REVIEW ARTICLE

Current Understanding of the Neurobiology of Pain

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ABSTRACT

Pain is a complex and poorly understood phenomenon. Recent advances through clinical experience and experimental studies have revealed that afferent information does not become consciously known as pain through any simple or easily defined chains of neurones. There is also increasing scientific evidence showing that both short-term and long-term changes do occur within the peripheral and central nervous system following noxious input. This paper highlights the plasticity phenomenon in the pain system to facilitate our understanding of pain and hence the principles behind some of the more recent pain management concepts.

Key Words: Neurobiology, Pain, Pathophysiology, Physiological pain

中文摘要

疼痛神經生物學的現代概念綜述
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疼痛是一種複雜而又難理解的現象。最新的臨床經驗和實驗研究結果顯示，傳入神經的訊息並不單是由任何簡單或容易界定的關鍵神經單位而令我們感到痛楚的。越來越多的科學證實亦同時顯示經過有害的神經訊息輸入後，短期及長期的改變同時出現在末梢及中央神經系統裏。本文旨在提出神經系統中的成形性現象以令我們對痛楚及其原理作出深入理解，從而領悟出最新的疼痛治理。