

P03-21 - SENSORY GATING OF AUDITORY EVOKED POTENTIALS IN SCHIZOPHRENIA: EFFECTS OF GATING-OUT AND GATING-IN PARADIGMS IN RELATION TO PSYCHOPATHOLOGY

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Deficit of sensory gating in schizophrenia patients was explored in gating-out and gating-in paradigms. A pair of identical clicks was presented in gating-out paradigm. In two gating-in paradigms a second click in a pair was either higher or lower frequency. Sensory gating, an attenuation of evoked responses to the second stimuli in a pair, was measured as a S2/S1 ratio of P50, N100 and P200 evoked potentials, recorded from Cz lead. The data from 34 schizophrenic subjects (averaged age = 46, s.d.10.5; 10 females) and 38 controls (averaged age 41, s.d.13; 22 females), were analyzed. Sensory gating was averaged across four identical EEG sessions. P50 gating was independent from the gating of N100 and P200 components in both groups. Schizophrenics had less gating in all three evoked responses in gating-in paradigms and deficit in N100 gating only in gating-out paradigm. A stepwise regression analysis of gating and PANSS scores has shown that P50 gating in both gating-in paradigms was related to Emotional component, P50 gating in gating-out paradigm was related to Negative component, and N100 gating in gating-out paradigm was related to General Psychopathology Score and Cognitive and Hostility components. A factor analysis has shown that less gating-in (attenuation instead of augmentation) in all three evoked responses in schizophrenic subjects was positively related to all three Total PANSS scores, when the second click in a pair was higher frequency. The results have shown the importance of both gating-in and gating-out paradigms in study of sensory gating in schizophrenia.