

PW01-142 - **ABNORMAL AMYGDALA RESPONSE IN WOMEN WITH EATING DISORDER: A FMRI STUDY**

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**Introduction:** Functional magnetic resonance imaging (fMRI) is a neuroimaging technique increasingly used for both patient care and clinical research. This technique provides a space-time high-resolution able to detect small changes in regional brain activation. Objectives: the aim of this study was to compare patterns of regional brain activation in patients with eating disorders (ED) and healthy volunteers during emotional stimulation.

**Materials and methods:** A group of 13 young female ED outpatients was selected using DSM-IV criteria and 13 young healthy female volunteers with no significant differences in sociodemographic or environmental data. fMRI was used to examine the neural responses after visual stimulation with neutral and fearful images, taken from the IAPS (International Affective Picture System) and selected a region of interest (ROI) approach to examine the function of the amygdala in emotional processing. Data processing and higher level analysis were carried out using FSL (fMRI's Software Library).

**Results:** ED patients showed significantly greater right amygdala activation to the fearful images versus neutral images than healthy control subjects ( $p < 0.02$ )

**Conclusion:** A higher right amygdala response to processing of fearful stimuli was observed in ED patients compared to healthy volunteers. This emotional dysregulation in the affective response to unpleasant stimuli would correlate with a maladaptive response and therefore justify disruptive behaviours in this patients.