

P02-320

NEURAL CORRELATES OF COGNITIVE BEHAVIOURAL THERAPY IN PATIENTS WITH SCHIZOPHRENIA

M. Cabanis¹, A. Krug¹, M. Pyka¹, H. Walter², G. Winterer³, B. Müller⁴, J. Herrlich⁵, G. Wiedemann⁶, K. Vogeley⁷, A. Rapp⁸, S. Klingberg⁸, T. Kircher¹

¹Department of Psychiatry and Psychotherapy, Philipps-University, Marburg, ²Department of Psychiatry and Psychotherapy, Campus Charité Mitte, Berlin, ³Department of Psychiatry and Psychotherapy, Heinrich Heine University, Rhineland State Clinics for Psychiatry, Düsseldorf, ⁴Department of Psychiatry and Psychotherapy, University of Duisburg-Essen, Rhineland State Clinics for Psychiatry, Essen, ⁵Department of Psychiatry and Psychotherapy, Johann Wolfgang Goethe University, Frankfurt/Main, ⁶Clinic of Psychiatry and Psychotherapy, Clinical Centre, Fulda, ⁷Department of Psychiatry and Psychotherapy, University of Cologne, Köln, ⁸Department of Psychiatry and Psychotherapy, Eberhard Karls University, Tübingen, Germany

There is evidence that patients with persecutory delusions tend to attribute excessively hypothetical positive events to internal causes and hypothetical negative events to external causes, arrive at hasty conclusions and fail in gathering and assessing adequate feedback, particularly when emotionally salient material is involved. Research on the neural correlates of the corresponding neural correlates and even more so on the potential effects of cognitive behavioral therapy (CBT) on the associated cerebral networks is almost unavailable.

The first and preliminary results of a multicentre fMRI study will be presented.

In this study eighty schizophrenia patients from the POSITIVE clinical trial and eighty healthy subjects were recruited at six German university hospitals (Bonn, Duisburg-Essen, Düsseldorf, Frankfurt, Cologne, Tübingen). After nine months of therapy (either with CBT or Supportive Therapy) patients and controls were re-examined enabling the study correlates of cerebral reorganization processes.

We found reliable differences in brain activation relating to phenomena of decision making under uncertainty, and biased attribution (self- vs. external reference of emotional events). The comparison of both groups revealed significant decreased activation in key areas for decision making, self-reflection, self-relevance and agency attribution of patients with schizophrenia.

The preliminary data analysis of the still blinded treatment arms shows significantly increased activations in these areas after nine months of CBT. This suggests neuroplastic changes according to relearning strategies in psychotic patients with schizophrenia and will hopefully give rise to a more widespread application of CBT in treatment of schizophrenia.