

The Impact of Acute Stress on Emotional Experiences and Histamine Reactivity

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The field of psychoneuroimmunology seeks to evaluate the bidirectional interaction between the nervous system and the immune system. In particular, stress has been shown to impact both psychological and physiological processes. Thus, the present study investigates the influence of acute social stress on emotional and inflammatory responses. Specifically, emotions and functional immunity were assessed before and after exposure to the Trier Social Stress Test (TSST). Emotions were assessed with the PANAS Circumplex scale, which divides emotions into four discrete categories based on varying levels of valence and arousal. Preliminary results suggest that positive valence/negative arousal emotions and negative valence/positive arousal emotions are influenced by acute stress. Specifically, positive valence/negative arousal emotions decreased ($p < 0.01$), whereas negative valence/positive arousal emotions increased ($p < 0.01$). Preliminary analysis on functional immunity, which was assessed with a histamine scratch, suggest little-to-no effect of acute stress on immune reactivity ($p > 0.05$). From these results we conclude that acute stress can impact emotions, which supports the connection between social and psychological experiences. However, the effect of the TSST on the histamine scratch remains inconclusive.