Peripheral and central sensitization in musculoskeletal pain disorders: an experimental approach.

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Abstract

This report provides a brief introduction to the manifestations of peripheral and central sensitization involved in musculoskeletal pain disorders. It has become increasingly evident that muscle hyperalgesia, referred pain, referred hyperalgesia, and widespread hyperalgesia play an important role in chronic musculoskeletal pain. A better understanding of the involved basic mechanisms and better methods to assess muscle pain in the clinic may provide new possibilities for designing rational therapies and for targeting the pharmacologic intervention optimally. Peripheral sensitization plays an important role for increased sensitivity of deep tissue. However, central sensitization may be equally important but less addressed. Quantitative sensory testing provides the possibility to evaluate these manifestations in a standardized way in patients with musculoskeletal pain or in healthy volunteers (eg, experimentally induced referred pain can be used to assess the potential involvement of central sensitization in musculoskeletal pain conditions). Central sensitization may play a role in the persistence, amplification, and spread of pain. Interventions should take this aspect into consideration.

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