Highlights from this issue

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CYCLODEVIATION OF THE RETINAL VASCULAR ARCADES

The widely used disc-macula relationship for quantification of ocular torsion possesses inherent limitations, which restricts its use in some clinical scenarios. Parsa and Kumar propose an accessory technique of fundus examination for assessing torsion using vascular cues. As retinal blood vessels share common guidance signals with ganglion cell axons, identification of the axis of the retinal vascular arcades can serve as a direct and accessory means to provide additional information regarding ocular cyclorotations.

ADALIMUMAB FOR NON-INFECTIOUS UVEITIS

Dobner *et al* assessed the efficacy of adalimumab in 60 patients with active non-infectious uveitis (from three centres). The indication for treatment was activity of both uveitis and systemic disease (68%) and uveitis activity only (18%). Prior treatment included etanercept (25%) and infliximab (17%). Overall, 82% patients showed improvement in one of the outcome measures (reduction of macular oedema (MO), anterior chamber cells, frequency of flares, prednisone dose or improved visual acuity). Three patients had to discontinue adalimumab due to side effects.

INFERIOR OBLIQUE MYECTOMY VS RECESSIO FOR SUPERIOR OBLIQUE PALSY

Bahl *et al* retrospectively reviewed data of 85 patients with superior oblique palsy who underwent IO weakening procedures (43, inferior oblique myectomy and 42, inferior oblique recession). Patients who underwent myectomy had less post-operative hypertropia in primary gaze. This difference was more pronounced in individuals with small-moderate preoperative hyperdeviations. There was no difference between the two groups with respect to resolution of diplopia or anomalous head tilt.

GRID LASER PHOTOCOAGULATION FOR BRVO INDUCED MO

Leitritz *et al* investigated the long term effectiveness of grid laser photocoagulation (GLP) versus intravitreal bevacizumab (BEV) in MO secondary to branch retinal vein occlusion in a prospective interventional consecutive case series. Patients with persistent MO after 12 months of BEV were offered GLP and vice versa, and were followed-up for another 12 months. Both BEV (23 eyes) and GLP (21 eyes) caused a significant reduction in central retinal thickness (CRT) at 12 months, although this was delayed with GLP. BEV led to a significantly better visual acuity compared with GLP. Switching therapy for non-responders caused additional non significant reduction in CRT.

SD OCT OF THE AQUEOUS OUTFLOW STRUCTURES

Day *et al* measured the dimensions of aqueous outflow structures in 52 participants of the European Prospective Investigation of Cancer-Norfolk eye study.

Imaging was performed using Heidelberg Spectralis optical coherence tomographer with an anterior segment module. Schwalbe's line (SL), scleral spur (SS), Schlemm's canal diameter and the trabecular meshwork cross-sectional area (TM cross sectional area (CSA)) were identified and traced using ImageJ software. The mean SL-SS distance was 800 µm nasally and 808 µm temporally. Nasal SL-SS distance was inversely associated with anterior chamber depth. Nasal TM CSA was significantly associated with age and IOP. Further investigation is required to determine associations between outflow structure sizes in different populations, ocular hypertension, and glaucoma.

PASCAL TARGETED RETINAL VERSUS VARIABLE FLUENCE PANRETINAL LASER IN DIABETIC RETINOPATHY

Muqit *et al* investigated the short-term effects of high density 20-ms laser on macular thickness using Pascal targeted retinal photocoagulation (TRP) and reduced fluence/minimally-traumatic panretinal photocoagulation (MT-PRP) compared to

standard-intensity PRP (SI-PRP) in proliferative diabetic retinopathy (PDR). In a prospective randomised clinical trial (2500 photocoagulation burns), 10 eyes/arm were randomised to TRP:MT-PRP:SI-PRP. At 12 weeks, there was similar reduction in CRT, PDR regression, changes in visual acuity, and NFL thickness in all groups. There were no laser-related ocular complications.

VISUAL ACUITY AFTER GAMMA-KNIFE RADIOSURGERY OF CHOROIDAL MELANOMA

Wackernagel *et al* report on conservation of visual acuity after Gamma-Knife radiosurgery in 189 patients with choroidal melanoma. Local tumour control rate was 94% (median follow-up, 39.5 months) with the majority of patients (85%) developing deterioration of vision. The 5 year actuarial probability of visual acuity better than 20/40, 20/200 and CF was 13%, 14% and 36%, respectively.

The most important risk factors for visual loss were tumour height, longest basal diameter, distance to the optic disk and/or foveola, and pre treatment retinal detachment. Treatment dose, and patient characteristics (age, sex, concurrent systemic diseases) were less important.

INDOCYANINE GREEN ENHANCED TTT FOR RETINOBLASTOMA

Francis *et al* report their experience in the use of indocyanine green (ICG) enhanced transpupillary thermotherapy (TTT) in combination with ophthalmic artery chemosurgery for retinoblastoma unresponsive to standard TTT. In a retrospective study of 16 eyes (13 patients) with a mean follow-up of 12.1 months (range 3–35 months), tumour regression occurred in all eyes: 13 eyes with well-differentiated characteristics, 2 with implanting vitreous seeds and 1 eye refractory to traditional TTT. ERG function was retained in all eyes. The authors conclude that ICG-enhanced TTT with ophthalmic artery chemosurgery can effectively treat retinoblastoma refractory to conventional focal treatments without deleterious ocular side effects.