

## PW01-190 - LEFT TEMPORAL LOBE DYSFUNCTION IN SCHIZOPHRENIA: A DICHOTIC LISTENING ERP STUDY

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Structural and functional abnormalities of the left hemisphere, often involving the temporal lobe were frequently observed in schizophrenia. However, negative and discrepant findings were also reported. Our study aimed to investigate the presence of lateralized impairment of event-related potentials, recorded during a tonal dichotic listening task, in a group of clinically stabilized patients with schizophrenia.

The ERP component N100, related to sensory processing of stimuli and generated in the temporal lobe cortex, was investigated. A passive dichotic listening task was used in order to exclude the effect of attention impairment on the observed ERP abnormalities.

Patients with schizophrenia showed a pattern of hemispheric lateralization comparable with that observed in healthy controls. In both groups, dichotic listening inhibited the augmenting pattern of N100 amplitude with increasing tone intensity. However, patients failed to demonstrate the augmenting pattern of the N100 also with monaural tones, over the left temporal leads. This abnormality did not correlate with the severity of psychopathology. A role of antipsychotic treatment was excluded as the N100 showed a normal pattern of amplitude increase over right temporal leads.

Our results suggest a state of functional inhibition of the left auditory cortex, akin to that induced by dichotic listening, in subjects with schizophrenia, independent of psychopathology or drug therapy.