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.

Reference

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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 ranbizumab 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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