



## Highlights from this issue

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Keith Barton, Jost B Jonas,<sup>ORCID</sup> James Chodosh<sup>ORCID</sup>, *Editors in chief***Incidence of exudative age-related macular degeneration and treatment load under the Korean National health insurance system in 2010–15 (see page 1361)**

This population-based cohort study investigated the incidence of exudative age-related macular degeneration and associated use of ranibizumab and aflibercept in South Korea, which is one of the few Asian countries providing national health care insurance.

**Macular vessel reduction as predictor for recurrence of macular oedema requiring repeat intravitreal ranibizumab injection in eyes with branch retinal vein occlusion (see page 1367)**

Eyes with greater loss of macular capillaries after an initial intravitreal ranibizumab injection were noted to have fewer recurrences of macular oedema in eyes with a prior branch retinal vein occlusion.

**Collateral vessels on optical coherence tomography angiography in eyes with branch retinal vein occlusion (see page 1373)**

Collateral vessel formation was observed in the acute phase in eyes with BRVO and more frequently after major or ischaemic type BRVO's. In addition, the presence of collateral vessels was associated with resolution of macular oedema, though the presence of microaneurysms in the collateral vessels was sometimes positively associated with macular oedema.

**Intraocular pressure change after injection of intravitreal dexamethasone (Ozurdex) implant in Korean patients (see page 1380)**

The incidence of prolonged adverse intraocular pressure elevation was significantly lower than reported in previous Western population-based studies. Intravitreal dexamethasone injection may be an effective and safe treatment modality for macular oedema in Asian patients.

**Hypotensive efficacy of topical brimonidine for intraocular pressure spikes following intravitreal injections of anti-vascular endothelial growth factor agents: a randomised crossover trial (see page 1388)**

In this randomised crossover trial of 58 eyes without glaucoma, the intraocular pressure spike following intravitreal

injection of anti-VEGF agents was significantly reduced from a mean of 42mmHg to 34mmHg when topical brimonidine tartrate was pre-administered.

**Success of trabeculectomy surgery in relation to cataract surgery: 5-year outcomes (see page 1395)**

Trabeculectomy success at 5 years was similar, in eyes which had trabeculectomy alone, cataract surgery and then trabeculectomy any time afterwards, and trabeculectomy with cataract surgery performed within 2 years of trabeculectomy.

**Clinical relevance of protruded retinal layers in minimum rim width measurement of the optic nerve head (see page 1401)**

Neuroretinal rim width measurements with optical coherence tomography were observed to encompass layers other than the retinal nerve fibre layer. However, correcting rim width estimates by subtracting these layers was not noted to alter the diagnostic accuracy for glaucoma.

**Normative pattern and determinants of outer retinal thickness in an Asian population: the Singapore epidemiology of eye diseases study (see page 1406)**

In this large sample of multi-ethnic Asian population, we provided normative SD-OCT data on outer retinal thickness profile. Females had thinner outer retina than males. Ethnic differences in outer retinal thickness were minimal.

**The influence of uveitis on Bruch's membrane opening minimum rim width and retinal nerve fibre layer thickness measurements (see page 1413)**

Uveitis leads to increased Bruch's membrane opening – minimum rim width and retinal nerve fibre layer thickness measurements. Therefore, those measurements should be interpreted with caution in these patients, especially in the presence of papillary leakage or active inflammation.

**Revised criteria of international workshop on ocular sarcoidosis (IWOS) for the diagnosis of ocular sarcoidosis (see page 1418)**

Criteria for the diagnosis of ocular sarcoidosis were discussed and revised, based on a survey questionnaire and a consensus

workshop by the International Workshop on Ocular Sarcoidosis Study Group.

**Antibodies to myelin oligodendrocyte glycoprotein in chronic relapsing inflammatory optic neuropathy (see page 1423)**

Chronic Relapsing Inflammatory Optic Neuropathy (CRION) was predominantly found in adults with unilateral optic neuritis and exhibited a higher rate of seropositive MOG-IgG. MOG-CRION was found in younger patients at onset, with more bilateral involvement and more relapse tendency.

**Optic nerve appearance as a predictor of visual outcome in patients with idiopathic intracranial hypertension (see page 1429)**

In this large retrospective study of 708 eyes of 360 idiopathic intracranial hypertension, papilloedema grade was associated with the presence and severity of optic disc haemorrhage and cotton wool spots at presentation ( $p < 0.001$ ), whereas neither optic disc haemorrhage and cotton wool spots were associated with visual function at final follow-up.

**Long-term efficacy of fractionated conformal radiotherapy for the management of primary optic nerve sheath meningioma (see page 1436)**

Fractionated conformal radiation therapy is an effective and safe long-term treatment for patients with optic nerve sheath meningiomas causing visual loss and/or other neuro-ophthalmic manifestations. The authors believe that this should be first-line therapy for such patients.

**Combination of multimodal imaging features predictive of choroidal nevus transformation into melanoma (see page 1441)**

Combinations of multimodal imaging factors can predict the risk of choroidal nevus transformation into melanoma. Clinicians should have a low threshold for ocular oncology referral when combinations of 3 or more factors are present.

