

SPECIAL ISSUE: Chronic Neuropathic Pain (Part 2)

NeuroRehabilitation 2000;14(2)

Introduction

We are pleased to introduce this second volume on chronic neuropathic pain to the journal readership. We feel that the articles will expand the foundation already laid in the prior thematic issue. The authors for this issue come from diverse backgrounds but share a common denominator of being practicing clinicians who treat chronic neuropathic pain on a daily basis.

Nicholson introduces this special issue by providing a critical overview of the area of chronic pain with suggestions for important directions for research and treatment in the future. Specifically, he prescribes a deeper exploration of the interface between psychosocial and biological components, or the neurobiological substrate mediating psychological effects or brain-behavior relationships involved in chronic pain. Importantly, this overview, written from the perspective of a psychologist working in a tertiary care chronic pain program, describes a method to assist in the differentiation of central from peripheral and organic from psychosocial components and outlines a novel neuropsychobiological model.

Gonzales, Martelli and Baker employ a biopsychosocial conceptualization in providing an overview of a method and approach for psychological evaluation of patients with chronic pain. Because of the variability in pain related outcomes, a multidimensional assessment approach seems essential. This article provides a practical introduction and summary of numerous instruments which complement a psychological assessment conducted within a multidimensional framework.

Kirsch, one of the pioneers of microcurrent stimulation, along with Smith, review applications of cranial electrical stimulation for chronic pain management. For pain management practitioners, this article will serve to increase awareness of the existence of a non-medication treatment for reduction of pain in chronic pain patients that is effective and also inexpensive, safe and easy to use. Notably, the authors build a case of strong support for what appears to be a safe and effective treatment for pain, especially chronic pain and its associated symptomatology of anxiety, depression and insomnia.

Nicholson, in a survey of the literature concerning the relationship of pain, cognition and traumatic brain injury, notes that cognitive difficulties are common in acute or chronic pain, independent from any possible TBI. Attention, memory, speed of processing, and executive control seem most affected. Implications for neuropsychological assessment and differential diagnosis in cases of mild TBI are mentioned. Further, it is suggested that pain and related problems may account for most of the difficulties in those presenting with the persisting post-concussive syndrome. Finally, it is noted that there also appears to be considerable variability in the nature and magnitude of cognitive difficulties associated with pain and that it is unclear to what degree cognitive difficulties might be due to disruptive or interfering effects of

pain versus associated problems such as fatigue, depression, anxiety, medication side effects, or other factors.

Martelli, Liljedahl, Nicholson and Zasler provide an introduction to Internet resources germane to chronic pain and its management. Rudimentary guidelines for efficient accessing of information are offered, along with nearly 200 useful links for professionals, patients, family members and other interested persons who assess, treat or cope with chronic pain. Relevant resources include numerous organizations, medical, psychological assessment and practical treatment strategies, assessment and treatment reviews, support groups, list serve groups, advocacy resources, news and assistive technology resources.

Michael F. Martelli, Ph.D.

Nathan D. Zasler, MD

ARTICLES:

At the Crossroads: Pain in the 21st Century

Keith Nicholson

Nicholson introduces this special issue by providing a critical overview of the area of chronic pain with suggestions for important directions for research and treatment in the future. Specifically, he prescribes a deeper exploration of the interface between psychosocial and biological components, or the neurobiological substrate mediating psychological effects or brain - behavior relationships involved in chronic pain. Importantly, this overview, written from the perspective of a psychologist working in a tertiary care chronic pain program, describes a method to assist in the differentiation of central from peripheral and organic from psychosocial components and outlines a novel neuropsychobiological model.

ABSTRACT

This paper, written from the perspective of a psychologist working in a tertiary care chronic pain program, presents an overview of chronic pain with suggestions as to what may be important directions for research and treatment in the future. It is suggested that the monumental problem of chronic pain needs to be better appreciated, that both biological and psychosocial factors contributing to presentation need to be better understood, and that the most fruitful avenue of research may be an exploration of the interface between psychosocial and biological components, i.e., the neurobiological

substrate mediating psychological effects or the nature of brain - behavior relationships involved in chronic pain. A method to assist in the differentiation of central from peripheral and organic from psychosocial components, and the outline of a novel neuropsychobiological model are described.

The Use of Cranial Electrotherapy Stimulation in the Management of Chronic Pain: A

Review Daniel L. Kirsch,^a Ray B. Smith^b

Kirsch (one of the pioneers of microcurrent stimulation) reviews applications of cranial electrical stimulation for chronic pain management. For pain management practitioners, this article will serve to increase awareness of the existence of a non-medication treatment for reduction of pain in chronic pain patients that is effective and also inexpensive, safe and easy to use. Notably, Kirsch builds a case of strong support for what appears to be a safe and effective treatment for pain, especially chronic pain and its associated symptomatology of anxiety, depression and insomnia.

