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doi:10.1136/bjo-2022-323107

**Normative data and percentile curves for axial length and axial length/corneal curvature in Chinese children and adolescents aged 4 to 18 years (see page 167)**

A probability model based on age, gender, axial length and axial length/corneal curvature percentiles has significant value in screening for myopia in Chinese children; additionally, the percentile charts constructed using the LMS method provide reference data and aid in monitoring changes over time.

**Progression of keratoconus in children and adolescents (see page 176)**

In this longitudinal study, the majority of eyes (77%) of individuals  $\leq 18$  years old showed progression of keratoconus based on changes in corneal tomography. More advanced keratoconus at presentation was associated with continued progression.

**Dropless penetrating keratoplasty using a subconjunctival dexamethasone implant. Safety pilot study (see page 181)**

This pilot study reports the tolerance and safety of a subconjunctival dexamethasone implant in 14 patients undergoing penetrating keratoplasty. No increase in IOP or other adverse event related to the implant was observed.

**Prognostic significance of matrix metalloproteinase 9 in COMET operated chronic ocular Stevens-Johnson syndrome (see page 187)**

Aberrant expression of MMPs in the pannus epithelium and stroma in chronic ocular SJS revealed that high epithelial MMP9 expression predicts post-COMET graft failure and poor visual outcome.

**Morphological variants of meibomian glands: correlation of meibography features with histopathology findings (see page 195)**

Among the different morphological appearances of Meibomian glands noted on meibography, hooked, tortuous, and overlapping glands had normal histological features. Severely short glands showed atrophic changes, while glands were completely missing in areas of drop-out.

**Big-data and artificial-intelligence-assisted vault prediction and EVO-ICL size selection for myopia correction (see page 201)**

Random Forest, Gradient Boosting, and XGBoost models are applicable for post-operative vault predicting and ICL sizing. AI may have capability to assist ophthalmologists in improving the safety of equivalent surgical operations, designing surgical strategies, and predicting clinical outcomes soon.

**Central macular OCTA parameters in glaucoma (see page 207)**

OCTA-measured foveal vessel density was associated with central  $10^\circ$  visual sensitivity and foveal threshold. Central  $10^\circ$  visual sensitivity and foveal threshold were both associated with a smaller foveal avascular zone area.

**Glucagon-like peptide 1 receptor (GLP-1R) agonist use is associated with reduced risk for glaucoma (see page 215)**

GLP-1R agonist use by diabetic patients halved the risk for a new diagnosis of glaucoma. These results provide a preliminary impetus to consider GLP-1R agonists as preferred therapy for diabetic patients at high risk for glaucoma.

**Low dose transscleral cyclophotocoagulation with subsequent phacoemulsification in the treatment of prolonged acute primary angle closure (see page 221)**

In prolonged acute angle closure, low dose cyclophotocoagulation led to intraocular pressure lowering, possibly through cyclophotocoagulation-induced supraciliary effusion. This treatment strategy could serve as a relatively safe and effective bridge therapy prior to phacoemulsification in these eyes.

**CYP1B1 and MYOC variants in neonatal-onset versus infantile-onset primary congenital glaucoma (see page 227)**

Neonatal-onset primary congenital glaucoma (PCG) with CYP1B1 mutations had more severe disease and worse outcomes than Infantile-onset PCG. Neonatal-onset PCG may be considered a separate entity of PCG with distinct genotypic and phenotypic characteristics.

**Spectral domain optical coherence tomography-based retinochoroidal cystine crystal score: a window into infantile nephropathic cystinosis (see page 234)**

Cystinosis is a lysosomal storage disease leading to an accumulation of cystine crystals in several organs. We examined chorioretinal cystine crystals by SD-OCT to describe a new biomarker for systemic disease control.

**Associations between systemic health and retinal nerve fibre layer thickness in preterm infants at 36 weeks post-menstrual age (see page 242)**

Our prospective observational study of 83 preterm infants suggested that low infant weight and sepsis/necrotising enterocolitis were independently associated with thinner retinal nerve fibre layer at 36 weeks post-menstrual age.

**Charles Bonnet syndrome in patients with Stargardt disease: prevalence and risk factors (see page 248)**

The prevalence of Charles Bonnet syndrome (CBS) was studied in 83 patients with a common genetic disorder, Stargardt disease caused by mutations in the ABCA4 gene. Does it change the presumed risk factors for CBS?

**Contrast sensitivity and quality of life following intravitreal ranibizumab injection for central retinal vein occlusion (see page 254)**

We investigated the relationship between contrast sensitivity (CS) and vision-related quality of life (VR-QOL) in patients with central retinal vein occlusion following ranibizumab intravitreal injection; CS showed a stronger association with VR-QOL than visual acuity.

**Associations of systemic health and medication use with the enlargement rate of geographic atrophy in age-related macular degeneration (see page 261)**

Our analysis of 318 eyes in the Age-Related Eye Disease study showed that geographic atrophy in the fellow eye, cholesterol-lowering medication use, and diuretic use were independently associated with a higher geographic atrophy growth rate. These possible associations

do not imply causal relationships, investigation of which require prospective studies.

### **Associations of ophthalmic and systemic conditions with incident dementia in the UK Biobank (see page 275)**

Age-related macular degeneration, cataract, or diabetes-related eye disease and their clustering with systemic conditions was associated with a higher risk of dementia. Newly developed systemic conditions mediated the association between ophthalmic conditions and incident dementia.

### **Change in the ophthalmoscopic optic disc size and shape in a 10-year follow-up: the Beijing Eye Study 2001–2011 (see page 283)**

In axial elongation, Bruch's membrane opening in relationship to the lamina cribrosa shifts backward, leading to an intrapapillary overhanging of Bruch's membrane nasally, gamma zone temporally, and a vertically oval disc with reduced ophthalmoscopic size.

### **Dacryolithiasis diagnosis and treatment: a 25-year experience using nasal endoscopy (see page 289)**

Dacryolithiasis can be diagnosed preoperatively when permeable

nasolacrimal duct and mucocele are observed. Incision of Hasner's valve is a new technique described to evacuate dacryolithiasis through its physiological track.

### **Changing trends in ocular trauma during the COVID-19 pandemic in the US (see page 295)**

Annual incidence of ED-treated ocular trauma in the United States declined during the COVID-19 pandemic compared with pre-pandemic years (2011–2019), but there was a higher incidence of severe eye injuries.