



# Highlights from this issue

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## Comparing optical coherence tomography findings in different etiologies of infectious necrotizing retinitis (see page 433)

Optical Coherence Tomography (OCT) findings suggestive of either Toxoplasma or Viral aetiology were identified in patients affected by necrotising retinitis. OCT signs may be useful in differentiating these entities.

## Active surveillance of choroidal neovascularisation in children: incidence, aetiology and management findings from a national study in the UK (see page 438)

This prospective national surveillance study identifies the incidence (0.21 per 100 000 in age 16), aetiology, management and visual outcome in children with choroidal neovascularization. Visual prognosis was poor irrespective of CNV location and use of anti-VEGF therapy.

## Optical coherence tomography angiography characterisation of Best disease and associated choroidal neovascularisation (see page 444)

Optical coherence tomography angiography reveals vascular dropout in all layers of the retina due to vitelliform lesions of Best disease. Moreover, the imaging modality is superior to fluorescein angiography in measuring choroidal neovascularization.

## Changes in multiple cytokine concentrations in the aqueous humour of neovascular age-related macular degeneration after 2 months of ranibizumab therapy (see page 448)

Aqueous humor was collected from eyes with exudative age-related macular degeneration at the initial and third ranibizumab injections. CXCL1, IP-10, CXCL12, CXCL13, MCP-1, CCL11, IL-6, and IL-10 decreased after anti-VEGF therapy. In contrast, MMP-9 increased.

## Intravitreal bevacizumab monotherapy in myopic choroidal neovascularisation: 5-year outcomes for the PAN-American Collaborative Retina Study Group (see page 455)

Retrospective analysis of eyes with naïve choroidal neovascularization secondary to high myopia shows intravitreal monotherapy (IVB) is safe and effective for long-term treatment.

## Neovascular age-related macular degeneration management in the third year: final results from the TREX-AMD randomised trial (see page 460)

Third year outcomes of the prospective, randomized TREX-AMD trial comparing treat and extend to monthly ranibizumab dosing for neovascular age related macular degeneration management found few re-treatments necessary among patients attaining a 12-week treatment interval.

## Cost-effectiveness of age-related macular degeneration study supplements in the UK: combined trial and real-world outcomes data (see page 465)

AREDS supplements are a dominant cost-effective intervention for category 4 AREDS patients, as they are both less expensive than standard care and more effective and therefore should be considered for public funding.

## Pachychoroid pigment epitheliopathy in fellow eyes of patients with unilateral central serous chorioretinopathy (see page 473)

In patients with unilateral central serous chorioretinopathy, 61% of fellow eyes had pachychoroid pigment epitheliopathy (PPE), 30.8% had uncomplicated pachychoroid and 8.2% were normal. There is no difference between PPE and UCP regarding demographic characteristics and medical features. All fellow eyes with retinal pigment epithelium alterations had pachychoroid features and were diagnosed as PPE.

## Short-term vision gains at 12 weeks correlate with long-term vision gains at 2 years: results from the BEVORDEX randomised clinical trial of bevacizumab versus dexamethasone implants for diabetic macular oedema (see page 479)

This post-hoc analysis of the BEVORDEX clinical trial of bevacizumab versus dexamethasone implants for diabetic macular oedema identified vision gains at 12 weeks strongly correlated with visual outcomes at 2 years, independent of treatment allocation.

## Evaluation of coronary artery disease as a risk factor for reticular pseudodrusen (see page 483)

The relationship between reticular pseudodrusen and coronary artery disease was

evaluated using ultra-widefield retinal imaging. Validation was performed separately and satisfactorily using other imaging modalities. No association between coronary artery disease and reticular pseudodrusen was found.

## Intravitreal topotecan in the management of refractory and recurrent vitreous seeds in retinoblastoma (see page 490)

Topotecan is a potent chemotherapeutic drug with a safe toxicity profile for use as an intravitreal injection in the treatment of refractory vitreous seeds and achieve a high rate of eye salvage in advanced retinoblastoma.

