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The role of depression and anxiety in pain perception

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Abstract

Background: Depression and anxiety are associated with increased perception of pain severity. Because patients with a depressive disorder and anxiety often report pain, their sensitivity to experimental pain is controversial, probably due to differences in sensory testing methods and the lack of normal values.

Material and methods: The study was conducted on 140 selected subjects. The pain test was performed using a technique, called the submaximal effort tourniquet technique. Before the start of the study, a set of psychometric inventories and tests was prepared (visual analog scale, Beck Depression Inventory, Spielberger's State and Trait Anxiety Inventory).

Results: No differences in pain perception have been found in men and women as well as in relation to age, thus gender and age cannot be a predictor in pain perception. The anxiety has no effect on pain perception. The depression can be considered a predictor of pain intensity because a change in depression levels determines a change in pain intensity perception at the 3rd minute. If the depression category was changed from a patient with no depression to one with mild depression, pain intensity at minute 3 increased by approximately one point on the visual analog scale ($B=.954$, $CI95\% .200, 1.709$, $p=.014$).

Conclusions: Depression can be considered a predictor in the evolution of pain perception. Not so much the depression score, but the increase in the severity of depression can predict the evolution of pain perception.

Key words: anxiety, depression, pain, visual analog scale, pain test.

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