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PROPOSALS AND NUANCES TO AMELIORATE THE SURGICAL RESULTS OF TEMPORAL LOBE EPILEPSY

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Resumen

The temporal lobe is the most frequent location involved in Epilepsy Surgery and is also the surgical procedure with the best results: 70-90% of Engel I-II.

The methodology could apparently differ in each Epilepsy Surgical Unit (ESU), but, essentially, it consists of non-invasive and/or invasive studies, surgical treatment, pathological studies and review of results. In our ESU we prefer to perform epileptic seizure recording with foramen ovale electrodes (FOE); and Spencer's surgical technique for temporal lobe removal, tailored according to intraoperative electrocorticography (ECoG). We get global results of 94% in Engel I-II.

The type of lesions visualized in MRI is crucial. We classify them as surgical lesions (tumor or cavernous angioma), lesions that could guide us to the location of epileptogenic zone (mesial sclerosis, dyplasia...) and non-lesion MRI. Our results are 100%, 95% and 88% seizure-free patients, respectively. From our point of view, patients with no lesions on the MRI must not be excluded, as we could reach good results in more than 80%.

Another important issue, in our experience, is the use of semi-invasive EFO. The global results of patients explored with Video-EEG alone or with FOE could vary in almost 20 points in the percentage of seizure-free patients.

There have also been another nuances that have helped us to improved the results: 1. Pharmacological activation (Etomidate) during EFO/Video-EEG and ECoG. 2. Studies about synchronization clusters of interictal activity in ECoG recording.

We have found that there is a group of patients with dominant temporal lobe epilepsy, normal MRI and normal neuropsychological studies. In these cases we are considering the possibility of performing a much smaller radiosurgical lesion, based on voltage sources found in FOE recordings.

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