

TREATMENT EFFECT PREDICTION IN PANIC DISORDER PATIENTS - FMRI STUDY

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Introduction: Some patients have a chronic and/or recurrent form of the disorder. Reasons of treatment resistance have been described, but the neurobiological basis of disorder gravity is unclear.

Objectives: Examine if the hyperactivity of right and left amygdala, left posterior cingulate cortex or left dorsolateral prefrontal cortex predict the treatment effect of Cognitive Behavioral Therapy (CBT).

Aims: The aim of our study is to test the hypothesis of treatment predictability in panic disorder patients in fMRI.

Method: 24 patients meeting the ICD-10 criteria for panic disorder with or without agoraphobia. Patients were studied in fMRI during the exposition of threat-related words compared with neutral words and emotional faces compared with fixation points. Patients were studied in fMRI scanner before and after CBT treatment. Psychopathology was assessed using Clinical Global Impression rating scale (CGI) and Beck Anxiety Inventory (BAI). Patients were divided into responders and non-responders groups by the 25% reduction in BAI scale.

Results: Significant reduction of activity was observed in responders on the right amygdala, while the left amygdala decreased activity is lower, and could be the effect of habituation. Increased activation of left Broca's area 46, and 45 was negative treatment effect predictor.

Conclusion: Negative treatment effect predictor is hyperactivity in left dorsolateral prefrontal cortex BA 46 and 45. Positive predictors are higher reactivity of right amygdala for anxious faces, activation of right angular gyrus, right insula, right temporal pole.

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