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Extending the utility of anterior corneal buttons through refrigeration and glycerol cryopreservation: utility rate and outcome analysis (see page 1415)

Glycerol cryopreservation can safely extend the utility of donor anterior corneal grafts for up to two years. This method not only reduced the wastage of scarce donor corneal tissue but also was cost effective.

Clinical course and treatment of archipelago keratitis: a Herpesviridae keratitis subtype (see page 1419)

Archipelago keratitis is a Herpesviridae stromal keratitis subtype associated with a high recurrence rate, requiring antiviral and anti-inflammatory drugs over a long-term period.

Effect of eyelid muscle action and rubbing on telemetrically obtained IOP in glaucoma patients with an intraocular pressure sensor implant (see page 1425)

In eleven primary open-angle glaucoma patients with an implanted telemetric IOP sensor, changes in IOP were detected at the time of eyelid blinking, closure (n=9), squeezing (n=11) and rubbing (n=7), with particularly high IOP with eyelid squeezing and rubbing (mean 42 and 59 mmHg above baseline).

Neurofilament light chain: a new marker for neuronal decay in the anterior chamber fluid of patients with glaucoma (see page 1432)

Neurofilaments are used to monitor neuronal decay in a broad spectrum of neurodegenerative diseases. Here we demonstrate for the first time that neurofilament light chains are quantitatively elevated in anterior chamber fluid of glaucoma patients.

Parapapillary choroidal microvascular density in acute primary angle closure and primary open-angle glaucoma: an optical coherence tomography angiography study (see page 1438)

Decreased parapapillary choroidal microvascular density was greater in primary open-angle glaucoma (POAG) than acute primary angle closure (APAC), suggesting IOP-induced ischemic injury in AACG rather than primary choroidovascularopathy, as in POAG.

Factors associated with choroidal microvascular drop-out change (see page 1444)

In this observational cohort study, greater IOP fluctuation, higher peak IOP, worse baseline VF MD and greater number of glaucoma medications were significantly associated with choroidal microvasculature drop-out enlargement in glaucomatous eyes.

Cost-effectiveness of primary surgical versus primary medical management in the treatment of patients presenting with advanced glaucoma (see page 1452)

Advanced glaucoma is associated with sight loss. This within-trial economic evaluation compared medical and surgical management strategies. At two years medication appears more cost-effective though longitudinal outcomes are an important subject for future research.

Glaucoma in rural China (the rural epidemiology for glaucoma in China (REG-China)): a national cross-sectional study (see page 1458)

The Rural Epidemiology for Glaucoma in China is a population-based study conducted in 10 provinces with 52,041 individuals, representing the first detailed epidemiological investigation of glaucoma status across a rural Chinese population.

Importance of subfoveal fluid height on visual outcome in macula-off retinal detachments (see page 1467)

Best-corrected visual acuity at 3 months after macula-off retinal detachment repair with pars plana vitrectomy and gas tamponade is related to pre-operative subfoveal fluid height regardless of duration of symptomatic loss of central vision within one week.

Increased incidence of endophthalmitis after vitrectomy relative to face mask wear during COVID-19 pandemic (see page 1472)

In Japan, where strict mask use was required during the COVID-19 pandemic, the incidence of post-vitrectomy endophthalmitis was increased. Increased frequency of oral bacteria as pathogens suggests its possible relationship to mask use.

Ongoing retinal degeneration despite intravitreal enzyme replacement therapy with cerliponase alfa in late-infantile neuronal ceroid lipofuscinosis type 2 (CLN2 disease) (see page 1478)

Retinal degeneration is a classic feature in late-infantile neuronal ceroid lipofuscinosis type 2 (CLN2 disease) and can be visualised by optical coherence tomography (OCT). Progressive retinal degeneration can be observed, despite intravitreal enzyme replacement therapy with cerliponase alfa and the associated alleviation of neurological symptoms.

Prediction of visual impairment in retinitis pigmentosa using deep learning and multimodal fundus images (see page 1484)

Deep learning techniques can be used to detect visual impairment in retinitis pigmentosa, based on a cut-off of Snellen VA 20/40 and using only a single-slice transfoveal optical coherence tomography image.