**Circumscribed choroidal haemangioma: clinical and topographical features (see page 1448)**

In a multicentre review of 113 patients with circumscribed choroidal haemangioma, detailed clinical and topographical

data were obtained. The characteristic features of such haemangiomas are useful in distinguishing them from other types of intraocular tumours.

**Orbital apex venous cavernous malformation with optic neuropathy—treatment with multisession gamma knife radiosurgery (see page 1453)**

A retrospective cohort study that shows multisession gamma knife radiosurgery results in tumour shrinkage and visual improvement in patients with orbital apex venous cavernous malformation causing optic neuropathy.

**Outcomes and factors affecting them in patients with rhino-orbito-cerebral mucormycosis (see page 1460)**

Survival of the patient, retention of the globe and preservation of the vision was observed in nearly 3/5, 2/5, and 1/5 of patients with rhino-orbito-cerebral mucormycosis. Exenteration did not change the patients' survival.

**A retrospective study in 608 cases on the rate of surgical site infections after orbital surgery without prophylactic systemic antibiotics (see page 1466)**

In this retrospective study it was shown that clean-, and clean-contaminated orbital surgery could safely be performed without prophylactic systemic antibiotics. We suggest restricting the use of systemic antibiotic prophylaxis to surgical site infections.

**Pyogenic granuloma associated with conjunctival epithelial neoplasia: report of nine cases (see page 1469)**

Malignant conjunctival epithelial lesions may be hidden underneath or adjacent to a pyogenic granuloma. Thus, complete surgical removal of these lesions including their base followed by histopathological analysis is recommended.

**Classifying signs and symptoms of dry eye disease according to underlying mechanism via the Delphi method: the DIDACTIC study (see page 1475)**

Delphi consultation generated a weighted list of dry eye disease (DED) signs and symptoms to differentiate between disease mechanisms. An algorithmic tool

integrating these weightings could help general ophthalmologists tailor treatment to DED mechanism.

**Queensland microbial keratitis database; 2005–15 (see page 1481)**

This multi-centre case series estimates the incidence of microbial keratitis in Queensland to be 0.66 per 10 000 people with high bacterial susceptibility, an increasing trend in yeast culture and moulds peaked in 2010–2012.

**Fungal infection after endothelial keratoplasty: association with hypothermic corneal storage (see page 1487)**

A retrospective case series and a survey from 16 European eye banks suggest that *Candida* spp. infection following endothelial keratoplasty is strongly associated with the use of corneal tissue stored in hypothermic medium compared with organ culture.

**Effect of time to primary repair on final visual outcome after open globe injury (see page 1491)**

When primary repair is delayed beyond 24 hours after open globe injury, presenting visual acuity and time from injury to repair are the strongest predictors of outcome, independent of the development of endophthalmitis.

**Foveal microstructure and visual outcomes of myopic macular hole surgery with or without the inverted internal limiting membrane flap technique (see page 1495)**

This study demonstrates that the inverted internal limiting membrane (ILM) flap technique yields a higher macular hole (MH) closure rate and better foveal microstructure recovery than the ILM peeling technique in patients with highly myopic MH with or without retinal detachment.

**Reductions in final visual acuity occur even within the first three days after a macula-off retinal detachment (see page 1503)**

In eyes undergoing repair of macula-off retinal detachment with vitrectomy or combination vitrectomy and scleral buckle, duration of macular detachment

at the time of surgery affects final visual acuity, even within the first 3 days.

**Macular sensitivity in patients with congenital stationary night blindness (see page 1507)**

Significant reduction of macular light sensitivity thresholds in patients with congenital stationary night blindness compared with healthy subjects mirrors functional restrictions in macular regions and provide new aspects for visual disturbances in this disease.

**The effects of image brightness and contrast dynamic altering stimuli (DAS) when viewing video content on ocular blood flow (see page 1511)**

Our findings suggest that in subjects with and without glaucoma, systemic and ocular haemodynamics may be affected by image brightness and contrast dynamic altering stimuli via dichoptic video.

**Age-related changes in baseline reading acuity and speed as measured using RADNER reading charts in healthy eyes with best-corrected ETDRS distance acuity (see page 1518)**

We found that best-corrected reading acuity, reading speed, and ETDRS distance acuity remained unchanged in healthy adult eyes until a break-point was reached between ages 50 to 54 years and 55 to 59 years.

**A novel MYOC gene mutation in a Chinese family with primary open-angle glaucoma (see page 1524)**

A novel MYOC gene mutation (Y437H) is identified in a Chinese family. The genotype–phenotype correlations were established for seven of them with primary open angle glaucoma (POAG), which may aid in predicting the prognosis, in guiding therapy and in genetic counselling of POAG.

**A SNP located in an *AluJb* repeat downstream of *TMCO1*, *rs4657473*, is protective for POAG in African Americans (see page 1530)**

We found a role of a protective role of SNP in *TMCO1* gene, located in an *AluJb* region, which has been associated with primary open-angle glaucoma in African American population.