



Highlights from this issue

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Keith Barton, James Chodosh,¹⁶ Jost B Jonas¹⁶, *Editors in chief***Choriocapillaris and retinal vascular plexus density of diabetic eyes using Split-spectrum Amplitude-Decorrelation spectral domain optical coherence tomography angiography (see page 452)**

Capillary perfusion density in Choriocapillaris and retinal vascular plexuses in diabetic patients were observed in association with worsening retinopathy in comparison with healthy eyes using split-spectrum amplitude decorrelation spectral domain optical coherence tomography angiography.

Possible connection of short posterior ciliary arteries to choroidal Neovascularization in eyes with pathologic myopia (see page 457)

Residual blood flow was detected in eyes with Myopic choroidal neovascularization (mCNV) retained detectable blood flow even in the atrophic phase on Optical Coherence Tomography (OCT) angiography. OCT B scans and Indocyanine Green Angiography revealed that the mCNVs were continuous with scleral branches of the short posterior ciliary arteries.

Long-term visual outcome and its predictors in macular oedema secondary to retinal vein occlusion treated with dexamethasone implant (see page 463)

In a 24 month study, baseline visual acuity, early treatment response and the requirement for additional therapy, were predictive of the long-term outcome in patients with macular oedema secondary to retinal vein occlusion treated with a dexamethasone implant.

Microvascular abnormalities secondary to radiation therapy in neovascular age-related macular degeneration: findings from the INTREPID clinical trial (see page 469)

Stereotactic Radiotherapy led to Microvascular Abnormalities (MVAs) that are distinguishable from nonspecific retinal vessel abnormalities. Most MVAs did not result in visual loss. This study might help in the differentiation from SRT induced MVAs from other entities.

Correlation between aqueous flare and residual visual field area in retinitis pigmentosa (see page 475)

Aqueous flare, as measured with a laser flare cell metre, was negatively correlated with the residual visual field area in patients with retinitis pigmentosa.

Premacular membrane formation after scleral buckling for primary rhegmatogenous retinal detachment: a prospective study and pathophysiological insights (see page 481)

This study reports a high frequency of postoperative premacular membrane formation after rhegmatogenous retinal detachment repair with scleral buckling alone. In detachments involving the macular region, postoperative premacular membranes were severe, tending to anatomical progression and functional deterioration.

Intravitreal chemotherapy in retinoblastoma: expanded use beyond intravitreal seeds (see page 488)

This retrospective review highlights the successful use of intravitreal chemotherapy to treat subretinal seeds and retinal tumours.

The efficacy of intravitreal conbercept injection in the treatment of retinopathy of Prematurity (see page 494)

Forty-eight eyes of 24 infants with ROP were analysed after intravitreal conbercept injection treatment. A total of 83.3% of the infants obtained regression of retinopathy of prematurity after only one injection.

Iris anomalies and the incidence of ACTA2 mutation (see page 499)

Iris flocculi have been linked to thoracic aortic aneurysm and dissection due to ACTA2 mutations. In this series, no children with iris flocculi had ACTA2 mutation while 2 of 3 children with congenital mydriasis did.

Variability in the ocular phenotype in mucopolysaccharidosis (see page 504)

Prospective observational study, using objective measures of ocular phenotype in Mucopolysaccharidosis and correlating findings with disease type, genotype and treatment efficacy. Ocular phenotype was found to be variable, and ocular imaging useful, in detecting complications.

White matter microstructural alterations in amblyopic adults revealed by diffusion spectrum imaging with systematic tractography-based automatic analysis (see page 511)

Diffusion spectrum imaging in amblyopia adults suggests a possible association between abnormal early visual processing and alterations of white matter architecture, which may be related to some of amblyopia-related deficits.

Compared performance of spot and SW800 photoscreeners on Chinese children (see page 517)

Compared with standardised ophthalmic exams with ROC, both Spot and SW800 photoscreener provide accurate measurements of refractive error and strabismus, and satisfactory performance in detecting amblyopia risk factors in Chinese children between 4–6 years of age.

Delayed surgical treatment of orbital trapdoor fracture in the pediatric patients (see page 523)

Prompt surgical intervention right after diagnosis is preferable in paediatric patients with trapdoor fracture regardless of the entrapped contents, even though some recovery might be possible in the long term.

Incidence and clinical characteristics of congenital nasolacrimal duct obstruction (see page 527)

In this population-based cohort of 17 713 newborns, 1 in nine infants developed congenital nasolacrimal duct obstruction, accompanied primarily by mucopurulent discharge, without gender predilection, and associated with premature birth and Caucasian race.

Clinical presentation and management of corneal fistula (see page 530)

Corneal fistula is often underdiagnosed and can cause complications like phthisis bulbi, endophthalmitis and panophthalmitis. This case series highlights the importance of careful clinical examination in patients of healed keratitis that may harbour a fistula

Is combined cataract surgery associated with acute post-operative endophthalmitis? A nationwide study from 2005 to 2014. (see page 534)

According to the analysis of the French nationwide medical-administrative database, the incidence of acute post-operative endophthalmitis was higher after combined cataract surgery than after cataract surgery as a standalone procedure.

Cataract surgery refractive outcomes - representative standards in a National Health Service setting. (see page 539)

We present refractive outcomes from routine NHS cataract surgery. Benchmark standards set by the Royal College of Ophthalmologists are achievable, however, expecting all NHS units to meet higher benchmark standards is not yet feasible.

Femtosecond laser-assisted cataract surgery for the white cataract (see page 544)

In this case series of 58 white cataracts, the main complication of femtosecond laser-assisted cataract surgery was incomplete capsulotomy (17.2%). Risk factors for incomplete capsulotomy were Morgagnian cataract and increased lens thickness.

Evaluation of keratoconus progression (see page 551)

Evaluation of keratoconus progression should be performed by looking at multiple variables or indices consisting of multiple parameters like the D-Value. An increase in D-Value of 0.42/year showed the highest Youden-Index to identify eyes progressing.

Biomechanical Assessment of Healthy and Keratoconic Corneas (with/without Crosslinking) using dynamic ultra-high-speed Scheimpflug Technology and the relevance of the parameter (A1L-A2L) (see page 558)

This study identifies corneal biomechanical parameters in order to characterise and discriminate noncrosslinked and crosslinked keratoconic corneas, and healthy corneas. These findings could help to monitor the success of crosslinking therapy.

Three-year outcomes of small incision lenticule extraction (SMILE) and femtosecond laser-assisted laser in situ keratomileusis (FS-LASIK) for myopia and myopic astigmatism (see page 565)

In this study SMILE and FS-LASIK were equally effective for myopic and astigmatic correction at 3 years after surgery.

Dual-target, real-time PCR for the diagnosis of intraocular *Toxoplasma gondii* infections (see page 569)

We present a single-reaction, internally-controlled, dual-target (B1-Rep529) real-time PCR for intraocular *T. gondii*. This dual-target design maximises inclusivity and sensitivity, without loss of specificity.

Association of human antigen class I genes with cold Medicine-Related Stevens-Johnson syndrome with severe ocular complications in a Korean population (see page 573)

HLA-A*02:06 and HLA-C*03:04 have positive associations and HLA-C*03:03 has negative association with cold medicine related Stevens-Johnson syndrome and toxic epidermal necrolysis with severe ocular complications in the Korean populations.