ABSTRACT

Cranial Electrotherapy Stimulation (CES) has a growing history of applications in rehabilitation medicine in the United States dating back to early 1970. As a recognized non-drug treatment of anxiety, depression and insomnia, CES gained its first major application in the field of addiction treatment and rehabilitation. By the mid 1980s research was showing additional important uses of CES in the treatment of closed head injured patients, and in paraplegic and quadriplegic patients. The most recent research is showing CES to be highly effective in the management of chronic pain patients. It may be elevating the pain threshold due to its stress reducing effects when anxiety and depression are reduced below clinical levels. Modern theorists of a pain neuromatrix in the cerebral cortex may provide an additional basis for understanding CES mechanisms in the control of pain related disorders.

Psychological Assessment of the Person with Chronic Pain

Gonzales, Martell and Baker

Gonzales et al employ a biopsychosocial conceptualization in providing an overview of a method and approach in evaluating patients with chronic pain. Because of the variability in pain related outcomes, a multidimensional assessment approach seems essential. This article provides a nice introduction and summary of numerous instruments which complement a psychological assessment conducted within a multidimensional perspective.

ABSTRACT

Chronic pain is one of the most prevalent and costly health care problems and variability is the rule more than the exception in terms of pain related outcomes. Clearly, psychological factors such as depression, anxiety, post traumatic stress, excessive somatic thoughts and a variety of psychiatric syndromes are recognized as actively contributing to a patient's perceptions and responses to pain and can represent significant potential impediments to functioning and optimal health care outcome. As a result, it is becoming increasingly common, and even required by many programs, for individuals who seek treatment for pain to undergo a comprehensive assessment that evaluates not only their medical findings, but also beliefs about their condition, coping strategies, psychological adjustment, activity level and quality of life. Psychological assessment instruments that provide information about a person's physiological, behavioral, and cognitive-affective functioning in terms of vulnerabilities and strengths can be a valuable tool for treatment providers. In the present paper, a biopsychosocial conceptual model is employed to provide an overview of a method and approach in evaluating patients with chronic pain, toward the goal of facilitating optimal outcome and management of pain syndromes.

A Brief Introductory Guide to Chronic Pain Resources On the Internet

Martelli et al provide a useful introduction aimed at enhancing utility of the Internet with regard to chronic pain and its management. Rudimentary guidelines for efficient accessing of information are offered, along with nearly 200 useful Internet web links for professionals, patients, family members and other interested persons who assess, treat or cope with chronic pain. Relevant resources include numerous organizations, medical, psychological assessment and practical treatment strategies, assessment and treatment reviews, support groups, list serve groups, advocacy resources, news and assistive technology resources.

ABSTRACT

The expanding Internet has become an increasingly valuable tool for world wide sharing of information. Health care professionals, patients, lay persons, family members and others are afforded instant access to masses of information and almost unlimited resources on virtually any topic, as well as an almost seamless vehicle for communication. This new medium offers tremendous implications for health care. However, the absence of a single clearinghouse, a single search procedure or guarantee of accuracy often make information access efforts challenging, confusing and frustrating. The present paper provides a brief introduction aimed at increasing appreciation of the Internet and enhancing its utility with regard to chronic pain and its management and offers rudimentary guidelines for efficient accessing of information. Finally, it presents the results of a comprehensive search including nearly 200 useful Internet web links for professionals, patients, family members and other interested persons who assess, treat or cope with chronic pain. Identified resources include numerous organizations, medical, psychological assessment and practical treatment strategies, assessment and treatment reviews, support groups, list serve groups for patients and professionals, advocacy resources, news and assistive technology resources. Special emphasis is given to useful resources to assist

professionals treating persons with chronic pain, as well as resources that can assist persons challenged by chronic pain.

Pain, Cognition and TBI

Nicholson, in a survey of the literature concerning the relationship of pain, cognition and traumatic brain injury, notes that cognitive difficulties are common in acute or chronic pain, independent from any possible TBI. Attention, memory, speed of processing, and executive control seem most affected, and implications for differential diagnosis in cases of mild TBI are noted. It is suggested that pain and related problems may account for most of the difficulties in those presenting with the persisting post-concussive syndrome. Finally, it is noted that there also appears to be considerable variability in the nature and magnitude of cognitive difficulties associated with pain and that it is unclear to what degree cognitive difficulties might be due to disruptive or interfering effects of pain versus associated problems such as fatigue, depression, anxiety, medication side effects, or other factors.

ABSTRACT

There has been considerable controversy concerning the problem of the persisting post-concussive syndrome and whether cognitive or other sequelae might be attributed to the effects of brain injury or other causes. Headache is the predominant problem in virtually all surveys of the post-concussive syndrome. It is suggested that pain and related problems may account for most of the difficulties in those presenting with the persisting post-concussive syndrome or other cases in which mild to moderate brain injury is suspected. A survey of the literature concerning the relationship of pain, cognition and traumatic brain injury indicates that cognitive difficulties are common in acute or chronic pain, with or without any indication of brain injury. However, numerous methodological problems are apparent and there is clearly need for further study. Consideration is given both to psychosocial and neurobiological effects underlying any such relationships.