

## P060 | Language And Communication Abilities In Temporal Lobe Epilepsy Patients: Right Vs. Left Hemisphere's Processing

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**Purpose:** Most of previous studies in temporal lobe epilepsy have focused on production and comprehension of single word and sentence level analysis, centered in the left hemisphere. Although communication abilities, in which right hemisphere's processing is required, have remained unexplored in this population. The purpose of this study was to investigate interictal communication abilities in patients with right lateralized medial temporal lobe epilepsy (RTLE) comparing it with that of patients with left TLE (LTLE) to determine potential impairments and its lateralizing value.

**Methods:** 120 pharmaco-resistant TLE patients were evaluated: 55 with RTLE and 65 with LTLE. Subjects underwent a battery of language tests that measure: naming, verbal fluency, verbal inhibition, logic-temporal sequencing, conversational discourse, prosody, comprehension, narrative discourse, indirect speech acts and idiom expressions. Results were compared to those of normal population and deficit was established when performance was below the Z -1.5 or percentile 5. Statistical significant value was considered at  $p < 0.001$ .

**Results:** RTLE compared to LTLE patients, showed significant poorer performance in conversational and narrative discourse, idiom expressions' and indirect speech's comprehension and emotional prosody. RTLE group had a tendency to tangential and disintegrated speech, lack of hierarchical and categorized codification and a significant deficit in social meaning inference. Otherwise, LTLE group showed lower performance in logical temporal sequencing. No statistical differences were found in single word level tests analysis.

**Conclusion:** RTLE patients showed communication deficits which are similar to been described in right hemisphere damaged patients due to other etiologies. These communication deficits demonstrated to have a lateralizing value and could guide cognitive stimulation programs. Right anterior and mesial temporal structures would have a direct role in prosody processing, and an important role in discourse and pragmatic processing as a link between semantic, language and social processing to build a coherent meaning according to the context.

## POSTER PRESENTATIONS

SUNDAY 23 JUNE

### ADULT EPILEPTOLOGY 1

## P061 | Efficacy Of EEG In Anti-NMDA Encephalitis

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**Purpose:** Anti-N-methyl-D-aspartate receptor (NMDAR) encephalitis is one of the most famous non-herpetic acute limbic encephalitis which is clinically characterized by psychological symptoms, central hypoventilation and treatment-resistant involuntary movements. The aim of this study was to elucidate the characteristic findings of electroencephalogram (EEG) in the patients with anti-NMDAR encephalitis.

**Method:** We searched the medical records including EEG findings of patients with autoimmune encephalitis, who admitted to Kumamoto University between April 2015 and July 2018. In addition to EEG findings, we checked the age, gender, clinical symptoms, CSF findings, neuro-imaging, associated tumors and autoantibodies.

**Results:** Eleven patients with autoimmune encephalitis were admitted to our Department. Clinical symptoms included impaired consciousness (11/11, 100%), seizure (8/11, 73%), psychobehavioral alterations (7/11, 64%) and involuntary movements (7/11, 64%). Mechanical ventilation support was required in 6 patients (55%). CSF test abnormalities included pleocytosis (9/11, 82%) and elevated protein (7/11, 64%). Tumors were found in 7 patients (64%): ovarian teratoma (n = 4), thymoma (n = 2), neuroblastoma (n = 1). EEG abnormalities included background slowing in the theta range (11/11, 100%), FIRDA (6/11, 55%), focal paroxysmal discharges (6/11, 55%) and delta blush sign (3/11, 27%). Of 11 patients with autoimmune encephalitis (men 2, female 9), the number of patients with anti-NMDAR encephalitis was seven (men 2, female 5). Autoantibodies against non-anti-NMDAR protein included VGKC (n = 1), CV2 (n = 1), Hu (n = 1), SOX (n = 1). The time-dependent EEG changes according to clinical stages in the patients with anti-NMDAR encephalitis were more severe in comparison with those