Conflict of interest

The authors declare no conflict of interest.

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Sir, Comment on ‘The effect of erythropoietin on the severity of retinopathy of prematurity’

We read with interest the article ‘The effect of erythropoietin on the severity of retinopathy of prematurity’.¹ Even if the results are interesting, we have a few concerns and comments. The use of sedatives to screen all the babies for ROP is surprising and can be risky for these vulnerable infants.² The babies with stage 3 ROP were treated when they reached threshold stage despite ETROP recommendation³ to treat babies, at high risk, prethreshold, and beyond. This questions the efficiency of the treatment strategy followed in the study. The images of the infants needing treatment were reviewed by another examiner before treatment probably implies that the findings of the screening physicians required reconfirmation. In such a case, babies labelled with severe ROP after erythropoietin injection should also have been reconfirmed by a retina specialist. Although the indication to give erythropoietin was under the discretion of the paediatrician, some details like baseline haemoglobin concentration and platelet count at the time of erythropoietin injection would have been more informative as they are known to affect the severity of ROP independent of erythropoietin. Reports say that effect of erythropoietin on ROP depends whether it was given at early or late post-natal life.⁴ So a similar division in the study could have given extra information.

The cumulative dose of erythropoietin received by neonate with mild ROP (3200 units) was more than those with severe disease (2750 units). To establish erythropoietin as a contributory cause, it is important for the cause to not only have statistical significance but also alter the effect on altering the cause with a proven dose–response relationship, which the study fails to show.

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Sir, Comment on ‘Photocoagulation guided by wide-field fundus autofluorescence in eyes with asteroid hyalosis’: single and double pass of light in the ocular media

I enjoyed reading the case report from Ogino *et al.*¹ I agree that examining and treating patients with concurrent asteroid hyalosis and proliferative retinopathy is a significant challenge. I also agree that autofluorescence images and fluorescein angiography are much less affected by the presence of the vitreous opacities than funduscopy and colour images.

The given reason that the wavelengths of light used to obtain these images are less affected by the asteroid bodies is however incorrect.

During biomicroscopy or colour photography light passes through the ocular media, reflects from the RPE/choroid, and exits through the ocular media into the imaging system. This is known as a double pass and is a multiplication not addition. The image quality is reduced by ‘media-squared’ not ‘media-doubled’.

In FFA and AF the light exiting the eye has its origin entirely in the posterior layers of the globe. The incident light is absorbed and molecule-bound electrons are raised into higher energy levels. The electrons make a transition to an intermediate energy level and new light

is emitted with lower energy and longer wavelength. The new wavelength contains no information from the incident beam.

This light passes through the ocular media once and is therefore deemed 'single pass'. The degradation of image quality is much less than in double pass.

In the case of asteroid hyalosis we see reflection of light and double pass with biomicroscope lenses or colour photography. With FFA and AF the asteroid hyalosis is much less apparent because the light originates in the retina and only passes out; any light reflected from the asteroid scatters back towards the retina and will not degrade our image.

It is good to understand the fundamental difference between single and double pass when examining the posterior segment; the quality of colour fundus images in the presence of media opacity can be poor but FFA images of the same eye much better.

The same knowledge can be useful when considering cataract surgery in a patient with concurrent macula disease. Our fundal view is double pass, whereas the patient sees a single pass. When I can see the retina clearly through a double pass of the cataract I tend to defer surgery.

Conflict of interest

The author declares no conflict of interest.

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Sir, The incidence of serious complications associated with intravitreal therapy in a quaternary ARMD service (2008–2014)

There is current paucity of good current real world data on the incidence of serious complications associated with intravitreal therapy in age-related macular degeneration (ARMD). We aim to address this fact.

Report

ARMD is the leading cause of blindness in the developed world.¹ The current treatment in this period involved intravitreal therapy in the form of anti-VEGF (vascular endothelial growth factor) injections. Over this time

period ranibizumab was usually injected on a monthly basis in accordance with National Institute of Clinical Excellence (NICE) guidance.²

Owing to the large volume of injections performed, the monitoring of safety outcomes can be difficult. We carried out retrospective analysis on all patients attending the intravitreal service over a 5-year period. All patients with any serious complication were identified by highlighting those who have been seen in both the injection suite and in the vitreoretinal service.

In all, 4742 patients received a total of 42 513 injections in the 5-year period from August 2008 to February 2014 and were all included in this audit. Of those, 307 patients had a joint vitreoretinal appointment and an appointment in the intravitreal suite. The incidence of complication per patient for endophthalmitis was 0.04%, retinal tear 0.014%, retinal detachment 0.002%, vitreous haemorrhage (defined as significant enough to require ultrasonography) 0.009%, and lens touch 0.005%. Subgroup assessment did not reveal any correlation between the experience of the injector and complication. Optical coherence tomography (OCT) was reviewed for all patients who suffered retinal tears, detachment and vitreous haemorrhages. There was no abnormal vitreous adhesion or traction seen in this small subgroup of patients.

Intravitreal therapy is a perceived safe outpatient procedure, with nearly 400 000/year performed in the UK. The incidence of endophthalmitis, retinal tear, detachment, vitreous haemorrhage and lens touch is small. Figures from our service provide the physician with more data to enable a more detailed and frank consent to take place. The results also remain the benchmark in our service in order that we do not sacrifice safety for volume.

Conflict of interest

The authors declare no conflict of interest.

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