Nationwide trends in emergency department utilisation for acute retinal ischemia in the United States, 2011-2018 (see page 1490)

According to nationwide emergency department data, most patients with acute retinal ischemia in the United States do not present to the emergency department, and less than half of those who are evaluated in the emergency department are hospitalised.

Multimodal imaging analysis for the impact of retinal peripheral lesions on central neurovascular structure and retinal function in type 2 diabetes with diabetic retinopathy (see page 1496)

This study aimed to explore the impact of peripheral lesions on central retinal structure and retinal function by applying multimodal imaging analysis. Our results demonstrated that the additional retinal lesions may be related to the deterioration of retinal function but not associated with worse central neurovascular alteration.

Safety and effectiveness of the fluocinolone acetonide intravitreal implant (ILUVIEN): 3-year results from the European IRIS registry study (see page 1502)

The European 5-year, real-world IRIS safety study found no unexpected safety concerns

and an improved long-term benefit-to-risk profile following the earlier use of the fluocinolone intravitreal implant in patients with diabetic macular oedema.

Incidence, progression, and regression of diabetic retinopathy in a northeastern Chinese population (see page 1509)

In this 2 year study cohort, high progression incidence of diabetic retinopathy was found in this cohort of northeastern Chinese population with type-2 diabetes.

Deep learning model to identify homonymous defects on automated perimetry (see page 1516)

This study created a novel deep learning artificial intelligence algorithm that can identify homonymous visual defects on automated perimetry with total accuracy of 87% and recall of 84%.

Nalbuphine as analgesic in preschool children undergoing ophthalmic surgery and the occurrence of emergence delirium (see page 1522)

The use of intravenous nalbuphine leads to adequate analgesia in preschool children after ophthalmic surgery and seems to have a positive impact on the occurrence of arousal agitation.

Comparison of biometric and refractive changes in intermittent exotropia with and without over-minus lens therapy (see page 1526)

This randomised study demonstrated no difference in changes to refraction and ocular biometric parameters between the children treated with or

without over-minus lens for intermittent exotropia.

Role of corneal radius of curvature for early identifying fundus tessellation in children with low myopia (see page 1532)

More than half of children with low myopia in Shanghai were found to have fundus tessellation. Low myopic children with a large corneal radius of curvature should regularly undergo fundus photography to enable preliminary screening for fundus tessellation.

Oral administration of caffeine metabolite 7-methylxanthine is associated with slowed myopia progression in Danish children (see page 1538)

The caffeine metabolite 7-methylxanthine (7MX) was licensed in Denmark in 2009 as a treatment to reduce the rate of childhood myopia progression. Longitudinal cycloplegic refraction and axial eye length data for 711 children treated with varying doses of oral 7MX (0–1200 mg per day) were analysed using linear mixed models. Oral intake of 7MX was found to be associated with reduced myopia progression and axial eye growth in this sample of myopic children.

Genetic and clinical landscape of ARR3-associated MYP26: the most common cause of Mendelian early-onset high myopia with a unique inheritance (see page 1545)

ARR3 is the most frequently implicated gene for Mendelian early-onset high myopia. ARR3-associated MYP26 is transmitted in a unique X-linked female-limited inheritance and manifests with mild cone impairment.

Novel ophthalmic findings and deep phenotyping in Williams-Beuren syndrome (see page 1554)

Williams-Beuren syndrome is a complex multisystem genetic disorder with ophthalmic manifestations that we describe in more detail and report novel findings that expand the phenotype.

Predicting the risk of distant and local recurrence for patients with ocular adnexal extranodal marginal zone lymphoma: a matched case-control study (see page 1560)

Local and distant recurrence are identified as distinct events of ocular adnexal extranodal marginal zone lymphoma. The nomogram based on monocyte percentage, M category and age may support rapid therapeutic strategy decisions in its management.

Hand grip strength and ocular associations: the Ural eye and medical study (see page 1567)

Lower hand grip force as prognostic factor for all-cause mortality was, in a population-based study from Russia, additionally associated (multivariable analysis) with visual impairment, shorter axial length, lower intraocular pressure, thinner retinal nerve fibre layer thickness, and diabetic retinopathy

Urocortin-positive nerve fibres and cells are present in the human choroid (see page 1575)

The choroid contains urocortin-positive nerve fibres. These could originate from intrinsic choroidal neurons, or from few cells in the pterygopalatine or trigeminal ganglion.