Project: Emotional regulation, cognitive performance, and autonomic control in rheumatoid arthritis

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The lifetime prevalence of rheumatoid arthritis is estimated at 1%; moreover, 17% of patients experience comorbid depressive disorders, such that the disease has a significant public health impact. This project is concerned with aberrances in autonomic control in rheumatoid arthritis in the context of emotional regulation and cognitive performance. Previous research suggested reduced parasympathetic control of heart rate in rheumatoid arthritis; further studies pointed toward greater sympathetic cardiac influences. Moreover, maladaptive emotional regulation strategies and impaired cognitive performance (e.g., in the domains of attention and cognitive control) have been documented in rheumatoid arthritis. Studies from experimental psychology suggested biased memory processes, reflected in selective encoding and decoding of pain-related information. In this project, psychophysiological methods (e.g., electrocardiography, impedance cardiography and continuous blood pressure recording) are used to comprehensively study autonomic control during emotional and cognitive processing in rheumatoid arthritis patients. This research topic is pertinent to both basic research and clinical practice. The results may facilitate the development of psychological interventions for maladaptive emotional regulation and biased information processing, and improve the cognitive control of patients with rheumatoid arthritis.

Previous publication from the project

Galvez-Sánchez, C.M., de la Coba, P., Colmenero, J.M., Duschek, S., & Reyes del Paso, G.A. (2021). Attentional Function in Fibromyalgia and Rheumatoid Arthritis. PLOS ONE (1): e0246128. doi: 10.1371/ journal.pone. 0246128