

**Mismatch Negativity (MMN) in schizophrenics with and without major formal thought disorders. J-P. Laurent*, J. Baribeau+,*
Fonds Scientifique de la Chesnaie, Chailles, France + Concordia University, Montreal, Canada.**

Auditory event-related potentials (AERPs) were analyzed in a cross-montage at Fz Cz Pz C3 C4. Two groups of 10 schizophrenics with or without major formal thought disorders (+FTD, -FTD) were tested in a binaural signal detection task at two speeds of stimulation (randomized interstimulus intervals of 250-750 msec and 500-1500 msec). The 24 subjects detected rare randomized targets (1500 Hz, $p=.1$), in series of randomized standard tones (2000 Hz). One group of 8 schizophrenics with major syndrome of formal thought disorders (+FTD) was selected according to RDC, and DSM-III criteria. They were compared to 8 schizophrenics without the FTD syndrome (-FTD) and to 8 controls matched for age, education, medication, hospitalization, and intelligence score. MMN was obtained by subtracting standard ERPs from deviant ERPs in the inattentive condition. Mean MMN amplitude over the 150-250 ms epoch was calculated for each subject and analyzed using a repeated measures analysis of variance.

Preliminary results indicate that FTD group is characterized by an attenuation of MMN amplitude compared to -FTD and control group (Control: 5.2 uV, -FTD: 5.1 uV, +FTD: 1.9 uV; $p < .03$). These findings lend support to an early anomalous processing in +FTD schizophrenics. The results raise the possibility that +FTD schizophrenic deficits in controlled attention as indexed by reductions of PN and P3 amplitude may, at least partly, be due to impairments in early attentive mechanisms.

INTRODUCTION

In a previous study (Laurent & Baribeau, 1992), we have showed that +FTD schizophrenics are characterized by general electrophysiological "flatness" and by pervasive attentional deficits of response-set type (small P3b amplitudes). The aim of the present study is to highlight MMN amplitude differences among this two type of schizophrenics.

CONCLUSION

Our results support the hypothesis that formal thought disorders, in schizophrenia, are characterized by both automatic (indexed by MMN) and controlled (indexed by LPC) process dysfunctions.