

IGSN - SYMPOSIUM

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From Bench to Bedside: Advances in Understanding Chronic Pain

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Endogenous pain modulation and spinal nociception: assessment and treatment in the context of pain

Pain is a universal experience, yet this experience varies widely among and even within individuals. Due to internal (i.e., endogenous) pain relieving (i.e., inhibition) and pain enhancing (facilitation) strategies at the spinal cord and brain (i.e., supraspinal), our body is able to modulate pain transmission, consequently modulating the pain experience. In people who experience persistent pain without clear evidence of actual or threatened tissue damage, nociplastic changes in the central nervous system can lead to compromised endogenous pain modulation and enhanced spinal nociception which in turn will lead to enhanced pain sensitivity and sustained pain complaints. Psychophysical measures of endogenous pain modulation and spinal nociceptive processing (such the condition pain modulation paradigm or the nociceptive withdrawal reflex test) can be used to examine how people with persistent pain differ from healthy, pain-free persons and whether such differences can be resolved using treatment strategies. However, endogenous pain modulation and spinal nociception are susceptible to the influence of a variety of influencing factors. Consequently, when assessing pain, it is essential to consider these influencing factors, as they are crucial for refining and accurately interpreting psychophysical measures of nociception and pain processing and for the development of effective, individualized chronic pain management strategies. This presentation discusses the evidence for impaired endogenous pain modulation and spinal hyperexcitability in people with persistent pain and elaborates on research into individual factors which influence measures of endogenous pain modulation and spinal nociception and potential treatment strategies to improve pain modulation and reduce spinal nociception, with an in-depth focus on psychological and movement-related factors and treatment effects.

Host:

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