Reviewer's report

Title: Comparison of silicon oil removal with various viscosities after complex retinal detachment surgery

Version: 1 Date: 15 March 2006

Reviewer: Gopal Lingam

Reviewer's report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Although the findings cannot be disputed, the explanation for the differences observed between the two groups cannot be satisfactorily explained.
2. The authors state in the methods section, that there is no bias involved in the selection between the two varieties of silicone oil and that the selection was purely based on the availability of the same at the given point of time. However in the discussion they state that it is possible that more severe PVR group received the 5000 CST. If it is not by intention but more of a fortuitous occurrence, the same may have to be stated.
3. While the 1000 CST silicone oil is likely to lead to more emulsification in shorter time, the 5000 CST silicone oil has been retained in the eye for a longer time. This factor could effectively make the amount of silicone oil emulsification similar in the two groups, although such information is not available.
4. The authors may have to admit that the explanation offered for the difference noted in the incidence of recurrent retinal detachment is at best a conjecture.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Page 5, lines 16-19- the authors should consider fragmenting the sentence to make it more understandable.
2. Page 6, lines 7-8. – The sequence should be altered as – ‘All eyes had completely stable, reattached retina prior to silicone oil removal. Oil removal was as complete as possible.
3. The authors have used abbreviations without introducing the full form to the reader. Eg. PVR, PDR
4. The removal of silicone oil was done through limbus since all the patients are aphakics. However the authors have not mentioned about any additional membrane removal that might have been required in at least some cases. In such an instance additional sclerotomies may be needed and removal of silicone oil could be done through the sclerotomy rather than a separate sclerotomy.

Discretionary Revisions (which the author can choose to ignore)

1. It was also stated that tamponading effect of silicone oil reduces with greater emulsification. This reduction in tamponading effect is likely to be more with 1000 CST silicone oil versus 5000 CST silicone oil, since emulsification is stated to be more with 1000 CST oil. It is also possible that recurrent retinal detachment may be evident even with silicone oil in situ, if the tamponading effect is significantly reduced and untreated breaks are reopened. As a corollary, eyes with less emulsification (5000 CST) may harbour lesions, with potential for recurrent retinal detachment but
manifesting the same only after the removal of silicone oil, while eyes with more emulsification (1000CST), may develop recurrence of retinal detachment with silicone oil in situ and may hence be re-operated without removal of silicone oil. The factors of post silicone oil removal occurrence of PVR and new breaks formation would be common for both the groups.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests