

P02-08

NEURAL ACTIVATION DURING THE STROOP TASK IN BIPOLAR DISORDER PATIENTS AND THEIR UNAFFECTED RELATIVES

F. Pompei^{1,2}, M. Haldane¹, M. Kempton¹, J. Jogia¹, P. Girardi², R. Tatarelli², S. Frangou¹

¹*Section of Neurobiology of Psychosis, Department of Psychological Medicine and Psychiatry, Institute of Psychiatry at King's College, London, UK,* ²*Department of Psychiatry at Sant'Andrea Hospital, 2nd Medical School, Università la Sapienza, Roma, Italy*

Aims: To examine potential similarities in neural activation during the STROOP colour word test (SCWT) in patients with Bipolar Disorder (BD) and their unaffected first degree relatives of BD patients as an expression of genetic predisposition.

Methods: 39 remitted BD patients were compared to 46 of their healthy relatives and to 42 controls. fMRI data were collected on a 1.5 T GE Signa MR system using a blocked periodic design and analysed in SPM5.

Results: There was no statistically significant group difference in the behavioural performance. At the corrected cluster level threshold of $p < 0.001$ controls showed more activation than:

- a. BD patients in the caudate, the inferior (BA 47), middle and superior frontal gyri (BA 8, 6, 46), the parietal cortices (BA 7, 40), the precuneus and occipital cortices (BA 7, 19).
- b. Relatives in the caudate and cingulate cortex (BA 24, 31!). No other contrasts were significant.

Conclusion: These findings suggest that changes in neural activation during response inhibition may reflect genetic predisposition to BD.