Psychophysiological correlates of peritraumatic dissociative responses in survivors of life-threatening cardiac events.


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The psychophysiological startle response pattern associated with peritraumatic dissociation (DISS) was studied in 103 survivors of a life-threatening cardiac event (mean age 61.0 years, SD 13.95). Mean time period since the cardiac event was 37 (79 IQD) months. All patients underwent a psychodiagnostic evaluation (including the Peritraumatic Dissociative Experiences Questionnaire) and a psychophysiological startle experience which comprised the delivery of 15 acoustic startle trials. Magnitude and habituation to trials were measured by means of electromyogram (EMG) and skin conductance responses (SCR). Thirty-two (31%) subjects were indexed as patients with a clinically significant level of DISS symptoms. High-level DISS was associated with a higher magnitude of SCR (ANOVA for repeated measures $p = 0.017$) and EMG ($p = 0.055$) and an impaired habituation (SCR slope $p = 0.064$; EMG slope $p = 0.005$) in comparison to subjects with no or low DISS. In a subgroup analysis, high-level DISS patients with severe post-traumatic stress disorder (PTSD; $n = 11$) in comparison to high-level DISS patients without subsequent PTSD ($n = 19$) exhibited higher EMG amplitudes during all trials (repeated measures analysis of variance $F = 5.511$, $p = 0.026$). The results demonstrate exaggerated startle responses in SCR and EMG measures - an abnormal defensive response to high-intensity stimuli which indicates a steady state of increased arousal. DISS patients without PTSD exhibited balanced autonomic responses to the startle trials. DISS may, therefore, unfold malignant properties only in combination with persistent physiological hyperarousability.

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