

EFFECTS OF OLANZAPINE ON THE AUDITORY P300 IN SCHIZOPHRENIA

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Reduced auditory P300 amplitude generally has been considered to be a trait marker of schizophrenia, independent of antipsychotic treatment and clinical symptoms. However, several seemingly well conducted studies have found P300 amplitude to be a state marker correlated with clinical symptoms. Recent research on atypical antipsychotics indicate that these medications may alter P300 amplitude as well as having beneficial clinical effects. The objective of the present study was to further elucidate the effects of schizophrenia, symptom severity, and medication status on the P300. The baseline auditory P300 was assessed in unmedicated schizophrenic patients who then were treated with olanzapine for 6 weeks and reassessed. Healthy control subjects were assessed at baseline and again at 6 weeks. Compared to healthy controls, the unmedicated patients' P300s were attenuated and delayed prior to treatment. Subsequent antipsychotic treatment increased the patients' P300 amplitudes without affecting latency. Frontal P300 amplitude was normalized, but parietal P300 amplitude remained below that of healthy controls. Although olanzapine was effective in reducing the patients' symptoms, there were no correlations between symptoms and P300 amplitude or latency either before or after treatment. The results of the present study lend support to the view that P300 amplitude behaves as a trait marker. No evidence is found of a P300 clinical state marker.

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