



Ottava Giornata della Ricerca della Svizzera Italiana

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Modulo per la sottomissione abstract di ricerca **STUDENTI MASTER**

Titolo (massimo **15 parole**)

The Effect of Propofol on High-Frequency Oscillations (HFOs) in preoperative electrocorticography.

Autori (cognome e iniziali, es: Grassi L.)

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Testo (massimo **250 parole**, preferibilmente in italiano (accettato anche in inglese), suddiviso in Introduzione, **Metodi, Risultati, Conclusioni e Finanziamento**)

Introduction: Recently, interictal high frequency oscillations in the electrocorticogram of epileptic patient have been shown as a reliable biomarker for the epileptogenic zone. The pre-surgical and intraoperative evaluation of interictal ECoG is conducted through the observation of epileptic spikes. Despite the increasing amount of investigations on HFOs, the relevance of HFOs compared to spikes and the influence of anesthesia on HFOs still require further clarification. The aim of this study is to quantify the effect of propofol on spikes and HFOs rate.

Methods: Pre-operative ECoG was collected in one patient with implanted electrode grid during propofol administration. The bispectral index during anesthetic infusion was registered. Spikes, ripples, fast ripples and composed events were visually marked. The temporal trend of the BIS was compared with the one of the rates for each type of event. The Spearman correlation between BIS and each type of event and between event types was determined.

Results: The main findings are:

- propofol causes a decrease in spikes and ripples rates in the irritative zone (zone with interictal spikes)
- there is a strong correlation between ripples and FRs: this leads to the conclusion that the FRs rate as well decreases in IZ because of propofol
- ripples could be found also in the eloquent zone, where their rate is not affected by propofol.

Conclusion: Propofol causes a decrease of spikes, ripples and FRs, particularly in the IZ. This study corroborates the finding that FRs are a more reliable biomarker than ripples for the localization of the IZ.

Visto superiore (prego indicare Nome e Cognome del superiore)

Prof. Dr. techn. Johannes Sarnthein

Criteria per sottomissione Abstract:
NO Case report
NO Abstract senza nessun risultato
VISTO da un superiore



Invio Abstract