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Neuroticism is associated with altered resting-state functional connectivity of amygdala following acute stress exposure

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Highlights

- Effect of acute stress on the functional connectivity of BLA and CMA was analyzed
- Association between amygdala functional connectivity and neuroticism was assessed
- Participants showed increased BLA and CMA RSFC with the PCC/Rsp and mPFC
- Neuroticism scores were positively correlated to altered RSFC of the BLA

Abstract

The amygdala, a subcortical structure responsible for fear and vigilance, is central to the stress circuitry. Aberrant amygdala connectivity with the cortical and subcortical regions is found in patients with stress-related disorders, and in healthy subjects following acute stress exposure. However, the extent to which the stress-induced alteration of amygdala functional connectivity correlates with risk-related personality measures remains unclear. Using resting-