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Long-term outcomes of deep anterior lamellar versus penetrating keratoplasty for keratoconus (see page 10)

In a long-term cohort study, deep anterior lamellar keratoplasty (DALK) and penetrating keratoplasty (PK) provided high rates of 20-year graft survival and good visual recovery in keratoconus. However, DALK was associated with dramatically higher long-term endothelial survival and a lower risk of postoperative ocular hypertension.

Vaccine-associated corneal graft rejection following SARS-CoV-2 vaccination: a CDC-VAERS database analysis (see page 17)

The Vaccine Adverse Event Reporting System database analysis showed a possible temporal relationship between corneal graft rejection and SARS-CoV-2 vaccination, with an earlier onset following the second dose of BNT162b2 vaccine.

Sex-related differences and hormonal effects in the dry eye assessment and management (DREAM) study (see page 23)

This study showed that women had significantly more severe dry eye disease signs compared with men and that postmenopausal women have more severe dry eye disease signs compared with premenopausal women.

Early ocular surface and tear film status in congenital aniridia indicates a supportive treatment window (see page 30)

Ocular surface disease appears in congenital aniridia later than the age of ten years regardless of genetic status or keratopathy stage. Supportive treatment in the first decade of life is recommended to delay development of keratopathy.

Biological effects of stored platelet-rich plasma eye drops in corneal wound healing (see page 37)

Synopsis: This study determined the effects of low-temperature storage on the efficacy and sterility of platelet-rich plasma eye drops. This knowledge may expand the clinical use of platelet-rich plasma to refractory keratoconjunctival epithelial disorders.

Actual lens positions of three intraocular lenses in highly myopic eyes: an ultrasound biomicroscopy-based study (see page 45)

Intraocular lenses with good capsular support show less backward bending in highly myopic eyes, which leads to a more stable lens position and refractive status after cataract surgery.

Smoking, dietary factors and major age-related eye disorders: an umbrella review of systematic reviews and meta-analyses (see page 51)

Only current smoking showed convincing (class I) evidence as a risk factor for cataract. Ever smoking associated with cataract and fish consumption associated with age-related macular degeneration had highly suggestive (Class II) evidence.

Bleb-related infection after primary trabeculectomy: medical chart reviews from 1993 to 2021 (see page 58)

A review of 1663 eyes over 28 years found a cumulative incidence of 1.86 per 1000 person-year of bleb-related infection after trabeculectomy in Taiwanese. Besides wound manipulation, high myopia and hyperlipidaemia were significant risk factors.

Use of UBM to predict the outcome of anterior segment reconstruction in congenital fibrovascular pupillary membrane with secondary glaucoma (see page 65)

We summarise the clinical outcome of anterior segment reconstruction and found that UBM-based classification, which we reported previously, could be taken as a guide on surgical management and prognosis in this disease.

Identifying central 10 degrees visual sub-field associated with future worsening of visual acuity in eyes with advanced glaucoma (see page 71)

In advanced glaucoma eyes with well controlled intraocular pressure, careful attention is needed when the mean total deviation values in the temporal papillo-macular bundle sub-visual field with Humphrey Field Analyzer 10–2 are low.

Accuracy of pattern deviation in estimating the glaucomatous damage in the central 10° visual field in eyes with glaucoma and cataract (see page 78)

Pattern deviation of the central 10° visual field in eyes with glaucoma and cataract may be affected by the severity of glaucoma or cataract, which may lead to inaccurate estimates of glaucomatous visual field damage.

Rates of choroidal loss and ganglion cell inner-plexiform layer thinning in type 2 diabetes mellitus and healthy individuals: a 2-year prospective study (see page 84)

Based on a 2-year longitudinal study of 895 type 2 diabetic patients and 847 healthy controls, we found that diabetic patients, with or without diabetic retinopathy, undergo accelerated choroidal and ganglion cell inner-plexiform layer thinning.

Detection of diabetic neovascularisation using single-capture 65° wide-field optical coherence tomography angiography (see page 91)

Sensitivity of proliferative diabetic retinopathy diagnosis was 0.95 using single-capture wide-field optical coherence tomography angiography with a high agreement of neovascularisation detection in the temporal fields in comparison to ultra-widefield fluorescein angiography.

Quality assessment of colour fundus and fluorescein angiography images using deep learning (see page 98)

We propose an AI method for automated quality assessment of colour fundus and fluorescein angiography images, providing comprehensive predictions in multiple quality categories, promoting its integration into workflows of reading centres and clinical routine.

Arterial hypertension and retinal layer thickness: the Beijing eye study (see page 105)

Thickness of the retinal nerve fibre layer, ganglion cell layer and photoreceptor outer segment layer in normal eyes was inversely, and thickness of the inner nuclear layer was positively, associated with higher blood pressure.

Predicting 60–4 visual field tests using 3D facial reconstruction (see page 112)

The effect of facial contour on 60–4 visual field defects has not been elucidated. In this study, a convolution neural network-augmented platform allowed for prediction of 60–4 field defects due to facial contour.

Optical coherence tomography angiography for the characterisation of retinal microvasculature alterations in pregnant patients with anaemia: a nested case control study (see page 117)

Major retinal characteristics of anaemia during pregnancy include shrinkage, irregularity of the foveal avascular zone and compensatory alterations in microvasculature perfusion, which are detectable to optical coherence tomography angiography (OCTA). Our study demonstrates the potential of non-invasive and real-time assessment of anaemia during pregnancy.

Ten-year experience with intracameral chemotherapy for aqueous seeding in retinoblastoma: long-term efficacy, safety and toxicity (see page 124)

Intracameral chemotherapy performed according to a previously described technique allows long-term regression of both primary and relapsing aqueous seeding in

retinoblastoma with no vision-threatening adverse effects.

Likelihood of germline mutation with solitary retinoblastoma based on tumour location at presentation (see page 131)

Solitary retinoblastoma located in the macula poses an increased likelihood for germline mutation (OR=2.18) compared with extramacular tumours; therefore, tumour location may help promptly predict genetic status and can provide immediate insight regarding treatment planning.

Ophthalmological outcome of 6.5 years children treated for retinopathy of prematurity – a Swedish register study (see page 137)

Ophthalmological problems in children treated for retinopathy of prematurity were common, emphasising the need of long-term follow-up. Retreatment was a risk factor for poor outcome and highlights the importance of an accurate first treatment.

Prevalence of refractive errors among school-going children in a multi-state study in India (see page 143)

Vision screening was conducted in 2.24 million children, 3.53% of whom

were found to have refractive error. Myopia was associated with older age, female gender, private school attendance, urban location and varied between states ($p < 0.001$).

Does an integrated school eye health delivery model perform better than a vertical model in a real-world setting? A non-randomised interventional comparative implementation study in Zanzibar (see page 152)

The integrated school eye health delivery model achieved better reach, effectiveness, adoption and implementation than the vertical model in Zanzibar, but both models were discontinued when external funding ceased.

Do adolescents with impaired vision have different intentions and ambitions for their education, career and social outcomes compared with their peers? Findings from the Millennium Cohort study. (see page 159)

In this contemporary national birth cohort, adolescents with impaired vision had similar intentions and ambitions regarding their future education, careers and social outcomes as their normally sighted peers.