Sir,

Correlation of visual recovery with macular height in macular-off retinal detachment

I read with interest the article by Mowatt *et al*[1] describing the correlation of visual recovery with macular height in macular-off retinal detachments. The authors concluded that the shallower the macular detachment, the greater the likelihood of a good visual outcome, and that assessment of pre-operative macular height with B-scan ultrasound can be useful as a predictive factor of final visual outcome for macular-off retinal detachments. Although the study is simple and concise, I have the following comments and questions.

For an objective measurement of the height of macular detachment, I think that the authors should have presented a more detailed method for their ultrasound study. First, the authors did not describe the method used for measuring the height of the movable detached retina after position change (sitting or supine position). Second, the authors should present a reliable and definite check point instead of a vague point, which was described by the authors as 'a single point on the retinal pigment epithelium, 4 mm temporal from the center of the optic nerve'. In addition, standardization of positions of the ultrasound probe and the examined eyeball is needed for a precise study.

As cited by the authors, Ross *et al*[2] showed that the height of macular detachment is the most important preoperative variable influencing recovery of good central vision in macular-off detachments of $\leqslant$7 days' duration. However, Ross *et al* used three-dimensional B-scan ultrasonography to define the full extent of the detachment and to accurately locate the centre of the optic nerve and macular region. I am wondering how to make an accurate measurement of the height of the macular detachment using only two-dimensional B-scan ultrasonography.

I agree that assessment of pre-operative macular height using B-scan ultrasonography is a predictive factor of the final visual outcome for macular-off retinal detachments, and B-scan ultrasonography, the standard equipment used in most ophthalmic departments, could be used for assessment of the height of the macular detachment. However, the authors need to present a simpler and more reliable method for clinical application of their suggestion.

Conflict of interest

The author declares no conflict of interest.

References

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Sir,

Reply to Young-Hoon Park

We thank Young-Hoon Park[1] for his interest in our article entitled 'Correlation of visual recovery with macular height in macular-off retinal detachments'. In reply to his first point, the retina was measured after it ceased to move after postural change in both supine and sitting position respectively. We agree that standardization of positions of ultrasound probes should be done for studies and this was the case in our study protocol.

Our ultrasonic measurements were done using the CineScan 10 MHz probe. For accurate localization the probe was placed directly on the cornea after topical anaesthesia. The axial scan was done with the white line on the probe, placed in the direction of the macula so that both macula and optic nerve were visible in the axial scan (Figure 1). Measurements were taken when the correct disc configuration was obtained, ie, when the disc did not appear oblique or tilted on ultrasound. This method gives a fairly accurate reference point (disc and macula) within the scope of two-dimensional B-scan ultrasound.

We further standardized our measurements using markers to measure at a distance 4 mm from the centre of the disc temporally. From that point a digital caliper was used to measure the perpendicular distance between the retinal pigment epithelium and the outer neurosensory detached retina.

Although the mean macular height was higher in the sitting group ($2.42 + 1.2$ mm) than in the supine group ($2.39 + 1.0$ mm), in our study there was no significant difference according to posture (t test, $P = 0.9$).[2] There are limitations to the accuracy of measurements with two-dimensional B-scan ultrasonography; however, standardization of measurements for studies improves the validity of the results.

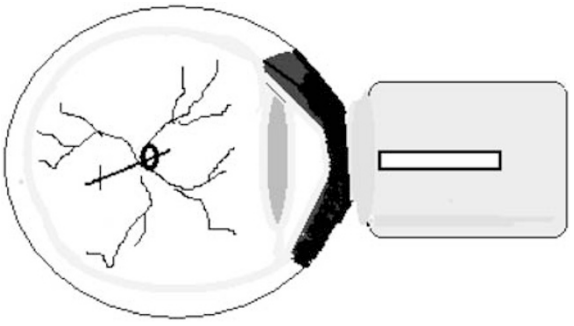

Figure 1 Diagrammatic representation of the position of the probe on the eye in order to visualize the macular area.

Conflict of interest
The authors declare no conflict of interest.

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Sir,
Intravitreal bevacizumab *vs* triamcinolone acetonide for macular oedema due to central retinal vein occlusion

We read with great interest the article by Wu *et al*.[1] We have some comments to share with the authors and to broaden the discussion.

First, the proportion of ischaemic central retinal vein occlusion (CRVO) was different in the two treatment groups. The ITA group had 13.6% (3/22) of ischemic CRVO patients, while the IBe group had 38.5% (5/13) of those patients. Although not statistically significant, the chi-square test showed a trend of difference in the constitution of CRVO patients ($P = 0.09$). A previous study had shown that intravitreal injection of triamcinolone acetonide (TA) might be more favourable to non-ischaemic CRVO.[2] The results of the present study also imply that non-ischaemic CRVO may have a better outcome than intravitreal injection of bevacizumab. The difference in constitution of ischaemic/non-ischaemic CRVO patients in the two treatment groups might lead to the conclusion that IVTA was as effective as intravitreal injection of bevacizumab in treating macular oedema because of CRVO being less convincing.

Second, we are curious about the choice of dosage of the TA. The SCORE study has shown the same efficacy of 1 and 4 mg TA in improving visual acuity in perfused CRVO patients, but lesser intraocular pressure (IOP) elevation and cataract with 1 mg TA.[3] Although during the time of the authors' study, the results of the SCORE study were not available, the authors may need to specify their reasons for choosing 4 mg TA as the dosage.

Third, the authors used a full auto tonometer to measure the IOP instead of the Goldmann applanation tonometer, which is the golden standard in IOP measurement. We are wondering about the reasons behind the choice of the tonometer in this study.

Fourth, in the patient who had mature cataract during follow-up, the authors did not describe the appearance of the cataract, nor did they state how fast the cataract developed. This information was important for us to determine whether the cataract was caused by the needle during injection.

Conflict of interest
The author declares no conflict of interest.

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Sir,
Reply to Hu

We thank Hu[1] for the comments on our article. Below we propose our explanations to the queries raised.

1. The proportion of patients with ischaemic central retinal vein occlusion (CRVO) was different in the two treatment groups.

Answer: Indeed, the patient collection is a limitation of our study. Due to the retrospective design, we could not make a perfect match between the intravitreal triamcinolone acetonide (ITA) group and the IBe group, but we tried our best. There were no significant differences between the two treatment groups with regard to patient age, sex, follow-up period, baseline visual acuity, and retinal