

PW01-150 - ASCERTAINMENT OF THE CEREBRAL BASES OF ALEXITHYmia TRAITS IN DEPERSONALIZATION DISORDER

E. Lemche¹, S.A. Surguladze¹, V.P. Giampietro², M.J. Brammer²

¹Section of Cognitive Neuropsychiatry, Institute of Psychiatry, King's College London, PO69, ²Centre for Neuroimaging Sciences, Institute of Psychiatry, King's College London, PO80, London, UK

Objectives: The current study elucidates the relations between alexithymia and brain activation towards happy and sad emotional stimulation in Depersonalization Disorder (DPD). We hypothesized that various facets of the alexithymia construct are differentially related to single neural structures characterizing abnormal emotion processing in DPD.

Methods: Investigated were N = 9 patients with DPD and N = 12 normal controls. To establish the diagnosis of DPD, ICD-10 and scale cut-off values (CDS > 70) were included. Alexithymia was measured using the Toronto Alexithymia Scale (TAS-20). Implicit fMRI tasks inducing three steps of happy and sad facial expressions were run, and clinical trait scores were correlated with brain activation in each emotion category.

Results: Significant positive correlations for alexithymia levels in DPD patients were in the right hypothalamus (happy, $r = 0.60$, $p < 0.00001$) and right retrosplenial cortex (sad, $r = 0.78$, $p < 0.00001$). The prominent regions for alexithymia levels in normal controls were instead in the left cerebellum (happy, $r = 0.71$, $p < 0.00001$) and right ventrolateral cortex (sad, $r = 0.89$, $p < 0.00001$). Significant differences in the regression slopes for the two groups were observed in the left putamen (happy, average $\Delta r = 0.86$, $p < 0.0255$) and in the left dorsal ACC (sad, average $\Delta r = 0.87$, $p < 0.0087$).

Conclusions: The present results suggest that the alexithymia trait is related to specific brain regions dependent on emotion. DPD patients recruit different brain regions compared to normal controls in alexithymia.