## Pterygia are indicators of an increased risk of developing cutaneous melanomas (see page 496)

Patients who present with pterygium are at an increased risk of also developing melanoma. Any such patients should be advised to reduce their exposure to ultra violet radiation and to regularly monitor their skin for signs of melanoma development.

## Characteristics of primary extranodal marginal zone B-cell lymphoma in Korea: conjunctiva versus other ocular adnexa (see page 502)

Conjunctival mucosa-associated lymphoid tissue (MALT) lymphoma shows unique features compared with other ocular adnexal MALT lymphomas such as younger age, female predilection, and higher rate of bilaterality, and which may suggest a different pathogenic mechanism.

## Identification of imaging features that determine quality and repeatability of retinal capillary plexus density measurements in OCT angiography (see page 509)

Imaging features of optical coherence tomography-angiography scans that significantly impact the repeatability of retinal capillary plexus density measurements include fine vessel visibility, B-scan quality, and the TopQ image quality parameter.

## Swept-source OCT angiography imaging of the macular capillary network in glaucoma (see page 515)

OCT Angiography technology may offer a non-invasive option of visualising the

macular vasculature in detail, helping with the assessment of glaucoma.

**Optical coherence tomography angiography enhances the detection of optic nerve damage in multiple sclerosis (see page 520)**

The combination of optic nerve head flow index, retinal nerve fibre layer thickness and ganglion cell complex thickness when using OCT angiography, significantly increase the diagnostic accuracy for detecting optic neuritis in multiple sclerosis

**The association between ocular surface measurements with visual field reliability indices and gaze tracking results in preperimetric glaucoma (see page 525)**

Ocular surface condition affects gaze tracking parameters in patients with glaucoma.

**Developing standards for the development of glaucoma virtual clinics using a modified Delphi approach (see page 531)**

Virtual clinics for the management of glaucoma patients are becoming increasingly popular to help deal with increased patient numbers. This paper describes the consensus approach that was used to develop the standards required for

the development and implementation of these clinics within the secondary care setting.

**Reliability of Cyclotorsion measurements using Scanning Laser Ophthalmoscopy imaging in healthy subjects: the CySLO study (see page 535)**

Methodological study confirming high inter- and intra-rater reliability of cyclotorsion measurements using the inbuilt algorithm of the Heidelberg Spectralis Optical Coherence Tomography device.

**The incidence of acute angle closure in Scotland: a prospective surveillance study (see page 539)**

A significant proportion of cases of acute angle closure incident cases are precipitated by the use of dilating eye drops. Assessment of anterior chamber angle may be warranted prior to pupil dilation.

**Anterior segment optical coherence tomography angle and vault analysis after toric and non-toric implantable collamer lens v4c implantation in patients with high myopia (see page 544)**

There are significant changes of the irido-corneal angle and vault under different lighting conditions following toric and non-toric Implantable Collamer Lens V4c implantation during follow-up.

**Comparison of preservation and transportation protocols for preloaded Descemet membrane endothelial keratoplasty (see page 549)**

This study compared two shipping protocols for preloaded DMEK grafts shipped in different conditions. Condition A grafts (endothelium folded in and stored in organ culture medium) retained good cell viability but also offered the advantage of greater flexibility of use due to a longer shelf life.

**Nerve terminals at the human corneo-scleral limbus (see page 556)**

The human corneo-scleral limbus demonstrates specialised nerve terminals termed limbal nerve corpuscles which are intricately connected with the limbal nerve plexus and closely associated with the limbal stem cell niches.

**Mechanical stress potentiates the differentiation of periodontal ligament stem cells into keratocytes (see page 562)**

This study found that corneal-shaped, mechanical strain promotes the differentiation of human periodontal ligament stem cells into corneal keratocytes, and that mechanics has synergistic effects with the inducing medium.