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ORAL, JUNE 7

HALL FALCO

Morning

Invited Symposium: Neurobiology of dissociation

Influence of dissociation on emotional and cognitive processing in interpersonally traumatized patients with borderline personality disorder 10:00–10:15

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Objective: Emotion dysregulation is a core feature in borderline personality disorder (BPD). Functional magnetic resonance imaging (fMRI) studies have revealed a hyperreactivity of the amygdala and insula during emotion challenge in BPD patients compared to healthy participants (HC). Emotional distress is often associated with dissociative experiences in BPD. It has been proposed that dissociation is characterized by an overmodulation of affect associated with an inhibition of limbic brain activation. We aimed to investigate the influence of dissociative states on emotional distractibility in BPD patients. **Methods:** In a first study, we included 22 unmedicated BPD patients with a history of interpersonal traumatization and 22 HC (matched for age and education). During fMRI, participants performed a working memory task, while being distracted by negatively arousing versus neutral pictures from the International Affective Picture System. Before and after the task, participants completed the Dissociation Stress Scale (DSS-4), a measure of state dissociation. Based on a median split of their DSS-4 ratings, BPD patients were assigned to two subgroups with high (n = 11) versus low (n = 11) dissociation. In a second study, we applied a script-driven imagery approach. Before performing the emotional working memory task, BPD patients were exposed to either a personalized script inducing dissociation (n = 15) or to a neutral script (n = 15). **Results:** In study 1, BPD patients with high dissociation (n = 11) showed significantly lower activation in the amygdala and insula after emotional distraction compared to BPD patients with low dissociation (n = 11). In study 2, similar patterns of brain activation in the amygdala and insula were observed in BPD patients, who had been exposed to the dissociation script compared to BPD patients in the neutral condition. **Conclusion:** Findings of our studies suggest that dissociative states are associated with lower activation in limbic brain regions during emotional challenge in interpersonally traumatized individuals with BPD.
