

P-790 - NEURAL CORRELATES OF FRUSTRATION IN DEPRESSED PATIENTS AND HEALTHY CONTROLS: AN FMRI STUDY

A.Korzenev, A.Lebedev, E.Abritalin

Medical Military Academy, Saint Petersburg, Russia

Introduction: Depressed patients demonstrate low frustration tolerance which increases the risk of suicide and causes difficulties in social adaptation. Resting-state neuroimaging studies revealed abnormalities in “default-mode” network in Major Depressive Disorder (MDD). To our knowledge, functional network responsible for frustration has not been investigated in depressed subjects previously.

Aim: To investigate functional responses to frustration in MDD subjects and healthy controls (HCs).

Methods: 15 subjects with MDD and 15 HCs underwent 10-min fMRI scanning. We used modified Stroop-test to investigate subjects' responses to frustration. There were two sessions: during the first one the subject had to determine the color of the text by pressing corresponding button while scanning; the second one was a “frustrative” part when the subject had to respond within a short period of time. We modified this interval so that it was almost impossible to respond correctly and keep within the allotted time. The subject was being informed on its performance during the test. Independent component analysis was used to isolate the frustration network in each subject. Group maps of the response network were compared. A within-group analysis was performed in the MDD group to explore effects of depression scores on functional connectivity.

Results: We revealed differences in limbic functional connectivity patterns during the test performance in MDD in comparison to HCs.

Conclusions: The findings suggest that low frustration tolerance in depressed patients can be explained by the impaired function of stress-response brain network and reveal perspectives for future research on depression and suicide risk.