P-513 - SPECIFICITY AND CHARACTERISTICS OF EYE MOVEMENT DYSFUNCTION IN ADULT MAJOR DEPRESSIVE DISORDER

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Major depressive disorder (MDD) affects at some point in their lives a tenth of the world's population with a higher incidence in females than males. Like all clinical disorders encountered in adult psychiatry, a diagnosis of MDD is symptom-based and has not been externally validated. Eye movement dysfunctions (EMDs) in the functional psychoses have been extensively reported and their potential as biomarkers highlighted but it is unclear whether there are patterns of EMDs specific to MDD. Abnormal EMs in bipolar affective cases have been observed during face and picture viewing, saccadic control and smooth pursuit tasks. However most studies reporting EMs in affective disorders, have not distinguished between unipolar/MDD and bipolar cases. To address this problem we have compared performance on a broad range of EM tests in patients meeting DSM-IV criteria for MDD with identical measures made in a large sample of bipolar, schizophrenia and undiagnosed individuals. Remarkably a network classifier was able to delineate controls and each patient group using EM performance measures with exceptional sensitivity (94%) and specificity (98%). What is more, probability of illness category was not associated with demographic, symptom, neuropsychological or medication variables. It therefore appears that a unique multivariate eye movement phenotype may be associated with MDD. If verified in further MDD cases these findings could be an enormous advance in helping to assess and/or diagnose individuals with symptoms of MDD or at risk of developing MDD.

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