Highlights from this issue

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Implementation of a cloud-based referral platform in ophthalmology: making telemedicine services a reality in eye care (see page 312)

After implementation of a cloud-based referral platform, the data flow between optometrists and ophthalmologists has improved. More than half of the referrals to hospital eye services have been avoided.

Automated identification of malignancy in whole slide pathologic images: identification of eyelid malignant melanoma in gigapixel pathologic slides using deep learning (see page 318)

An improved, high-accuracy deep learning system for analysing melanoma pathology slides was developed, which could work as a supplementary diagnostic system to help pathologists in screening and diagnosis verification.

The Royal College of Ophthalmologists National Ophthalmology Database study of cataract surgery: report 6, The impact of EyeSi virtual reality training on complications rates of cataract surgery performed by first and second year trainees (see page 324)

Between 2009–2016 the introduction of EyeSi cataract surgery training was associated with a 38% reduction in the posterior capsule rupture rate for surgery performed by first and second year trainees, in 23 UK hospitals

Systemic medications and cortical cataract: The Singapore Epidemiology of Eye Diseases Study (see page 330)

In this large Asian population-based study, ACE inhibitors, fibrates and alpha-glucosidase inhibitors were associated with an increased prevalence of cortical cataract, independent of the presence of hypertension, hyperlipidemia and diabetes, respectively.

Comparison of corneal densitometry between big-bubble and visco-bubble deep anterior lamellar keratoplasty (see page 336)

The viscoelastic substance used to obtain bubble formation in the VB-DALK technique may induce transient hyper reflectivity of the stromal interface and concurrent reduced visual acuity; corneal densitometry allows a quantitative evaluation of the interface modifications.

Sutureless superficial anterior lamellar keratoplasty for recurrent corneal haze after repeat excimer laser surface ablation (see page 341)

Sutureless superficial anterior lamellar keratoplasty eliminates at least for a period of 5 years' recurrence in cases of surface ablation related corneal haze unresponsive to additional laser treatment.

Long-term outcomes of ocular adnexal lesions in IgG4-related ophthalmic disease (see page 345)

There might be different proliferative activity, clinical behaviour, and prognoses among different types of ocular adnexal lesions in IgG4-related ophthalmic disease.

Long-term outcomes following resection-recession vs plication-recession in children with intermittent exotropia (see page 350)

In children with intermittent exotropia, long-term surgical outcomes were better after performing the RR than RP. Durations of exodrift were longer in the RP group and early postoperative overcorrection was important to achieve favourable outcomes.

International multicentre retrospective cohort study of ocular adnexal marginal zone B-cell lymphoma (see page 357)

Extranodal marginal zone B-cell lymphoma of the ocular adnexa is a slow-growing tumour with a very good patient outcome with a 5 year, 10 year, and 20 year disease-specific survival of 96%, 91%, and 90%, respectively.

Defocus incorporated multiple segments (DIMS) spectacle lenses slow myopia progression: a 2 year randomised clinical trial (see page 363)

In a randomised double-masked trial enrolling myopic children aged 8–13 years, children wearing DIMS lenses had 52% (−0.44D) less myopia progression and 62% (0.34mm) less axial elongation than those wearing single vision spectacle lenses.

Binocular game vs part-time patching for treatment of anisometropic amblyopia in Chinese children: a randomised clinical trial (see page 369)

The binocular game used in this study was not as good as patching in amblyopic-eye visual acuity improvement in Chinese

children with anisometropic amblyopia and showed no superiority in binocularity improvement over patching.

Effect of trabeculectomy on corneal endothelial cell loss (see page 376)

This prospective, observational study found that uveitic glaucoma was a risk factor for a large decrease in the corneal endothelial cell density after trabeculectomy.

The prevalence of treatment with glaucoma medication in Scotland 2010–17 (see page 381)

The number of patients on medication for glaucoma and ocular hypertension in Scotland increased at more than twice the rate expected by population ageing over the period 2010–2017.

Appositional angle closure and conversion of primary angle closure into glaucoma after laser peripheral iridotomy (see page 386)

The conversion of primary angle closure into primary angle closure glaucoma following laser peripheral iridotomy was related to extensive appositional angle closure at baseline.

Rho-associated protein kinase inhibitor-induced morphologic changes in type VI collagen in the human trabecular meshwork (see page 392)

Electron micrographs revealed that administering the rho kinase inhibitor ripasudil to patients with primary open angle glaucoma induced morphological changes in type VI collagen.

Relationship between lamina cribrosa curvature and the microvasculature in treatment-naïve eyes (see page 398)

Greater lamina cribrosa deformation was associated with a smaller microvascular density within the lamina cribrosa in eyes with treatment-naïve normal-tension glaucoma, indicating that mechanical strain potentially influences the perfusion within the lamina cribrosa.

Optical coherence tomography angiography of peri-limbal vasculature: validation of a standardised imaging algorithm (see page 404)

Optical coherence tomography angiography is a reliable and accurate technique of objectively quantifying relative changes

of vessel calibre (vasoconstriction and vasodilatation) in the peri-limbal vasculature in both normal eyes and in eyes with pterygium.

Longitudinal ellipsoid zone and subretinal fluid mapping following ocriplasmin injection in the prospective observational ORBIT trial (see page 410)

In this prospective, observational study, ocriplasmin injection resulted in vitreomacular traction release in 67% of subjects, 4.5 letter visual acuity gain, and ellipsoid zone alterations which recovered to baseline.

Alteration of choroidal vascular structure in diabetic retinopathy (see page 417)

This study divided diabetic subjects into systemic diabetes mellitus treatments and no history of the treatment groups, and analysed choroidal structure using binarization methods in a large number of patients. The authors observed choroidal structures change based on severity of

diabetic retinopathy especially in the latter patients.

Visual acuity outcomes in Coats disease by classification stage in 160 patients (see page 422)

Analysis of 160 eyes with Coats disease by classification stage revealed more advanced stage with worse presenting ($p < 0.001$) and final visual acuity ($p < 0.001$), likely due to greater extent of telangiectasia ($p < 0.001$), light bulb aneurysms ($p < 0.001$), exudation ($p < 0.001$), and subretinal fluid ($p < 0.001$).

Utility of digitally-assisted vitreoretinal surgery systems for high-volume vitreoretinal surgery centre: A pilot study (see page 432)

Surgeons, even the naïve ones, can perform various posterior segment manoeuvres with digitally-assisted vitreoretinal surgery system efficiently, easily and comfortably. Most surgeons feel that it will replace microscope for performing surgeries in near future.

Comparison of anterior capsulotomy techniques: continuous curvilinear capsulorhexis, femtosecond laser-assisted capsulotomy and selective laser capsulotomy (see page 437)

Scanning electron microscopy findings of capsular edges following differing methods of anterior capsulotomy reveal why there are significant differences in capsule edge strength shown in this human paired eye study comparing three different capsulotomy techniques.

Genetic aspects of idiopathic paediatric uveitis and juvenile idiopathic arthritis associated uveitis in Chinese Han (see page 443)

This study shows that six susceptibility loci of juvenile idiopathic arthritis contribute to the genetic background of juvenile idiopathic arthritis associated uveitis, whereas none of these susceptibility loci were shown to be involved in idiopathic paediatric uveitis.