Highlights from this issue

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Arun Singh, Harminder Dua, *Editor-in-Chief***SWEPT-SOURCE OCT MEASUREMENT OF NORMAL CHOROIDAL THICKNESS**

Copete *et al* compared spectral-domain optic coherence tomography (SD-OCT) and swept-source OCT (SS-OCT) in the study of choroidal thickness (CT) of 82 healthy eyes of 46 patients. Topcon 3D-2000 SD-OCT and 1050 nm SS-OCT prototype devices were used to determine 13 CT measurements including one subfoveal thickness (SFCT). Mean CT was $243.8 \pm 78.8 \mu\text{m}$ with SD-OCT vs $242.281.8 \mu\text{m}$ with SS-OCT. The best quality choroidal images were obtained with SS-OCT allowing accurate identification of the choroido-scleral border in 100% of normal eyes.

THE EFFECT OF TRENDELENBURG POSITIONING ON INTRAOCULAR PRESSURE

Hoshikawa *et al* evaluated intraocular pressure (IOP) changes in patients undergoing robotic-assisted radical prostatectomy in 31 eyes. Perioperative IOP measurements were performed prior to induction of anaesthesia; immediately post-induction while supine; every hour from 0 to 5 h while anaesthetised in a steep Trendelenburg position; prior to awakening while supine; and 30 min after awakening while supine. While IOP increased in a time-dependent fashion in steep Trendelenburg position, post-operative visual function changes were not observed.

OCRIPLASMIN TREATMENT FOR SYMPTOMATIC VITREOMACULAR TRACTION SYNDROME

Singh *et al* evaluated the anatomical and visual outcomes in 17 patients treated with a single intravitreal injection of 0.125 mg ocriplasmin for the treatment of symptomatic vitreomacular adhesion (svMA), including vitreomacular traction syndrome and macular holes. In this retrospective, interventional case series, resolution of vitreomacular adhesion (VMA) was verified by SDOCT in eight patients by day 28 (47.1%). Patients meeting three of four

positive predictors criteria at baseline showed a response rate of 50.0%; those meeting all four criteria showed a response rate of 75.0%. Transient outer segment ellipsoid zone loss (seven patients) and subretinal fluid (five patients) could be visualized by SDOCT.

CATARACT SURGERY OUTCOME IN EYES WITH KERATOCONUS

Watson *et al* retrospectively reviewed the refractive outcome of cataract surgery in 64 consecutive patients (92 eyes) with keratoconus. 35 eyes had mild keratoconus, 40 had moderate keratoconus, and 17 had severe keratoconus. Actual K values were used in all eyes with mild or moderate keratoconus with a target refraction of approximately -1.0 D in mild keratoconus and -1.5 D in moderate keratoconus. The actual K values were used in eight of the 17 eyes with severe keratoconus with a mean target refraction of -5.4 D , which resulted in a mean biometry prediction error (BPE) of $+6.8 \text{ D}$. In the remaining nine eyes, a standard K value of 43.25 D was used with a mean target refraction of -1.8 D , which resulted in a mean BPE of $+0.6 \text{ D}$. Using the actual K values with a target of low myopia was a suitable option for spherical IOL selection for eyes with mild or moderate keratoconus. In severe keratoconus, use of standard K value should be considered.

REGRESSION OF CORNEAL MATURE LYMPHATIC VESSELS BY PHOTODYNAMIC THERAPY

Corneal (lymph) angiogenesis is a predominant risk-factor for immune rejection after transplantation. Bucher *et al* analysed the possibility to regress corneal lymphatic vessels by photodynamic therapy (PDT), after intrastromal verteporfin injection in a murine model of suture-induced inflammatory neovascularisation. The treatment group received an intrastromal injection of verteporfin (controls: phosphate buffered saline) followed by PDT. Lymphatic vessels were reduced by 62%, 51% and 48% at one, 5 and 10

days after PDT, respectively. Whereas blood vessels showed no significant reduction after PDT, lymphatic vessels were significantly reduced with PDT.

SEX HORMONE LEVELS AND EVAPORATIVE DYSFUNCTIONAL TEAR SYNDROME

Gagliano *et al* evaluated the role of 17- β -oestradiol, oestrone and total testosterone (TT) deficiency in the pathogenesis of severe evaporative dry eye syndrome (DES) by investigating the relationship between tear osmolarity, tear film break-up time (TF-BUT), Schirmer test and serum sex hormones in 44 postmenopausal women (22 women with severe evaporative DES (Group A) and 22 without DES (Group B). Serum levels of 17- β -oestradiol, oestrone and TT were significantly lower in Group A compared with Group B. Moreover, tear osmolarity was negatively correlated with sex hormone levels.

TOTAL MACULAR THICKNESS AND GANGLION CELL-INNER PLEXIFORM LAYER THICKNESS ACCORDING TO OPTIC DISC AREA

Yoon *et al* examined the diagnostic value of the perimacular ganglion cell-inner plexiform layer (GCIPL) thickness in the detection of glaucoma according to the optic disc area in 87 normal subjects and 96 glaucoma patients. The participants underwent reliable standard automated perimetry tests and Cirrus optical coherence tomography. Subsequently, optic disc areas of ≤ 1.9 , ≤ 2.4 and $> 2.4 \text{ mm}^2$ were chosen arbitrarily for comparison. The mean GCIPL thickness had higher diagnostic ability than the central retinal subfield thickness, comparable with that of the retinal cube volume and mean retinal cube thickness. Overall, the macular GCIPL thickness, total macular cube thickness, circumpapillary RNFL thickness and disc rim area showed similar performance in diagnosing glaucoma, irrespective of the optic disc size.