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Presentation THE NUMBER - Contact: THE EMAIL

OVERVIEW

Background

- Item 1
- Item 2
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Main research question

- What is your question?

More text!

Secondary research questions

Approach

METHODS

Patients

- We obtained micro-electrode recordings from 11 neurosurgical patients undergoing epilepsy monitoring
- Patients were implanted with intracerebral micro-electrodes (as in Mormann et al. 2008)
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More Info

- Anaesthesia was induced solely by a target-controlled infusion of propofol (as in Schnider et al. 1998)
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METHODS: MICRO-ELECTRODE RECORDINGS

Micro-electrode recordings

- Each clinical electrode was equipped with 8 micro-electrodes protruding from its tip
- Electrodes were located bilaterally in the hippocampus, amygdala, entorhinal cortex, and parahippocampal cortex
- Unit activity was extracted and spike-sorted with a custom program based on wave\_clus (Quian Quiroga et al. 2004)
- Please cite Combinato if you used it

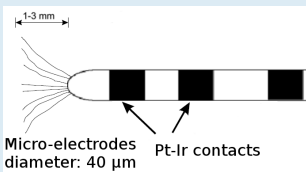


Figure 1: Schematic drawing of electrode with protruding micro-wires

RESULTS

Dataset

- Analysis is based on a total of
- Unit distribution:

Overall effect of

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Figure 2: A bit of a caption

RESULTS: MORE

More text

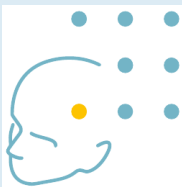


Figure 3: Yet more text

RESULTS

- We defined **loss of consciousness** as
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Firing rate at loss of consciousness

- For each patient, we calculated
- Variability between patients was high
- The relative firing rate is not significantly different from 1 (t-test,  $P > .27$ ,  $N = 9$ )
- A possible interpretation is that continued neuronal firing at baseline rate

FURTHER AIMS

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REFERENCES

- Mormann, F. et al. (2008). *Latency and Selectivity of Single Neurons Indicate Hierarchical Processing in the Human Medial Temporal Lobe*. The Journal of Neuroscience 28:8865–8872.
- Quian Quiroga, R., Z. Nadasdy, and Y. Ben-Shaul (2004). *Unsupervised Spike Detection and Sorting with Wavelets and Superparamagnetic Clustering*. Neural Computation 16:1661–1687.
- Schnider, T. W. D. et al. (1998). *The Influence of Method of Administration and Covariates on the Pharmacokinetics of Propofol in Adult Volunteers*. Anesthesiology 88:1170–1182.