and mainland Chinese (21%). The presence of PIC was associated with more positive spherical equivalence and shorter axial length.

GENOTYPE-PHENOTYPE CORRELATES IN STARGARDT DISEASE

Utz *et al* assessed the genotypic diversity in a retrospective, cross-sectional study of 112 patients with Stargardt disease. Correlation between age at presentation, best-corrected visual acuity (BCVA), and ABCA4 genotypes was performed. Mean age at presentation was 30 $\pm$ 16 years (range 6–78 years). 98 of 90 families had a probable molecular diagnosis. BCVA of patients presenting in the first decade was significantly worse than those presenting in later decades ($p=0.04$); that patients who harboured two or more mutations presented earlier and had worse BCVA than those with no or 1 mutation. 16 patients with c.5882G>A allele demonstrated better BCVA than the remaining patients; 10 patients with the c.5461-10T>C mutation presented earlier and had more severe disease. Select sequence variations in ABCA4 seemed to confer a specific phenotype.