

P300 DELAY AND ATTENUATION IN SCHIZOPHRENIA: REVERSAL BY NEUROLEPTIC MEDICATION

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Background: P300 amplitude reduction in schizophrenia has been found by many investigators but P300 latency generally has been reported to be normal. However, conflicting findings are present in the literature and interpretation has been confounded by medication effects and methodological differences. **Methods:** This study used a standard auditory oddball paradigm to compare the latency, amplitude, and topographic distribution of P300's in neuroleptic-free schizophrenic patients with those of healthy controls. The patients then were treated for six weeks with either remoxipride or haloperidol and their P300's were reassessed. **Results:** P300's were attenuated and delayed among neuroleptic-free patients. There was no evidence of peak lateralization or amplitude asymmetry over temporal areas. Subsequent neuroleptic medication normalized P300 latencies and increased P300 amplitudes but the latter remained below normal limits over all except frontal areas. There were no correlations between P300 latency or amplitude and clinical symptomatology either before or after treatment. **Conclusions:** The finding of a P300 delay in neuroleptic-free schizophrenics which is normalized by neuroleptic medication has not been reported previously. Neuroleptic effects on P300 amplitude and latency appear to be independent of effects on clinical symptoms, and cannot be attributed to anticholinergic activity.

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