Highlights from this issue

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Indications and prognosis for keratoplasty in eyes with severe visual impairment and blindness due to corneal disease in India (*see page 17*)

In this hospital-based study of 28 824 patients with severe visual impairment or blindness due to corneal disease, the authors observed that the aetiology in more than half of the affected cases, carried an unfavourable prognosis for keratoplasty.

Multicentre study: reliability and repeatability of Scheimpflug system measurement in keratoconus (*see page 22*)

The authors report criteria for monitoring progression in keratoconus based on real measurements with a Scheimpflug system.

Four-year outcomes of small incision lenticule extraction (SMILE) to correct high myopic astigmatism (*see page 27*)

In the long run, SMILE shows a tendency to under-correction when correcting high astigmatism.

Prevalence and risk factors for visual impairment among elderly residents in homes for the aged in India: The Hyderabad Ocular Morbidity in Elderly Study (HOMES) (*see page 32*)

Visual impairment is common affecting close to a third of the elderly in residential care in Hyderabad, India. Fortunately, over 80% of this visual impairment can be addressed with cost-effective interventions such as spectacles and cataract surgery.

Reduced stereoacuity as a predictor for clinically significant convergence insufficiency (*see page 37*)

In children, normal stereoacuity prevalence increases significantly as convergence improves. Multivariate logistic regression revealed stereopsis was the best predictor for convergence insufficiency (CI). In a small subgroup of subjects, CI treatment led to improved stereoacuity.

Naevus of Ota: clinical characteristics and proposal for a new ocular classification and grading system (*see page 42*)

This study summarises the ocular clinical presentation, imaging and outcome of

patients with Naevus of Ota and present a new ocular classification for the condition.

Prognostic significance of immune checkpoints in the tumour-stromal microenvironment of sebaceous gland carcinoma (*see page 48*)

Sebaceous gland carcinoma (SGC) is an aggressive, malignant tumour of the eyelid associated with metastasis and recurrence. The expression of PD-1 in tumour infiltrating lymphocytes and PD-L1 in tumour cells could prove to be an important prognostic biomarker for SGC patients.

Effect of plaque brachytherapy dose and dose rate on risk for disease-related mortality in 1238 patients with choroidal melanoma (*see page 57*)

In plaque brachytherapy of choroidal melanoma, reduced dosage and dose rate does not influence the risk of melanoma-related mortality.

Retinoblastoma in Finland 1964-2014: Incidence and survival (*see page 63*)

The incidence of familial retinoblastoma has increased in Finland in 1964–2014. Excluding familial cases, the overall incidence remained stable. Survival after retinoblastoma and mortality to second malignancy was in line with other national cohorts.

Clinical and laboratory characteristics of ocular syphilis and neurosyphilis among individuals with and without HIV infection (*see page 70*)

Retrospective analysis of patients diagnosed with ocular syphilis to determine the clinical and laboratory characteristics of ocular- and neurosyphilis among individuals with and without HIV infection. 215 eyes of 146 patients were included.

Prevalence and clinical features of systemic diseases in Chinese patients with uveitis (*see page 75*)

This large survey of a nationally representative cohort of the Chinese uveitis population, provides an updated epidemiological profile and description of the clinical features of systemic diseases associated with uveitis in China.

Clinical and genetic features of probands and affected family members with familial exudative vitreoretinopathy in a large Chinese cohort (*see page 83*)

This is probably the largest angiographic and molecular survey of FEVR families. It provides a comprehensive landscape of heterogeneity and intrafamilial variability of FEVR.

Prevalence and genetic-phenotypic characteristics of patients with USH2A mutations in a large cohort of Chinese patients with inherited retinal disease (*see page 87*)

Patients with USH2 had more deleterious genotypes than those with RP, resulting in earlier onset and more rapid progression in the first 10 years, but the difference is not obvious over 10 years.

Intraoperative iatrogenic retinal breaks in 23-gauge vitrectomy for stage 3 and stage 4 idiopathic macular holes (*see page 93*)

There are two main types of intraoperative iatrogenic retinal breaks based on causes: induction of posterior vitreous detachment and traction from peripheral vitreous cutting. The presence of lattice may not be a risk factor.

Choriocapillaris flow impairment could predict the enlargement of geographic atrophy lesions (*see page 97*)

In this study, we reported in vivo a greater impairment of the choriocapillaris in the area that subsequently developed expansion of the geographic atrophy lesion during 1 year of follow-up using optical coherence tomography angiography.

Risk factors for subretinal fibrosis after anti-VEGF treatment of myopic choroidal neovascularisation (*see page 103*)

This study assessed the incidence, clinical features, and predictive risk factors of subretinal fibrosis after treatment of active myopic choroidal neovascularisation with anti-vascular endothelial growth factor.

Retinal cavitations in macular telangiectasia type 2 (MacTel): longitudinal structure-function correlations (*see page 109*)

Cavitations are signs of neurodegeneration in macular telangiectasia type 2. In

this study, we show that increased cavitation is predictive of worsening visual acuity independent of ellipsoid zone loss.

RAP study, report 1: novel subtype of macular neovascularisation type III, cilio-retinal MNV3 (see page 113)

The aim of this study is to report a novel subtype of macular neovascularization type three where the feeding arteriole emerges, not from the retinal, but from the choroidal vasculature; cilio-retinal arteries. 50 consecutive cases of usual MNV3 without a CRA were included as a control group.

Widefield optical coherence tomography angiography for early detection and objective evaluation of proliferative diabetic retinopathy (see page 118)

Using widefield optical coherence tomography angiography (WF-OCTA) resulted in higher detection rate of proliferative diabetic retinopathy than clinically. Phenotypic characterisation of

neovascularisation at the disc on OCTA is also provided.

Retinal blood flow reduction in normal-tension glaucoma with single-hemifield damage by doppler optical coherence tomography (see page 124)

Doppler optical coherence tomography showed a decrease in retinal blood flow in normal-tension glaucoma, and blood flow reduction was associated with normal-tension glaucoma independent from the structural loss.

Evaluation of meridional scans for angle closure assessment with anterior segment swept-source optical coherence tomography (see page 131)

The single Swept-Source OCT scan at 80° to 260° had the highest diagnostic performance (AUC 0.82), performing better than the most common used combinations of single scans. This approach may be more efficient than the 360° analysis.

Binocular superior visual field areas associated with driving self-regulation in patients with primary open-angle glaucoma (see page 135)

Damage in superior-peripheral visual field was associated with avoiding driving at night and in rain, whereas that in superior-central field was related with avoiding driving in fog.

Tear neuromediators in eyes on chronic topical antiglaucoma therapy with and without BAK preservatives (see page 141)

This study highlights the alterations in tear neuropeptide levels in chronic glaucoma medications with and without BAK preservative. Ocular surface tests, tear neuropeptides levels alterations and corneal subbasal nerve fibre layer imaging between BAK-free and BAK-preserved glaucoma medication usage, demonstrated equivocal results, though the changes are significant in comparison to control eyes.