

The Findings EEG-LORETA about Epilepsy

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Abstract : Neural activity in the human brain starts from the early stages of prenatal development. This activity or signals generated by the brain are electrical in nature and represent not only the brain function but also the status of the whole body. At the present moment, three methods can record functional and physiological changes within the brain with high temporal resolution of neuronal interactions at the network level: the electroencephalogram (EEG), the magnet oencephalogram (MEG), and functional magnetic resonance imaging (fMRI); each of these has advantages and shortcomings. EEG recording with a large number of electrodes is now feasible in clinical practice. Multichannel EEG recorded from the scalp surface provides a very valuable but indirect information about the source distribution. However, deep electrode measurements yield more reliable information about the source locations. Intracranial recordings and scalp EEG are used with the source imaging techniques to determine the locations and strengths of the epileptic activity. As a source localization method, Low Resolution Electro-Magnetic Tomography (LORETA) is solved for the realistic geometry based on both forward methods, the Boundary Element Method (BEM) and the Finite Difference Method (FDM). In this paper, we review The findings EEG- LORETA about epilepsy.

Keywords : epilepsy, EEG, EEG-LORETA

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