BJO at a glance

Creig Hoyt, Editor

SIMPLE NERVOUS SYSTEM PATHOLOGY IN GLAUCOMA

The pathology of glaucoma has been extensively studied at the level of the retina and optic nerve head. Gupta and co-workers describe a case of a 79 year old man with glaucoma who underwent necropsy. The findings included degeneration of the intracranial optic nerves, lateral geniculate nucleus, and visual cortex. Rehabilitation of glaucoma patients may require strategies beyond protection of the optic nerve.

See p 674

MICROBIAL CORNEAL ULCERS AND THE RISK OF PERFORATION

Microbial keratitis is an important preventable cause of monocular blindness. Titiyal and co-workers report the result of a study of corneal ulcers in northern India. Unlike previous reports they did not find a significant association of topical steroids with the risk of perforation. Traditional eye medications have been associated with the progression of corneal ulcers and the central location of a corneal ulcer appears to be a risk factor for perforation. In contrast, hypopyon formation and limbal involvement were not associated with perforation risk.

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CATARACT REMOVAL AND THE PROGRESSION OF DIABETIC MACULOPATHY

It is well recognised that cataract extraction in the diabetic patient may exacerbate or precipitate macular oedema and the progression of pre-existing retinopathy. Patel and co-workers report the findings of a clinical study of diabetics undergoing phacemulsification. In this study, increased

concentrations of angiogenic growth factors after cataract surgery were detected. This may account for the potential worsening of diabetic maculopathy following cataract surgery in these patients.

See p 697

HOW LONG DOES INTRAVITREAL TRIAMCINOLONE REMAIN IN THE EYE?

The use of intravitreal triamcinolone in eyes that have undergone vitrectomy is increasingly being used to treat diabetic maculopathy and other disorders. Kosobucki and co-workers used a photographic technique to estimate the duration of high dose intravitreal triamcinolone in a series of eyes that have undergone vitrectomy. In this study there was evidence that intravitreal triamcinolone could be detected for up to 113 days. This appears to be shorter than has been reported in non-vitrectomised eyes.

See p 705

PENETRATING KERATOPLASTY OUTCOMES

Corneal transplantation is one of the most successful allograft transplantations performed. Beckingsale *et al* report a retrospective chart analysis of penetrating keratoplasty at a single corneal unit. In this study keratoplasty was a safe and effective treatment for selective corneal disorders. It appeared to be effective even in the presence of viral keratitis provided long term viral treatment was utilised. The authors suggest that better outcomes may occur at specialised centres.

See p 728

OUTCOMES FOR EYES TREATED FOR RETINOPATHY OF PREMATURITY

Retinopathy of prematurity is a significant cause of visual impairment in developed and emerging countries. McLoone and co-workers report the results of 25 patients undergoing laser therapy for retinopathy of prematurity. In this study laser treated eyes with a favourable structural outcome also had a good visual outcome. An unfavourable visual acuity outcome occurred in 13% of patients and was associated with an unfavourable structural outcome. This study re-emphasises that laser therapy for retinopathy of prematurity can produce good structural outcomes that are usually associated with good visual outcomes.

See p 754

THE MECHANISM OF OPTIC NERVE INJURY IN BLIND TRAUMA

Anterior traumatic optic neuropathy and optic nerve avulsion continue to be a significant public health problem especially in boys and young men. Cirovic and co-workers report the results of computer modelling to understand the mechanism of optic nerve injury in blind trauma. In this study the most likely mechanism of injury would appear to be rapid rotation and lateral translation of the globe as well as a dramatic rise in intraocular pressure. The authors suggest that computer modelling may provide important insights into the pathophysiology of optic nerve trauma that cannot be replicated in either human or animal experiments.

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