

MEG in Epilepsy: Where are we?

Chair: Stefan Rampp, University Hospital Erlangen, Germany

Room: # 103

Date and Time: Monday, October 3 / 13:30-15:30

Presurgical evaluation of pharmaco-resistant focal epilepsy is one of the main clinical applications of MEG. A growing body of evidence demonstrates that MEG source analysis provides additional clinical value which results in higher and more robust seizure freedom rates even in the long-term. However, there are still open questions which range from clinical issues to methodological problems, which cannot be answered by the clinical community alone.

The symposium reviews the role of MEG in epilepsy and summarizes current evidence. Clinical issues in adult and childhood epilepsy are discussed which are insufficiently addressed by current available methodology, e.g. patients with no or not enough epileptic activity for reliable results, multifocal activity and complex propagation phenomena. Controversies are discussed, such as the value of ictal versus interictal MEG results and the necessity for inverse models beyond the dipole. Novel methods at the verge to enter the clinical routine are summarized, e.g. connectivity based methods, as well as the use of non-spike markers for the epileptic network.

Speakers:

Stefan Rampp M.D. (Univ. Hospital Erlangen, Germany)

“Value of MEG in adult epilepsy”

Hiroshi Otsubo PhD. (Univ. of Toronto, Canada)

“Value of MEG in childhood epilepsy”

Ritva Paetau MD. (Helsinki Univ. Central Hospital, Finland)

“Ictal MEG: Viability and added value”

Hideaki Shiraishi M.D. (Hokkaido Univ. Hospital, Sapporo, Japan)

“Source analysis in epilepsy: Beyond the dipole”