At a glance

Harminder S Dua and Arun D Singh, *Editors-in-Chief*

Limits of the OCT retinal mapping

The management of AMD is largely based upon OCT evaluation of the macula. The retinal-mapping program of Stratus OCT (Carl Zeiss Meditec, Dublin, CA, USA) calculates the retinal volume of the central region between the retinal surface and the retinal pigment epithelium (RPE). In this study, Krebs *et al* tested whether the lines indicating the retinal surface and the RPE were positioned correctly by the threshold algorithm. Overall, only in 57.1% of scans of 233 eyes (117 patients) were both lines positioned correctly. False-positioned lines were recorded in 9.0% due to low scan quality and in 33.9% due to a doubled or interrupted hyperreflective band of the RPE. The authors suggest that a manual correction of false-positioned lines would be needed to improve accuracy. ***See page 933***

Tetrapeptide eye-drops for neurotrophic keratopathy

Combination of substance P-derived peptide (FGLM-amide) and insulin-like growth factor-1 (IGF-1)-derived peptide (SSSR) stimulates rabbit corneal epithelial migration. 26 eyes (25 patients) with persistent corneal epithelial defects associated with neurotrophic keratopathy were treated by administration of eye-drops containing FGLM-amide and SSSR in a prospective open label study. Yamada *et al* observed complete resurfacing of epithelial defects in 18 of 22 (82%) and in 1 of 4 (25%) eyes without or with limbal stem cell deficiency, respectively. No adverse effects of treatment were observed in any subject.
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Avon Longitudinal Study of Parents and Children

The subjects were children born to mothers resident in Avon (England, UK) between 1 April 1991 and 31 December 1992. A total of 14 541 children (estimated 85% of those eligible) were recruited, of whom 13 988 were still alive and participating at the age of 1 year. Williams *et al* estimated the distribution and predictors of some common visual problems (strabismus, amblyopia, hypermetropia) within this population-based cohort of 7825 children at the age of 7 years. 2.3% had manifest strabismus, 3.6% had amblyopia and 4.8% were hypermetropic. Children from less advantaged backgrounds were more at risk of hypermetropia, amblyopia and convergent strabismus, and were also less likely to see an eye care specialist or to use screening services. Compulsory school-entry vision screening, as recommended by the National Screening Committee and the Hall Report, may redress differential uptake of services.
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Ocular hypotensive prostaglandins, anterior uveitis and cystoid macular oedema

In a retrospective comparative case series of 163 eyes of 84 consecutive patients with uveitis and raised IOP treated with a PG analogue and control eyes (uveitic eyes of the same patients, which were treated with topical IOP-lowering agent(s) other than a PG analogue), Chang *et al* compared the frequency of anterior uveitis and CMO during PG analogue treatment. They observed that PG analogues were potent topical medications for lowering raised IOP in patients with uveitis and their usage was not associated with increased risk of CMO or anterior uveitis.
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Intravitreal bevacizumab in type 2 idiopathic macular telangiectasia

Issa *et al* retrospectively studied 6 eyes of 5 patients with type 2 IMT who received two doses of intravitreal bevacizumab (1.5 mg) at a 4-week interval, followed by further applications depending on disease activity. Mean follow-up time was 18 months. Transient beneficial effects were noted in the mean VA, reduced parafoveal leakage, and reduction in mean central retinal thickness in all eyes following treatment followed by a rebound effect 3–4 months later. ***See page 941***

Autofluorescence in cystoid macular oedema

In an effort to determine the sensitivity and specificity of the non-invasive imaging technique fundus autofluorescence (AF) in the diagnosis of cystoid macular oedema (CMO), using fluorescein angiography as the reference standard, McBain *et al* retrospectively analysed data derived from 34 eyes (34 consecutive patients). The diagnosis of CMO based on AF imaging had 81% sensitivity and 69% specificity when compared with the reference standard. The detection rate with AF imaging was higher (100%, 12/12 eyes) for florid CMO and lower (50%, 4/8 eyes) in eyes with mild CMO. ***See page 946***

Immune cells in the human choroid

Ezzat *et al* characterised the leucocytes in human macular choroid with and without drusen and in eyes with advanced age-related macular degeneration (AMD) with fibrovascular scarring (FVS). Fixed macular biopsies were sectioned and stained immunochemically for the presence of leucocyte antigens in 10 eyes (9 donors). They observed that the human choroid contains similar amounts of CD4-positive cells and monocytes irrespective of the presence of drusen, but CD8-positive cells are more abundant in macular choroid with drusen. These observations provide further evidence for the possible participation of inflammatory cells in the pathogenesis of AMD. ***See page 976***

Immune cell migration at the human ocular surface

Chan *et al* studied the migration and phenotypic characteristics of immune cells in the human organ cultures of human conjunctiva (denuded of the epithelium). Cells migrating on to the surface were harvested and analysed by flow cytometry. Conjunctival samples were also studied by immunohistology and electron microscopy. A preferential unidirectional migration of a wide range of immune cell phenotypes from the stroma, through pores in the basement membrane, towards the surface was noted. Their model can be used to study in vitro ocular surface effects of injurious agents. ***See page 970***