

P-181 - ABNORMAL NEURAL PROCESSING OF EMOTIONAL FACIAL AND SEMANTIC EXPRESSIONS IN ADULTS WITH EUTHYMIC BIPOLAR DISORDER AND THEIR RELATIONSHIPS WITH CLINICAL AND SOCIAL COGNITION PROFILES

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Adults with bipolar disorder (BD) have cognitive impairments that affect face processing and social cognition. However, it remains unknown whether these deficits have basic emotional processing correlates. We recruited twenty six participants, 13 controls subjects with an equal number of euthymic BD participants. We used an event-related potential (ERP) assessment of a dual valence task (DVT), in which faces and words and face-word combinations are presented to test the effects of the stimulus type and valence (positive vs. negative). All participants received clinical, neuropsychological and social cognition evaluations. Both groups had behavioral accuracy, emotional modulation and interference effects on the DVT. ERP analysis revealed that both groups showed N170 modulation. BD patients exhibited reduced and enhanced N170 to facial and semantic valence, respectively. The neural source estimation of N170 was a posterior section of the fusiform gyrus (FG), including the face fusiform area (FFA). Neural generators of N170 for faces (FG and FFA) were reduced in BD. In these patients, N170 modulation was associated with clinical symptoms (mood and anxiety scores), neuropsychology (attention and working memory) and social cognition (theory of mind). This is the first report of euthymic BD exhibiting abnormal N170 emotional discrimination and abnormal fusiform activation associated with clinical profile, executive functions and theory of mind.