Reviewer’s report

Title: First and second eye cataract surgery and driver self-regulation among older drivers with bilateral cataract: a prospective cohort study

Version: 1 Date: 03 Dec 2017

Reviewer: Cynthia Owsley

Reviewer’s report:

This study provides novel information to the literature. Both clinicians and scientists should find the study’s findings of great interest.

1. Visual acuity should have been measured with habitual correction used while driving (if participant had one), but the manuscript does not provide specific information on this issue.

2. Seven days of recording naturalistic driving data is a very brief period of time by naturalistic driving study standards. Typically studies such as this that are focused on relating driver characteristics to driving assess driving over much longer period of time, such as months or years. One week of driving may not be representative of the participant's driving. This should be cited as a limitation of the study.

3. The manufacturer and model of the in vehicle monitoring system should be stated in the manuscript. Readers will want to know what device was used.

4. How did the authors know for certain that the participant was actually the driver of the vehicle for all drives during the seven day period. This seems like a critical issue. Perhaps they used the diary but is it known how compliant participants were in recording their drives in the diary.

5. In discussing previous research on the impact of cataract surgery on driving exposure in the Discussion, the authors should also consider JAMA 2002; 288: 841-849, which suggested that driving exposure continues to decrease over the years post cataract surgery, much like it does for drivers who have cataract but do not elect surgery. Although the JAMA study used self report measures of exposure, not objective measures of exposure, the study looked at a much longer period of time (several years after surgery). The authors should consider whether the increased amount of driving in their own study was perhaps something like a "rebound" effect, meaning at first there were increased levels of driving and less self regulation in the period immediately following surgery, but that the study does not address the longer term impact on driving exposure and self regulation. The aforementioned JAMA study suggests that following surgery, exposure levels, in the longer term, follow the levels of those who did not elect cataract surgery.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
**Does the work include the necessary controls?**  
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**  
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**  
Please indicate the quality of language in the manuscript:

Acceptable

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