Manuscript: JoVE52773

We thank the reviewers for their careful and helpful comments and set out below the changes we have made to the manuscript in response. These changes are also tracked in the Microsoft Word document.

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| Reviewer’s comments | Authors’ response |
| Major concerns: No major concerns except the figure 1 that is a little bit confusing because all electrodes are superimposed: it seems that some electrodes are implanted in the thalamus or the lateral boarder of the brainstem for example (yellow and green one) which is not the case . It would be nice to have also a view of the electrodes implanted in the anterior cinculate gyrus. | We have modified Figure 1 such that all three planes are demonstrating the anterior cingulate electrodes. Unfortunately, since the electrodes are all in different planes, some of them will appear to be in different planes no matter which cuts we choose. |
| L 130: at least one of the first paper describing the original methodology should be mentioned to be fair: Talairach J, Bancaud J: Stereotaxic approach to epilepsy. Methodology of anatomo-functional stereotaxic investigations. Progr Neurol Surg 5:297-354, 1973. | Although a search of Medline did not reveal this reference, we have added a similar reference from those authors. Thank you. |
| L138: I will add the following sentence : SEEG has been used for 4 decades mainly in France and Italy, and for that reason it is more common in Europe. | This has been added. |
| l 140 : burholes should be replaced by twist drill | This has been changed. |
| L141 i will add : « the ease of examining bilateral hemispheres, but only when required and not on a systematic basis" | This has been changed. |
| L181 : Ensure that the patient suffers from focal epilepsy | This has been changed. |
| L186 : SEEG is not indicated only when grids are not indicated ; in centers using SEEG, all patients requiring depth recordinsg are explored using SEEG, even if a superficial cortical focus is suspected | The language has been changed. |
| L526 : LFPs originate from excitatory and inhibitory post synaptic membrane potentials | This has been changed. |
| L530 : i do not understand what « SEEG Ecog data » means ? do you mean SEEG data ? | Ecog has been removed. |
| L541 : i am not sure that the orbito cortex is deeply located (as opposed to insula or cingulate cortex), it is at the surface but not easely reached from the convexity | Language changed. |
| 1) It may be useful for the reader to have more information about the electrodes used in the procedure. For instance, are the electrodes from FHC or Medtronic? What is the electrode material? What is the general impedance of the electrodes and the tip diameter and un-insulated length? | We have added those details to the materials section of the paper. Thank you. |
| 2) Although the processor has 512 channels, does the authors suggest an ideal number of depth electrodes that can be (should be) simultaneously recorded from when considering spatial/temporal resolution and technical/data size feasibility and management? As a related question, what is the safest/closest distance that one depth electrode can be from another using the stereotactic navigation software and considering surgical considerations, e.g., hemorrhage? | The number of electrodes is determined by the clinical status of the patient in terms of potential seizure foci. In practice, there are never more than 15-20 electrodes placed so spatial/temporal resolution and data size management is never an issue. Placed an additional note at line 401 for clarity. In general, the head frame and navigation software claim an accuracy within 1-2 mm but in practice*,* each electrode is probably at least 1-1.5 cm away from the nearest electrode. |
| 3) The last page of the manuscript (page 26) is incomplete and the sentence on page 25 starting with "This splitter box is a semi-custom device" is also incomplete. | This may be a function of the Excel table being large in landscape format and going on to the next few pages. |