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Abstract

Poster Session B

Thursday, November 14, 2019 11:30 am – 1:00 pm

NEUROLOGICAL AND NEUROPSYCHIATRIC DISORDERS: PSYCHIATRIC ILLNESS

B-35

Differences in Blood Flow Perfusion at Baseline in Individuals with Bipolar Disorder

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Objective: To examine differences in blood flow perfusion, measured by single-photon emission computed tomography (SPECT), at baseline between individuals diagnosed with Bipolar Disorder and healthy controls. Method: The participants were part of an archival de-identified SPECT database. The sample (N = 160) had a Mage = 38.85, was primarily male (53.1%) and Caucasian (55%). The sample consisted of individuals diagnosed with Bipolar Disorder using DSM-IV criteria (n = 80, Mage = 36.06, SD = 15.453, 61.3% male) and no DSM-IV diagnosis (n = 80, Mage = 41.64, SD = 16.473, 45% male). Results: One-way ANOVAs showed hypoperfusion in the following areas: left ($F[1,158] = 19.100, p < .001$) and right Limbic region ($F[1,158] = 16.938, p < .001$) and left ($F[1,158] = 41.959, p < .001$) and right Basal Ganglia region ($F[1,158] = 35.768, p < .001$ and hyperperfusion in the following areas: left ($F[1,158] = 20.639, p < .001$) and right ($F[1,158] = 15.645, p < .001$) Cerebellum region. Conclusion: Results of this study do not support previous research which has consistently found hypoperfusion in the temporal and parietal lobes across depressive and manic episodes. Furthermore, hypoperfusion of the right Limbic region is generally seen in those experiencing a depressive episode, while hyperperfusion of the left is seen during a manic episode. It is possible that participants of this study were not experiencing a depressive or manic episode at baseline. Results may be suggestive of euthymia which is distinguishable from healthy controls. It is also possible that these results are indicative of rCBF when a manic or depressive episode ends and transition into a euthymic state begins. Overall, little is known about rCBF in euthymia and this study is limited by unknown diagnosis of Bipolar Disorder I or II.

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