Highlights from this issue

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Biologic therapy for Behçet's uveitis: a systematic review (see page 1045)

Of trials retrieved on six biologics used in Behçet's uveitis, daclizumab, secukinumab and gevokizumab failed. Adalimumab was not evaluated for Behçet's uveitis. Interferon alpha 2a and rituximab showed promise but patient numbers were small.

24 month outcomes of inflammatory choroidal neovascularisation treated with intravitreal anti vascular endothelial growth factors: a comparison between two treatment regimens (see page 1052)

Two regimens of intravitreal anti-vascular endothelial growth factor (VEGF) injections for the treatment of inflammatory choroidal neovascularisation were compared. Treatment regimens commencing with pro re nata anti-VEGF treatment were as effective as more intensive treatment.

Long-term follow-up of quiescent choroidal neovascularisation associated with age related macular degeneration or pachychoroid disease (see page 1057)

Areas of quiescent CNV on OCT-A increase during long-term follow up. When activated, quiescent CNV shows a greater response to anti VEGF treatment if it is associated with pachychoroid disease rather than AMD.

Prevalence and characteristics of macular atrophy in eyes with neovascular age-related macular degeneration. a study from a long term observational dataset: the fight retinal blindness! project. (see page 1064)

The prevalence of macular atrophy in eyes with neovascular age-related macular degeneration increased with treatment duration, number of injections, lower starting visual acuity and a higher frequency of visits where the choroidal neovascularization was inactive

Diet patterns and the incidence of age-related macular degeneration in the Atherosclerosis Risk in Communities Study (ARIC) (see page 1070)

This prospective cohort study showed an increased odds of incident late age-related

macular degeneration with Western dietary patterns. Neither Western nor Prudent patterns were associated with incident early disease.

Prevalence and incidence of age-related macular degeneration in Europe: a systematic review and meta-analysis (see page 1077)

Nearly 30% of elderly Europeans are affected by age related macular degeneration (AMD), both early (26.6%) and late (2.3%) AMD will continue to increase substantially until 2050

Subretinal pigment epithelium fibrotic tissue morphological changes after a single anti-vascular endothelial growth factor injection in age-related macular degeneration (see page 1085)

Three layers with different reflectivity under the RPE were defined in multi-layered fibrovascular PED. All three layers were observed to respond well to a single anti-VEGF injection with a lower response in layer two. This may suggest a more solid structure in layer two, theoretically comprising a fibrotic component

Retinal findings in carriers of monoallelic ABCC6 mutations (see page 1089)

Biallelic ABCC6 mutations cause pseudoxanthoma elasticum. In this study, monoallelic ABCC6 mutations were also associated with mild but characteristic ocular alterations at older age, indicating possible haploinsufficiency of ABCC6

Association of macular disease with long-term use of pentosan polysulfate sodium: findings from a US cohort (see page 1093)

This large USA medical claims database analysis demonstrated an association between long-term use of pentosan polysulfate sodium and a new diagnosis of macular disease at 7 years

Quantitative assessment of the effect of fasting on macular microcirculation: an optical coherence tomography angiography study (see page 1098)

The main findings in this study were the differences in macular perfusion

parameters including changes in SCP, DCP, CC flow, SVD, DVD, SFCT via OCTA when healthy individuals were fasting.

Vessel density and retinal nerve fibre layer thickness following acute primary angle closure (see page 1103)

Following remission of an acute primary angle closure attack, changes in vessel density and retinal nerve fibre layer thickness were observed. Vessel density at two months was the best predictor of subsequent glaucoma progression.

OCT-angiography (OCTA) in optic disc drusen. Comparison with structural and functional parameters (see page 1109)

This study shows a reduction in the vessel density on OCTA in patients with optic disc drusen (ODD) compared with controls. Furthermore, significant correlation was detected with RNFL, GCC and pattern SD.

Exploring the gap between diagnostic research outputs and clinical use of OCT for diagnosing glaucoma (see page 1114)

The diagnostic accuracy of OCT parameters in glaucoma in most published studies, as determined from an ROC curve, may not fit with that of the classification algorithms commonly used in clinical practice

Relationship between ocular risk factors for glaucoma and optic disc rim in normal eyes (see page 1120)

In normal adult eyes, thinner central corneal thickness, lower mean blood pressure and male gender significantly correlated with smaller upper half rim area and greater disc-fovea distance also with greater whole rim area

Retrospective analysis of efficacy and safety data for the XEN45 implant at two years (see page 1125)

Retrospective, non-comparative audit of 151 cases of XEN implantation. At 24-months reduction in both IOP and use of antihypertensive drops was noted

Thinning rates of retinal nerve layer and ganglion cell-inner plexiform layer in various stages of normal tension glaucoma (see page 1131)

The authors observed progressive thinning of the macular retinal nerve fibre layer and the macular ganglion cell layer and inner plexiform layer even in the relatively late stage of normal tension glaucoma.

Early transient intraocular pressure spike after cataract surgery in highly myopic cataract eyes and associated risk factors (see page 1137)

Highly myopic cataract eyes are more susceptible to early transient intraocular pressure spike after cataract surgery, and male sex, longer eyes, shallower anterior chamber and larger beta-zone peripapillary atrophy are risk factors.

Blood derived treatment from two allogeneic sources for severe dry eye associated to keratopathy. a multicenter randomised cross over clinical trial (see page 1142)

Eyedrops from both cord blood and peripheral adult donor blood serum reduced severe keratopathy damage after one-month treatment, with the potential advantage of cord blood serum in symptomatic pain relief

Fabry keratopathy: manifestations and changes over time (see page 1148)

The appearance of Fabry keratopathy changed to a mild to marked degree over 18 months, including streams from the superior limbus. Differences between right and left eyes were negligible to marked. Colour images of these findings are shown.

Extra-ocular muscle positions in anterior plagiocephaly; V-pattern strabismus explained using geometric morphometrics (see page 1156)

This study reports statistically abnormal extra-oculomotor muscles positions within the orbit of patients with anterior plagiocephaly using geometric morphometrics. This aids understanding of strabismus in this condition, especially V-patterns

Congenital nasolacrimal duct obstruction continues trend for spontaneous resolution beyond first year of life (see page 1161)

Our findings show that congenital nasolacrimal duct obstruction can resolve spontaneously in infants up to 24 months of age, and that conservative management until that age is indicated, if the symptoms are tolerable.

Global prevalent of amblyopia and disease burden projections through 2040: a systematic review and meta-analysis (see page 1164)

The estimated global prevalent of amblyopia was 1.44%. In 2019, the total number of people with amblyopia was estimated to be 99.2 million, increasing to 175.2 million by 2030 and 221.9 million by 2040.

Histopathology of retinoblastoma eyes enucleated after intraarterial chemotherapy (see page 1171)

Retrospective histopathological case series on 23 enucleated retinoblastoma eyes treated with intraarterial chemotherapy with melphalan showing severe vascular toxicity in 13/23 eyes and active disease in 15/23 eyes.

Epidemiology of ophthalmic lymphoma in Canada during 1992–2010? (see page 1176)

This work outlines the impact of different subtypes of ocular lymphomas in Canada and identifies a notable area of possible high-incidence for this malignancy in the Strait of Georgia in British Columbia, Canada.