Highlights from this issue

Corneal changes after phacoemulsification: BSS plus versus lactated Ringer

Lucena et al compared preservation of corneal integrity in 110 patients undergoing phacoemulsification randomised to either BSS Plus (55) or Ringer (55) as the intraocular irrigating solution. Evaluations included specular microscopy for endothelial cell density (ECD), endothelial cell size variability, and central corneal thickness measurement. Groups were well balanced regarding baseline features. Overall, Ringer solution was similar to BSS plus for corneal preservation in atraumatic cataract surgery. However, there was a trend towards lower postoperative ECD with Ringer irrigation solution for surgeries with longer phacoemulsification time. See page 485.

Subthreshold laser treatment for retinal macroaneurysm

Farodi et al assessed the effects of subthreshold laser treatment (STLT) in nine patients with retinal arterial macroaneurysms associated with foveal exudations and reduced visual acuity. The patients were prospectively observed for 4 months, and in absence of spontaneous improvement, they underwent STLT using an infrared diode laser. At the 4-month examination, the mean BCVA improved, whereas the mean CPT, TMV, and CST decreased. No side-effects were noted. The authors suggest a randomised clinical trial to ascertain real efficacy of STLT. See page 534.

Corneal collagen crosslinking in post-LASIK keratectasia

Salgado et al evaluated corneal collagen crosslinking with riboflavin and UV-A as a treatment option for post laser in situ keratomileusis keratectasia in 22 eyes (15 patients). Over a period of 12 months they observed stability of the UCVA and BCVA as well as the corneal topography in their cohort, thereby avoiding or delaying disease progression and keratoplasty. See page 493.

Treatment of CSR: focal laser photocoagulation or photodynamic therapy

Lim et al compared clinical outcomes in 26 patients with CSR undergoing either focal laser photocoagulation (12 eyes) or PDT (14 eyes). Eyes with extrafoveal focal leakage on fluorescein angiography were treated by focal photocoagulation. Eyes exhibiting no definite focal leakage or subfoveal or juxtafoveal leakage were treated by PDT (standard fluence, half dose verteporfin). One month after PDT, 11 eyes showed complete absorption of subretinal fluid, whereas five eyes in the focal laser group showed residual subretinal fluid. Three months after treatment, visual acuity and parameters of multifocal electoretinography improved without significant differences between the two groups. See page 514.

Cataract surgery malpractice claims in England

Ali and Little analysed the causes of malpractice claims related specifically to cataract surgery in the National Health Service (NHS) in England from 1995 to 2008 based upon data obtained from NHS Litigation Authority. Over the 14-year period, there were 524 cataract surgery claims with total damages of £1.97 million (mean, £19 900). Negligent surgery (including posterior capsule tear and dropped nucleus) was the most frequent cause for claims, while reduced vision accounted for the highest total damages. Claims relating to biometry errors/wrong IOL power were the second most frequent cause of claims and resulted in payment of damages in 62% of closed cases. The claims with the highest paid/closed ratio were inadequate anaesthesia (75%) and complications of anaesthetic injections including globe perforation (67%). The factors that motivate patients to sue are centred around behaviour rather than clinical competence. There are predisposing factors to litigation (rudeness, delays, inattentiveness, miscommunication, apathy) as well as precipitating factors (adverse outcomes, injuries, failure to provide adequate care, mistakes, systems errors). See page 490.

Safety profile of primary IOL implantation in young children

Gupta et al studied the safety profile of primary IOL implantation in children (<2 years) in a retrospective consecutive series of 80 children (120 eyes) with congenital/developmental cataract. Thirty one eyes were operated on before the age of 6 months, and 89 were operated after 6 months of age. Thirty eyes were implanted with rigid PMMA IOL and the remaining 90 received acrylic hydrophobic foldable IOL. Eight eyes developed opacification of the visual axis and decentration of IOL was noticed in two eyes. There was no difference in complications between younger and older children. The authors conclude that IOL implantation can be considered for visual rehabilitation in children. See page 477.

Ocular findings in acute puumala hantavirus infection

Hautala et al report the ocular manifestations of Puumala hantavirus evoked haemorrhagic fever with renal syndrome nephropathia epidemica (NE) in 46 patients with serologically proven NE. In all, 70% of the patients reported ocular symptoms. Eighty eight percent of the patients experienced bilateral decreased IOP with reduced visual acuity and conjunctival chemosis (87%). Thickening of the lens (82%) was associated with myopic shift and shallowing of the anterior chamber. Cases of uveitis were not observed in their cohort. See page 559.

Morphometric parameters by histology and SD OCT

Fatehee et al correlated SD-OCT morphometric parameters of 10 porcine optic nerve heads (ONH) with matched histological sections. They observed a high correlation between SD-OCT and histological measurements for anterior collagenous structures of the ONH (Bruch membrane opening and cross-sectional diameter). However, a lower correlation was observed for parameters involving the prelaminar region (cup cross-sectional area, neuroretinal rim cross-sectional area) and lamina cribrosa thickness. See page 585.