

P03-29 - REDUCED CARDIO-RESPIRATORY COUPLING INDICATES SUPPRESSION OF VAGAL ACTIVITY IN HEALTHY RELATIVES OF PATIENTS WITH SCHIZOPHRENIA

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Previous studies have observed reduced vagal modulation in patients with acute schizophrenia and their first degree relatives, thus suggesting a genetic predisposition.

To investigate vagal modulation at brain stem level, we investigated the coupling between heart rate and breathing as a putative measure of central autonomic function in 19 patients, 19 of their relatives and 19 matched control subjects. The interaction of heart rate and breathing was investigated in all groups applying the non-linear parameter cross-ApEn, indicating the asynchrony between both time series.

The main finding of our study is a significantly increased cross-ApEn value, indicating reduced central vagal modulation both in relatives and patients suffering from schizophrenia.

Our results suggest that autonomic dysfunction in schizophrenia is present in first-degree relatives not only at the target organs as shown previously, but also affects the central vagal component.