

Book Reviews

A World of Pain

Lance M. McCracken, Ph.D.

A Review of the Proceedings of the 7th World Congress on Pain

Edited by Gerald F. Gebhart, Donna L. Hammond, and Troels S. Jensen
Published by IASP Press, Seattle, 1994,
933 pages, \$65.00

The 7th World Congress on Pain was the largest meeting to date of the International Association for the Study of Pain. More than 1600 papers were presented at this meeting, 62 of which were selected for presentation in the proceedings. It is difficult to determine whether a representative sample was selected, but a broad array of papers obviously was sampled. The variety of variables, methods, and findings presented in this volume clearly shows that the field of pain research has expanded substantially in recent years. In his paper, Jean-Marie Besson referred to the last 25 years of research devoted to the pharmacology of pain with the terms *hope, despair, and hope*, which, I believe, also captures the sentiment one feels while reading this volume.

This book makes an important contribution because, as the record of a large scientific meeting, it establishes a benchmark or guideline. It brings desperate approaches to the study and management of pain into close proximity for a moment, helps to foster helpful interaction of ideas, and establishes the priorities for future research. Readers interested

in pain are likely to benefit from this volume in several ways. If you are behind in your reading within your own specialized portion of the pain literature, this book will help you remediate to a certain degree. Perhaps more importantly, this book provides the opportunity for exposure to the portions of the pain literature that do not fall directly within your usual area of study. I think that the greatest benefit will come from the degree to which you are aided in your thinking, speaking, and inquiring about the clinical or basic work of your colleagues. I can attest to this benefit by pointing to the many times I have referred, lent, or photocopied portions of this volume for my colleagues in Psychiatry and Anesthesia during the short time I have had my copy.

There are a number of limitations to this volume, but to a degree these are characteristic of any conference proceedings. This is a volume that will be read one paper at a time. Although there was an attempt to group related papers together, the topics within these groups nonetheless appear dissimilar. You may not read an entire section of interrelated papers and you are unlikely to read the entire volume. Because these papers were not written to appear together, they are not integrated and there is no discussion that helps combine findings or conclusions across related papers. Also, there is no overall summary of the volumes by the editors to help the reader distill important themes and understand the current state of pain research in broad terms. The two-page preface is inadequate to this task. The other inevitable result

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of this selective presentation of papers is that many will find that some important, new basic and clinical developments in their particular area of pain are conspicuously absent.

This lengthy volume is divided into 12 sections: Introductory Remarks, Special Lectures, Psychological Factors Related to Chronic Pain, The Nociceptor as a Dynamic Entity, Central Nervous System Plasticity: Implications for Pain Perception, Neuropathic Pain, Opioids and Analgesia, Pharmacology of Pain Control, Headache, Central Pain, Nociceptive Processing, and Pain and Age. Not all topics are covered equally. The section on central nervous system plasticity, the main theme of the meeting, includes 10 papers and the section on headache only two. However, I believe that the broad areas of pain study pharmacology, neurology, physiology, and psychology are covered fairly equally. Interested readers will find treatment of both clinical and basic concerns and papers that focus on all levels of analysis from genes, receptors, neurons, and nerves to joints, blood vessels, and patient behavior.

Among the many areas discussed, several examine pain at the behavioral level, emphasizing the complexity and challenges of clinical management of persons with chronic pain disorders. A paper by Michael VonKorff highlights the importance of moving our management efforts to primary care settings. Using low back pain as the focus of his discussions, he introduces data suggesting that (a) most persons with pain seek service in primary care settings, (b) back pain may run a chronic or recurrent course more often than we have assumed, and (c) primary care providers appear to apply deficient pain management strategies in many cases. VonKorff presents a number of behavioral principles to guide routine medical care for back pain, with the goal of reducing reliance on specialty care and attendant costs. These recommendations include emphasizing patient education, limiting expectations for medical cure, prescribing rest and analgesic use time-contingently, and encouraging increased function. Stephen Linton's paper on prevention of chronic musculoskeletal pain nicely emphasizes and complements the concerns raised by VonKorff.

