

Sir,
Macular hole surgery without prone positioning

We read with interest the article titled 'Macular hole surgery without prone positioning' by Tranos *et al.*¹

The authors claimed, 'we have shown that macular hole surgery without prone posturing results in similar closure rates to conventional surgery with strict early postoperative posturing.' We would like to challenge the construct of their study and the validity of its conclusion.

First, the authors did not state how the subjects were assigned to the posturing and non-posturing groups. Although both groups appeared to be comparable, the process of patient assignment to one of the two groups was not randomised and thus could be a source of bias.

Second, the exact posture and the duration of posturing by the subjects were not quantified, which is a fundamental flaw in this study. Although the subjects in the non-posturing group were told 'to avoid lying supine', no other specific posturing instructions were given. Could the patients in the non-posturing group have adopted prone or semi-prone positioning without the authors' knowledge? It is possible that the ophthalmologists who initially examined the patients could have explained the need for strict facedown positioning when treatment was discussed before the patients were referred for macular hole surgery. The patients could also have read about this routine on patient information sheets or the internet, or even witnessed other postoperative patients position themselves facedown in the ward. Moreover, there exists an entire spectrum of postures that can satisfy their definition of 'non-posturing', ranging from facedown prone position all the time to lying on one's side all the time, that patients can adopt and the failure to account for this gravely undermines the conclusion of the study. Ideally, an objective measure of the patients' actual posture (eg, the angle of head tilt) at all times and the duration of such posturing would be helpful for this study. A measuring device, such as the 'Maculog' proposed by Verma *et al.*,² may be useful in this respect.

Similarly, the compliance of the subjects with the head positioning in both groups was not described. This may be significant, especially in the posturing group, as the actual posturing time may be only half of the perceived posturing time.²

In our opinion, this study has yet again failed to shed light on this unresolved controversy. A large randomised controlled trial with an objective measure of patients' posture and compliance will better elucidate the role of prone positioning after macular hole surgery.

References

- 1 Tranos PG, Peter NM, Nath R, Singh M, Dimitrakos S, Charteris D *et al.* Macular hole surgery without prone positioning. *Eye* 2007; **21**(6): 802–806.
- 2 Verma D, Jalabi MW, Watts WG, Naylor G. Evaluation of posturing in macular hole surgery. *Eye* 2002; **16**(6): 701–704.

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We thank Drs Woo and Au Eong for their interest in our article and are pleased to offer our replies.

The study was conducted in Worthing Hospital and Moorfields Eye Hospital. To clarify, patients who were operated in Worthing were assigned to the non-posturing group and the ones who were operated in Moorfields were instructed to posture postoperatively.

Posturing instructions to study patients were given by the research staff and were clear. Patients in the posturing group were instructed to assume 10 days face down positioning. In the non-posturing group, patients were advised to carry on as normal without assuming any particular position but they should avoid lying supine for 10 days. This was done to minimise the disruption of macular hole surgery to their daily routine, which is currently one of the main limitations of conventional surgery.

They raise an interesting point regarding compliance, which is an important issue in these patients. Previous reports have shown that even when strict instructions are given, patients fail to follow them as required.^{1–3} Due to the difficulty in posturing, and the disruption to the postoperative quality of life, it is even less likely that patients who were not instructed to posture would do so for any significant amount of time. As the macular hole surgery in the two groups was conducted in two different units with two separate protocols regarding posturing postoperatively, it is very unlikely that any member of staff would have informed non-posturing patients about posturing and the patients would certainly not have witnessed other patients posturing on the ward. Admittedly, they could have got information via the internet, but none from this group queried the need for posturing to any of the research staff during the length of the study. Furthermore, differences in indirect signs between the two groups including more pigment on the endothelium and the development of significantly less cataract in the posturing group indicated that patients made an effort to comply with their given instructions as much as possible. Our results have also been corroborated by subsequent reports, which have found comparable success rates to ours for macular hole surgery with no posturing.⁴

We agree that the lack of randomisation of the two groups may have been a source of bias, and despite the prospective controlled design of our study, we