PW01-148 - **EFFECTIVE CONNECTIVITY WITHIN THE NETWORK OF FEARFUL FACIAL AFFECT RECOGNITION IN PATIENTS WITH BIPOLAR DISORDER COMPARED TO HEALTHY CONTROLS**

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Objectives: There is significant overlap between the cortical network involved in fearful face perception and regional abnormalities identified in patients with bipolar disorder. The primary aim of this study was to measure effective connectivity arising from Dynamic Causal Modelling (DCM) to identify differences within this network in a group of patients with bipolar disorder and controls during an affective processing task.

Methods: Functional MRI was used to record brain activations from 52 euthymic patients with bipolar disorder and 44 healthy controls engaged in a fearful versus neutral facial affect recognition task. We used Bayesian model selection to identify the best model of effective connectivity, as well as a random-effects analysis. Additionally, the endogenous connections and modulatory influences were extracted and further analyzed.

Results: Within the network subserving fearful facial affect recognition, patients with bipolar disorder demonstrated reduced connectivity from the inferior occipital gyrus to the fusiform gyrus compared to healthy controls. Furthermore this connection when modulated by fear showed a reduction in strength in patients with bipolar disorder.

Conclusions: Bipolar disorder was associated with deficits early in the processing of facial affect suggesting the possibility of perceptual abnormalities being associated with the disorder.