

Oral Presentation

Management of MRI-Negative Epilepsy

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Abstract

In the absence of a demonstrable epileptogenic lesion, epilepsy is often referred as nonlesional epilepsy. The term of MRI-negative epilepsy is used instead of nonlesional epilepsy, because histopathological examination of resected tissues has revealed lesion in 50% of nonlesional MRI patients. In general the chance of postoperative seizure freedom outcome from epilepsy surgery is less favorable in nonlesional MRI-negative patients. However thanks to advances in MRI technology, the sensitivity in detecting epileptic lesions improved dramatically over the last two decades. If MRI is negative, the definition of the epileptogenic zone has rely on localization information derived from methods such as semiology, EEG, SPECT, FDG PET and invasive evaluations. In MRI-negative patients when there was concordance among interictal scalp EEG, ictal scalp EEG, PET and siscom, 80% of the patients gained postsurgical freedoms, whereas the rate was only 45% when only two modalities were concordant. In this article I will discuss about step by step management of MRI-negative epileptic patients and the role of noninvasive and invasive studies in selection of these patients for epilepsy surgery.

Keywords: MRI, Negative, Epilepsy.

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