Autonomic imbalance is associated with reduced facial recognition in somatoform disorders.

Abstract:

Somatoform disorders are characterized by the presence of multiple somatic symptoms. While the accuracy of perceiving bodily signal (interoceptive awareness) is only sparingly investigated in somatoform disorders, recent research has associated autonomic imbalance with cognitive and emotional difficulties in stress-related diseases. This study aimed to investigate how sympathovagal reactivity interacts with performance in recognizing emotions in faces (facial recognition task). Using a facial recognition and appraisal task, skin conductance levels (SCLs), heart rate (HR) and heart rate variability (HRV) were assessed in 26 somatoform patients and compared to healthy controls. Interoceptive awareness was assessed by a heartbeat detection task. We found evidence for a sympathovagal imbalance in somatoform disorders characterized by low parasympathetic reactivity during emotional tasks and increased sympathetic activation during baseline. Somatoform patients exhibited a reduced recognition performance for neutral and sad emotional expressions only. Possible confounding variables such as alexithymia, anxiety or depression were taken into account. Interoceptive awareness was reduced in somatoform patients. Our data demonstrate an imbalance in sympathovagal activation in somatoform disorders associated with decreased parasympathetic activation.
This might account for difficulties in processing of sad and neutral facial expressions in somatoform patients which might be a pathogenic mechanism for increased everyday vulnerability.