

Highlights from this issue

doi:10.1136/bjophthalmol-2012-302142

Harminder Singh Dua and Arun D Singh, *Editors-in-Chief*

Uncorrected refractive errors in sub-Saharan Africa

Sherwin *et al* extracted data from population-based prevalence surveys (11) performed in 10 countries, encompassing 39 458 adults. The prevalence of blindness (presenting visual acuity (PVA) <3/60 in better eye) ranged from 1.1% in an urban district of Cameroon to 7.9% in a rural district in Ethiopia. The proportion of moderate visual impairment (PVA ≤6/60 and >6/18) ranged from 12.3% to 57.1%. The highest proportion of visual impairment due to uncorrected aphakia was found in Gambia (15.2%) and Nigeria (15.8%), respectively. Uncorrected refractive error is not a major cause of blindness in sub-Saharan Africa (*see page 927*).

RNFL thickness in preterm and at term born children

Åkerblom *et al* measured the retinal nerve fibre layer (RNFL) thickness in 62 children born at gestational age of ≤32 weeks and a control group of 54 children born at term with normal birth weight (BW). RNFL thickness was measured with Stratus OCT 3 at mean age of 8.6 years in the preterm children and 10.1 years in the control group. There was a significant difference in average RNFL thickness between the preterm and at term born children. Within the preterm group, the average RNFL thickness increased with larger BW. These observations suggest negative effect of low BW on neural development (*see page 956*).

Simple limbal epithelial transplantation

Sangwan *et al* describe a novel single-stage surgical technique of limbal epithelial transplantation for patients with unilateral total limbal stem cell deficiency. A 2×2 mm strip of donor limbal tissue was obtained from the healthy eye and divided into eight to ten small pieces that were distributed evenly over an amniotic membrane placed on the cornea. After surgery, a completely epithelialised, avascular and stable corneal surface was seen in all six recipient eyes by 6 weeks, and this was maintained at a mean follow-up of 9 months. This technique requires less

donor tissue than conventional autografting and does not need a specialist laboratory for cell expansion (*see page 931*).

Patient preferences in treatment for neovascular AMD

Finger *et al* assessed the effect of ranibizumab treatment for neovascular (AMD) on patient preferences and vision-related quality of life using a Rasch-adjusted NEI-VFQ-25 in a routine clinical setting. Fifty-five treatment naive patients were examined before and after the initial upload of three monthly injections of 0.5 mg ranibizumab. Time trade-off, standard gamble, a visual analogue scale, and the European Quality of Life Questionnaire were used to calculate utilities. Ranibizumab treatment leads to improvements in visual functioning and patient preferences, as elicited by Time trade-off. Gain in utility from better and worse eye treatment may be similar (*see page 997*).

Day-to-day variability in IOP in glaucoma and ocular hypertension

Rotchford *et al* investigated the day-to-day repeatability of IOP measurements in a cohort of untreated patients presenting with primary open-angle glaucoma or ocular hypertension. IOP was measured by masked Goldmann tonometry at 08:00, 11:00 and 16:00 at each of the three weekly visits. After starting travoprost (0.004%) to both eyes, the measurements were repeated for a further three weekly visits. Before treatment and after starting medication, the IOP lay within a range of ±20% of the mean IOP (95% confidence). The authors conclude that day-to-day variability significantly undermines the precision of IOP measurement and estimation of effectiveness of medication (*see page 967*).

Uncorrected refractive error in older British adults: EPIC-Norfolk Eye Study

Sherwin *et al* investigated the prevalence and demographic associations of uncor-

rected refractive error (URE) in 4428 participants (aged 48–89 years) of the Cancer-Norfolk study. The prevalence of URE was 1.9%. Increasing age and having hypermetropic or myopic refractive error were independently associated with URE. Overall the prevalence of URE was low in this population reflecting a low prevalence of PVA<0.3 (*see page 991*).

Remote computerised visual acuity measurement

Srinivasan *et al* determined the efficacy of a remotely operated computer-based logarithmic visual acuity chart. Visual acuity was tested in all subjects in the physical presence and absence (remote) of an optometrist. Remote access was obtained through the internet and instructions were provided by telephone. The time taken between the two methods of assessment was not statistically different. Remotely controlled visual acuity measurement was as reliable as that measured in the physical presence of an optometrist (*see page 987*).

Actions of bevacizumab and ranibizumab on retinal vascular endothelial cells

Deissler *et al* investigated the effects of bevacizumab and ranibizumab on immortalised bovine retinal endothelial cells. Bevacizumab strongly inhibited VEGF-stimulated basal migration, but was less efficient than ranibizumab in inhibiting VEGF-induced proliferation or restoring the VEGF-induced decrease of transendothelial resistance. This ability was completely lost after storage of bevacizumab for 4 weeks at 48°C. Ranibizumab and bevacizumab were detectable in whole cell extracts after treatment; ranibizumab in the membrane/organelle fraction, whereas bevacizumab was associated with the cytoskeleton. Potential retinal adverse effects due to accumulation after repetitive intravitreal injections remain to be investigated (*see page 1023*).