Plasticity of the nervous system in response to insult was the main theme of the 7th World

Congress on Pain. Of course, this theme influenced the selection of papers. For example, in their paper, Robert Schmidt et al. point out several interesting new findings concerning the diverse and dynamic nature of nociceptors. In their studies of the knee joints of the rat and cat, they have shown that inflammatory processes lead to a number of changes in the functions of afferent fibers, including sensitization of previously high-threshold nociceptive afferents and induction of mechanosensitivity in units with no previous movement-induced sensitivity. Papers by Götz Beylich and William Willis show that application of painful stimulation or damage to peripheral nerve tissues can give rise to changes in the central nervous system, such as reorganization or sensitization of cells in the dorsal horn of the spinal cord. These changes may underlie such phenomena as hyperalgesia and allodynia. In a later paper, Kathleen Sluka et al. present data demonstrating a contribution of central neuronal networks to the development of joint inflammation, suggesting new paths for preemptive treatment. Howard Fields and Michael Rowbotham nicely describe recent advances in the management of neuropathic pain. They note that many persons with neuropathic pain may have hyperactive and dysfunctional primary afferent nociceptors. These writers also describe guidelines for usual therapies for neuropathic pain and indicate that newer more specific therapies appear imminent.

To add to the list of findings likely to be surprising to some, Anthony Dickenson discusses data showing that opioid actions are not fixed, but are modifiable by other physiological states. For example, opioids have no active receptor sites in undamaged cutaneous locations. However, it appears that the onset of inflammation changes that situation, leading to the rapid production of peripheral sites for opioid action and, therefore, analgesic effects of opioids outside of the central nervous system. Findings described in this paper appear to provide the basis for improving therapies consisting of opioids in combination with other agents, a topic that is discussed further in a paper by Mitchell Max. Other papers discuss ethical concerns, quality assurance, reflex sympathetic dystrophy (RSD), serotonergic mechanisms of pain control, NSAIDs for can-

cer pain, preemptive analgesia, central pain, pain in children, and pain in the elderly.

Overall, this volume gives one the impression that researchers are on the brink of finding new ways of explaining why persons with pain behave the way they do, new avenues toward the prevention of chronic pain, and new, more effective pharmacological agents to control pain; thus, there is reason for hope. Advances in applications of new pain therapies may soon move ahead more dramatically, as the basic research has for many years. As a mere subset of the many papers presented at the World Congress, this volume presents an impressive view of the diverse international efforts along these lines. In sum, we are fortunate to have this volume available and interested persons are likely to benefit from a careful reading.

Comprehensively on Sensory Complexities

Jan Persson, M.D.

*Touch, Temperature, and Pain in Health
and Disease: Mechanisms and Assessments*

Edited by Jorgen Boivie, Per Hansson,
and Ulf Lindblom

Published by IASP Press, Seattle 1994,
548 pages, \$69.00

The progress in pain research and management is extensive and rapid in many of the various fields related to these issues. The International Association for the Study of Pain publication series called exactly that (*Progress in Pain Research and Management*) is, therefore, a welcome aid to the pain-clinician engaged in patient work and clinical research. The third volume in the series, titled *Touch, Temperature, and Pain in Health and Disease: Mechanisms and Assessments* has now appeared. The contents are the proceedings of an international sym-

posium held at the Wenner-Gren Center in Stockholm, Sweden, October 6-9, 1993, edited by Jorgen Boivie, Per Hansson, and Ulf Lindblom.

Proceedings from a symposium are, of course, not a textbook and, with so many different authors and a subject matter drawn from so many scientific areas, the task of arranging a coherent presentation of the different contributions is admittedly not a simple one. For the general reader, not a specialist in the field, the lack of didactic structure, however, is probably the greatest drawback of the book. There are overlapping and parallel presentations where the relationships and roles, in general theory and practice, of the different theoretical constructs and methods are not clear. Even though an objective theoretical platform from which to view the different contributions may not exist, I believe the book would benefit from an attempt at an overview and positioning of the presentations.

The structure that can be found in the book is a division into five parts: I, Basic and Applied Psychophysics; II, Quantitative Sensory Testing in Health and Disease; III, Peripheral and Central Mechanisms of Sensitization; IV, Models of Sensory Alterations and Their Assessment; and V, Central Processing.

Psychophysics is central to all clinical and scientific activities that rely on reported perceptions. Notwithstanding this important role, psychophysical problems and pitfalls are often not attended to in clinical practice or research. To my mind, therefore, the first part of the book is perhaps the most essential. The traditional scaling methods, including suprathreshold direction magnitude scaling, are comprehensively presented in two chapters, perhaps with a somewhat confusing disposition. In a provocative presentation, W. Crawford Clark advocates a more widespread use of Sensory Decision Theory (SDT). Sensory Decision Theory is an application of the general mathematical model known as Statistical Decision Theory to sensory measurements. He thus provides another illustration of the immense complexity of human sensory experience and how sophisticatedly it can be analyzed. The clinical relevance of models such as SDT, however, is not presented, but is discussed by Ulf Lindblom who, in his chapter on abnormal sensation, also points out the lack of a one-to-