

# Highlights from this issue

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## Imiquimod 5% cream versus radiotherapy for eyelid BCC

Garcia-Martin *et al* compared the efficacy, cosmesis and tolerance of two non-surgical treatments – imiquimod (IMQ) 5% cream and radiotherapy (RT) – to combat periorbital nodular basal cell carcinoma (BCC) in 27 patients with clinical and histopathological diagnosis randomised to receive IMQ 5% cream once daily, 5 days/week for 6 weeks (15) or RT (fractionated, total dose 40–70 Gy) (12). All tumours showed histopathological remission within 3 months and sustained clinical remission was documented in each patient at 24 months. Overall, cosmesis and functional results were better with IMQ, while RT was better tolerated. **See page 1393.**

## Keratopigmentation for iris defects

Alio *et al* investigated the functional and cosmetic outcomes of keratopigmentation (KTP) in 11 eyes with visual dysfunction due to iris defects. Micronised mineral pigments were applied intrastromally assisted with femtosecond laser. Eight patients were asymptomatic after the surgery. In two patients, minimal non-disabling symptoms remained after surgery. One patient with traumatic aniridia underwent a second operation. The cosmetic outcomes were excellent in eight patients and good in three. **See page 1397.**

## Sequential testing for the detection of narrow angles

Chang *et al* investigated sequential testing with a scanning peripheral anterior chamber depth analyser (SPAC), IOLMaster and anterior segment optical coherence tomography (AS-OCT) for non-invasive screening for narrow angles. When used individually, neither SPAC,

AS-OCT nor IOLMaster were able to achieve high sensitivity and specificity compared with gonioscopy. After sequential testing (SPAC followed by AS-OCT), the sensitivity rose to 70.3% (significantly higher than single testing), while specificity remained at 94.3%. **See page 1410.**

## Prevalence of AMD (2010–2020) in the UK

Minassian *et al* projected the number of patients with age-related macular degeneration (AMD) and the numbers with attributable sight loss in 2010–2020, using a ‘system dynamics’ approach, taking into account the expected beneficial effect of the new anti-VEGF therapies. The model computed the pool of affected cases over the simulation period, taking into account the expected demographic changes. In 2010, 608 213 people were estimated to have AMD. This number is expected to increase to 755 867 by the end of the decade. The model also predicts that the beneficial effects of the treatment would be outweighed by the demographic ageing effect, reaffirming the need to develop more effective therapies for AMD. **See page 1433.**

## Expert graders versus computer-assisted image analysis in ROP

Shah *et al* determined correlation between expert graders (four retinopathy of prematurity (ROP) experts) and computer-assisted image analysis (CAIAR) of the width and tortuosity of retinal vessels in narrow-field images of eyes with ROP. Expert measurements correlated well with those from CAIAR for venule width and arteriole tortuosity. Measurements between the four graders agreed moderately well. Tortuosity measurements by CAIAR and graders were statistically different between treated and untreated eyes. **See page 1442.**

## Ultrasound biomicroscopy of the lacrimal drainage system

Al-Faky evaluated the lacrimal drainage system in normal eyes (24) and in eyes with different pathological conditions by ultrasound biomicroscopy (UBM). The lacrimal sac longitudinal diameter was always greater than the screen limits ( $\geq 15$  mm) and the width varied from 1.9 mm to 3.4 mm (mean 2.6 mm). Horizontal scanning of the lacrimal sac revealed a mean cross-sectional area of 5.7 mm<sup>2</sup>. The cross-section diameter of the canaliculi varied from 0.5 mm to 0.9 mm. UBM is a valuable tool in the assessment of both normal and diseased lacrimal drainage systems. **See page 1446.**

## Effect of glaucoma medications and preservatives on cultured human TM and ciliary epithelial cell lines

Ammar and Kahook investigated the potential cytotoxicity of various topical ophthalmic glaucoma formulations containing different preservatives (0.004% travoprost preserved with either 0.015% benzalkonium chloride (BAK), sofZia or 0.001% Polyquad (PQ); and 0.005% latanoprost preserved with 0.020% BAK) on cultured human trabecular meshwork (TM) and non-pigmented ciliary epithelial (NPCE) cell lines. BAK solutions (diluted 1:10) demonstrated a dose-dependent reduction in cell viability in both cell types (TM and NPCE). In TM cells, travoprost+BAK had statistically fewer live cells than travoprost+sofZia or travoprost+PQ. The results demonstrate that replacement of BAK in topical ophthalmic drugs results in greater viability of cultured TM cells. Cultured NPCE appear more resilient to BAK. **See page 1466.**