Reviewer's report

Title: Atypical language organization in temporal lobe epilepsy revealed by a passive semantic paradigm

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Reviewer: César Ávila

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The problem the authors are concerned with is an important one. Any advancement in the field of the presurgical evaluation by means of fMRI techniques is very important since few steps have been achieved in the last years. I believe that increasing the number of validated problem-specific (language, motor, sensory etc.) paradigms suitable for clinical routine application will certainly improve neurosurgical performance (faster surgeries and recoveries, less complications, better prognosis) as well as reduce load on personnel and budget. However, I have some concerns about the manuscript.

Major Compulsory Revisions

1. The relevance of Wernicke’s area in the TLE patients presurgical evaluation is not so straightforward, and the authors should explain further this point. Wernicke’s area is far from mesial temporal lobe, and it is not affected by surgery. Why is then relevant for TLE? In the discussion, the authors mention the relationship with verbal recall, but I wonder if this relationship is stronger for language lateralization in Broca’s than Wernicke’s area. The authors should clearly justify why is relevant for presurgical assessment of LTE.

2. The SEN vs PSEN contrast did not yield the expected neural differences in temporal lobe. From my point of view, this is a serious drawback of the manuscript since we do not know if reported activations are specifically related to language.

3. The above issue is still more relevant if we attend to results of the control group. Typically, language tasks are left lateralized in healthy subjects. However, this is not the case for the present task since LI for the control group is close to zero. The authors should discuss if their passive task is really a language task.

4. I would suggest to correlate LIs with neuropsychological measures (especially, with verbal memory and language tests). Independently of the nature of the task, a significant correlation between fMRI-derived measures and neuropsychological scores in any group would serve to validate the clinical use of the task. Unfortunately, these correlations are not presented in the manuscript.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interest