

## Response to “Use of air in macular hole surgery”

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Dear Sir,

The author describes that the role of the gas bubble is “macular-hole isolation”. We agree with this macular-hole isolation theory. We consider that face-down posturing is basically not necessary. Buoyancy forces do not seem to be so important for macular-hole closure as reported; therefore many macular holes, especially small-size holes, are expected to close without face-down posturing when isolated enough. However, in many situations, we think that surer isolation of macular hole can be obtained with face-down posturing. So, we request for patients to be positioned face-down for at least several hours. After macular-hole closure is confirmed by FD-OCT under the air bubble, posturing is stopped, as Masuyama et al. reported [1]. Because the closure rate of large holes tends to be low, as shown in our report, we consider that it is necessary to confirm the macular-hole closure more carefully. On the other hand, lateral positioning is a less

painful way for macular-hole isolation. The outcome of macular-hole operation with lateral positioning is now examined.

This review is simply and thoughtfully constructed. As the author mentioned, it is highly possible to obtain a sufficiently high closure rate according to macular-hole isolated theory without face-down posturing. Though it has been controversial whether face-down posturing is necessary or not, this review can be of great assistance for a united view.

### Reference

1. Masuyama K, Yamakiri K, Arimura N, Sonoda Y, Doi N, Sakamoto T (2009) Posturing time after macular hole surgery modified by optical coherence tomography images: a pilot study. *Am J Ophthalmol* 147:481–488

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