Postictal Language Assessment as a Prognostic Tool for Complex Partial Seizures

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Introduction:
Many tests are currently in use for the preoperative evaluation of epilepsy Surgery candidates; however, the sensitivity, specificity and prognostic value of most of these tests have not been empirically determined. Postictal Language Assessment is a preoperative test for which the sensitivity and specificity have been documented. The goal of this study is to determine if PLA testing has value as a prognostic tool for epilepsy surgery candidates independent of other preoperative tests.

Hypothesis:
Concordance of preoperative Postictal Language Assessment with hemisphere of resection is associated with good outcome (patients who are seizure free or nearly seizure free) following anterior temporal resection for epilepsy.

Methods:
PLA testing was performed on patients monitored with Video/EEG recording. The patient was asked to read a test phrase immediately following the cessation of a seizure. Ability to read the test phrase within 60 sec was interpreted as a dominant hemispheric epileptogenic focus, while an inability to do so was interpreted as a non-dominant focus. Concordance was defined as the PLA being consistent with a dominant hemispheric onset and the surgical resection being performed on the dominant temporal region.
A database for the collection and storage of patient data was written in Filemaker v4.O. Data from patients who have undergone surgical treatment for temporal lobe complex partial seizures over the last ten years were evaluated and entered. Those data that meet the testing criteria outlined in our original proposal will undergo multivariate analysis comparing PLA to other presurgical tests.

Results:
The database for data collection and storage has been completed. Currently data from over 90 patient records have been collected and entered and data collection and entry is ongoing. These data will be analyzed once a sufficient number of appropriate subjects have been identified and their data entered.