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# Highlights from this issue

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**Early postnatal hyperglycaemia is a risk factor for treatment-demanding retinopathy of prematurity (see page 14)**  
Early hyperglycemia is significantly, and independently, associated with development of treatment-demanding Retinopathy of Prematurity, when adjusted for known risk factors.

**Outcomes of penetrating keratoplasty in congenital hereditary endothelial dystrophy (see page 19)**  
Congenital hereditary endothelial dystrophy (CHED) is a rare condition. This study demonstrated a poor outcome from penetrating keratoplasty for CHED in Irish patients due to dense amblyopia and a high risk of graft failure.

**Emergency corneal grafting in the UK: a 6-year analysis of the UK transplant registry (see page 26)**  
The information available about emergency corneal graft surgery is limited. In this study, 6 years of data were analysed from UK Blood & Tissue transplant. Emergency corneal graft surgery, although less successful than routine corneal graft surgery, was observed to be a successful eye and sight saving operation.

**Long-term clinical outcome of femtosecond laser-assisted lamellar keratectomy with phototherapeutic keratectomy in anterior corneal stromal dystrophy (see page 31)**  
By using femtosecond laser assisted lamellar keratectomy with phototherapeutic keratectomy, the authors report that vision could be improved through reducing corneal irregularity and high order aberration in anterior corneal stromal dystrophy without recurrence for up to 9.5 years.

**Stability of visual outcome between 2 and 5 years following corneal transplantation in the UK (see page 37)**  
Most patients who received a corneal transplant for keratoconus or Fuchs endothelial dystrophy in the United Kingdom between 2003 and 2009 maintained or improved their vision between two and 5 years following keratoplasty.

**Comparison of corneal dynamic parameters and tomographic measurements using Scheimpflug imaging in keratoconus (see page 42)**

Corneal dynamic response parameters were comparable with tomographic measurements using Scheimpflug imaging in differentiation of keratoconus and normal eyes.

**Long-term outcomes of the Boston type I keratoprosthesis in eyes with previous herpes simplex virus keratitis (see page 48)**

Long-term outcomes of the Boston type I keratoprosthesis in eyes with a history of herpes simplex virus reveal an increased rate of retention failure and more complications compared with eyes without a history of HSV keratitis.

**Conjunctival lymphangiectasia associated with classic Fabry disease (see page 54)**  
Conjunctival lymphangiectasia persisted in the overwhelming majority of a cohort of patients with Fabry disease on long-term enzyme replacement therapy. This underrecognised ocular manifestation was accompanied in most cases by dry eye and lymphedema.

**Growth of meibomian gland tissue after intraductal meibomian gland probing in patients with obstructive meibomian gland dysfunction (see page 59)**  
Growth of the meibomian glands was observed in over 40% of upper lids following meibomian gland probing, as viewed on noncontact infrared meibography with individual glands growing up to 21%.

**Long-term outcomes of orbital fat decompression in Graves' orbitopathy (see page 69)**  
Orbital fat decompression is a promising surgical modality to reconstruct disfiguring proptosis, reduce diplopia, improve quality of life, and has long term efficacy to combat disease regression in patients of Graves Ophthalmopathy with disfiguring proptosis.

**Use of Ruthenium-106 brachytherapy for Iris Melanomas: The Scottish Experience (see page 74)**  
Ruthenium106 plaque brachytherapy is a safe and effective treatment modality for

iris melanomas. It achieves good tumour control and high eye retention rates.

**Incidence and prevalence of uveitis in South Korea: a nationwide cohort study (see page 79)**  
This retrospective, nationwide, claims-based study observed an average uveitis incidence of 10.6 per 10000 person-years and prevalence of 17.3 per 10000 persons, indicating a substantial burden of uveitis in South Korea.

**Progression of lamellar hole-associated epiretinal proliferation and retinal changes during long-term follow-up (see page 84)**  
Our findings emphasise that the area of lamellar hole-associated epiretinal proliferation increased over time and progression of intraretinal changes were correlated with deterioration of visual function in eyes with lamellar macular holes.

**One-year outcome of intravitreal ziv-aflibercept therapy for non-responsive neovascular age-related macular degeneration (see page 91)**  
Outcome after intravitreal ziv-aflibercept therapy in eyes with wet age-related macular degeneration who were non-responsive to intravitreal bevacizumab and ranibizumab therapy are reported. Intravitreal ziv-aflibercept therapy appears to increase the treatment interval, however, there is no significant change in visual and anatomical outcomes.

**Six-year outcomes of anti-vascular endothelial growth factor monotherapy for polypoidal choroidal vasculopathy (see page 97)**  
Anti-vascular endothelial growth factor monotherapy for polypoidal choroidal vasculopathy preserves vision but requires continuous injections over an extended follow-up period.

**Visual and ocular motor function in the atypical form of neurodegeneration with brain iron accumulation type I (see page 102)**  
Functional retinal changes and marked fixation instability, including pervasive saccadic pulses, should be considered in the clinical spectrum of atypical NBIA type I. Optic nerve and saccade network seem to be spared.

### **Interdevice comparison of retinal sensitivity assessments in a healthy population: the CenterVue MAIA and the Nidek MP-3 microperimeters (see page 109)**

Retinal sensitivity measurements were obtained from two different microperimetry devices. While the values were observed to differ between the devices, the relationship was consistent and amenable to correction by a standard factor.

### **Electrophysiological findings show generalised post-photoreceptor deficiency in macular telangiectasia type 2 (see page 114)**

Electrophysiological differences between MacTel2 patients and a normal control group suggest underlying changes in rod and cone system function, at a post-photoreceptor level, and are in keeping with the Müller cell hypothesis of MacTel2 pathogenesis.

### **Peripheral leptochoroid: clinical and anatomical findings (see page 120)**

In the clinical entity of bilateral macula hyperpigmentation, normal choroidal thickness is observed in the macular lesions in contrast to the abnormal reduction

in choroidal thickness that is observed surrounding this.

### **Assessing total retinal blood flow in diabetic retinopathy using multiplane en face Doppler optical coherence tomography (see page 126)**

Multi-plane en face Doppler OCT was able to measure total retinal blood flow in diabetic retinopathy eyes with good repeatability. A trend of decreasing retinal blood flow was observed with increasing severity of diabetic retinopathy.

### **Effect of acute intraocular pressure elevation on the minimum rim width in normal, ocular hypertensive and glaucoma eyes (see page 131)**

An association is reported between acute IOP elevation and a significant reduction in neuro-retinal rim width in eyes with glaucoma but not in healthy or ocular hypertensive eyes.

### **Phenotypic diversity in autosomal-dominant cone-rod dystrophy elucidated by adaptive optics retinal imaging (see page 136)**

In a four-generation family with autosomal dominant cone-rod dystrophy,

adaptive optics scanning laser ophthalmoscopy showed diversity of the retinal cellular phenotype, in both cones and rods, among patients with the identical genetic mutation.

### **In vitro synergy of natamycin and voriconazole against clinical isolates of *Fusarium*, *Candida*, *Aspergillus* and *Curvularia* spp (see page 142)**

Synergistic interactions between voriconazole and natamycin in vitro has shown additivity in effect against *Aspergillus*, *Fusarium*, *Candida* and *Curvularia*. Absence of antagonism supports the trial of this drug combination in severe fungal keratitis.

### **Multimodal imaging of small hard retinal drusen in young healthy adults (see page 146)**

Multimodal imaging of small hard macular drusen in young adults is associated with thickening of the RPE and photoreceptor abnormalities. These findings are consistent with the possibility that the quantum lesion element of small hard drusen could be a single RPE cell.