Reviewer's report

Title: Efficacy of Sub-Tenon's block using an equal volume of local anaesthetic administered either as a single or as divided doses

Version: 2 Date: 17 January 2009

Reviewer: Vasant V Raman

Reviewer's report:

Major compulsory revision
The Authors have selected a very interesting topic of clinical importance.
Unfortunately there are a number of flaws in the design and conduct of the study.
1. The authors need to clearly mention the primary outcome and secondary outcome measures. It is assumed here that the primary outcome measure is ocular movement.

In the section on Material and Methods, the authors have described a new technique of measuring ocular motility by vernier caliper. There is no reference to this technique in the literature. If they are using this new technique how was it validated? The authors mention the operating surgeon as assessing the movement, was it a single or many surgeons. What about Inter/Intra observer variability? (This is the most important aspect of the paper)

2. The authors conclusion about their research need to be looked at.
They conclude by saying that a single injection of local anaesthesia for subtenons block was found to be superior to provide akinesia of ocular muscles compared to divided doses. Whereas in the results they state that at 3 minutes there was a significant difference but at 6 minutes there was no difference.
At 3 MINUTES you are assessing the motility between 5 ml in Group1 and 3ml in Group2. At this stage you have not even administered the 2nd part of the divided dose of 2ml!. At this stage you can only conclude by saying that 5 ml dose is more effective than 3 ml dose for subtenons anestheisa. At 6 minutes after having administered the total amount of anaesthetic solution of 5ml each in both the groups the outcome is what the research is trying to ask. The answer is there is no difference!

3. In the abstract the authors mention about patient satisfaction (section on results). There is no mention of this elsewhere in the paper! How was patient satisfaction evaluated?

4. All RCT should have the consort flow diagram about randomisation and final statistical evaluation.

Minor essential revision.
1. The use of term Blinded should be avoided in the context of Eye related research for obvious reasons. Masked would be appropriate.
2. The last sentence on methods in the abstract section is incomplete.
3. Section on Material and Methods;
   a. EXCESS should read access
   b. Benoximate should read benoxinate(?)
   c. Moorsfields is misspelt
   d. Stephen's should read as stevens (also include the manufacturer)
   e. This sentence is erratic A 19 guage stevens cannula was carefully placed subconjunctivally into the sub-tenons space. (REMOVE SUBCONJUNCTIVAL)
   f. knowa should read (KOWA)
   g. 2nd last line in page3 - medial instead of redial
4. Section on results
   Was the demographics of the study- age and gender equally matched. You need to mention that this was/was not statistically significant.
5. Section on discussion
   That sub-tenons approach is safer (Line 4) should be changed to relatively safe, as there are reports of serious complications with subtenions anesthesia as well.
   The authors may want to alter the discussion in the light of the above.

**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:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interest'