idealistic new radiologist in town is more interested in what he'll be paid than in what he can do for people. Most of us can identify better with a sympathetic character who's drawn almost unwittingly into something bad. Even Macbeth, for example, starts off with some admirable qualities before the witches, his wife, and his own ambition catch hold of him.

The first half of the novel could have been drastically shortened as we get off to quite a slow beginning. The action is often interrupted by detailed descriptions of neuroradiological procedures on patients we usually never meet again. The story does become a page-turner in the second half as the scheme inevitably begins to fall apart. Armstrong is supposed to be devoted to his daughter and she's a motivation for his wanting to make more money. However, we hardly meet her in the novel and never even get a scene where father and daughter actually have a conversation to convince us that he gives a damn about anything but cash.

Lay readers will learn about neuroradiology and the brain, but unfortunately, they'll also leave this novel with the impression that physicians are money-hungry monsters who'll stop at nothing including murder. Early John Grisham novels make better airplane reads but "Locked In" is worth a look and I have a feeling that there will be better things to come from Mike Esposito.

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CENTRAL PAIN SYNDROME: PATHOPHYSIOLOGY, DIAGNOSIS AND MANAGEMENT. 2007. By Sergio Canavero, Vincenzo Bonicalzi. Published by Cambridge University Press. 382 pages. Price C$95.

Throughout the last century, central pain was regarded as an enigma – the pain mechanisms were virtually unknown and effective treatments were lacking in the vast majority of patients. The introduction to this book states that the authors "turn the concept of central pain on its head, providing a rational approach to therapy based on scientific theory". Canavero, a neurosurgeon, and Bonicalzi, a neuroanesthesiologist, only partially succeed in this task.

The authors provide probably the most complete reference source on central pain that has ever been assembled. The history of central pain going back almost two hundred years, the clinical phenomenology and the proposed pathophysiology, diagnosis and treatment are all presented in a most readable fashion. There are pages of tables that nicely summarize all of these areas.

It is clear that central pain can arise from damage to any part of the central pain pathway from the spinothalamic tract to the thalamus to the parietal cortex. However, beyond that, there is little consensus despite the best arguments of the authors. Based on evoked potential studies, functional imaging, magnetic resonance spectroscopy and microelectrode recordings, the authors posit that central pain arises from an imbalance in the normal reverberation loop between the thalamus and parietal cortex (especially the primary somatosensory area). The end result is a form of central sensitization due to hyperactivity in both the thalamus and cortex. There is some support for this theory in that there are rare reports of central post-stroke pain being abolished by a further stroke involving the subcortical white matter although the authors agree that neurodestructive lesions are rarely helpful in management. They further propose that a deficiency of GABA-A activity at the corticosensory level provides the major neurochemical substrate responsible for central pain. Propofol is a recently introduced intravenous anesthetic that has GABA-A enhancing properties and the authors have published two randomized, controlled trials totaling 60 patients showing overall benefit from subanesthetic doses of propofol in central pain syndromes versus placebo. They further recommend extradural cortical stimulation as a definitive treatment for intractable cases, but only if the patient is propofol responsive. The problem, of course, is that a substantial number of patients with intractable central pain do not respond to cortical stimulation whether they are propofol responsive or not. In addition, there are no randomized, controlled trials to support the role of cortical stimulation in the management of central pain.

Canavero and Bonicalzi are to be congratulated for their exhaustive study of central pain syndrome. They provide a solid foundation for further studies that will take us beyond the enigma of central pain and more into the reality of definitive pathophysiology and treatment.

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MOVEMENT DISORDERS IN CHILDREN: A CLINICAL UPDATE WITH VIDEO RECORDINGS. 2007. Edited by Nardo Nardocci, Emilio Fernandez-Alvarez. Published by John Libbey Eurotext. 192 pages. Price C$86.

Advanced in our understanding of the pathophysiology of movement disorders in childhood has been increasing at a rapid rate. Yet, there are few good comprehensive up-to-date reference books available for the pediatric neurologist. According to the back cover of the book, this monograph was written to fill this gap.

The book was a multi-authored, edited book with accompanying illustrative DVD. The first five chapters give a general overview of the terminology, seminology, genetics, neurophysiology, imaging and method to quantitatively evaluate the severity of the disorder. The next 12 chapters are disease specific covering topics such as primary dystonia, myoclonic-dystonia, dopa-responsive dystonia, pantothenate kinase deficiency, Sydenham's Chorea, opsoclonus myoclonus, Rett's syndrome, rapid onset juvenile parkinsonism, alternating hemiplegia,

The strength of this monograph lies in the disease specific chapters, particularly the chapters dealing with primary dystonia, dopa-resistant dystonia, Rett's Syndrome and Sydenham's Chorea. These chapters are well written and contain evidence based reviews of the literature intermixed with the author's personal experience.

Although the book was short and concisely written covering the main topics, it was poorly edited- resembling a series of individual papers on the topic rather than a cohesive book. An index and introductory chapter were absent. The quality between chapters varied greatly. Chapters were often based on personal experience

rather than critical review. The inclusion of a DVD demonstrating the various movement disorders was a good idea; however, again the quality of the videos and written description varied greatly between chapters.

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AO Spine Manual. Principles and Techniques (Volume 1). Clinical Applications (Volume 2). DVD-ROM. 2007. By Max Aebi, Vincent Arlet, John K. Webb. Published by George Thieme Verlag. 1300 pages. Price C$640.

The AO Spine Manual is a comprehensive two volume set compiled by three editors and over 50 authors from the AO Spine Group. This publication represents a huge amount of information collected from many of the world's leaders in spinal surgery. Volume 1 is dedicated to an overview of spinal biomechanics, basic bone biology, surgical anatomy, and instrumentation techniques. Volume 2 consists of a systematic review of disease processes affecting the spine and the surgical treatments available. The DVD contains text and illustrations chapter by chapter from both volumes, as well as a number of videos depicting surgical techniques.

These books have numerous high quality illustrations in each chapter that include color intraoperative pictures, color pathology slides, colored drawings, and radiological images demonstrating preoperative, intraoperative and postoperative data. The intra-operative video clips are crisp and largely free of blood contamination. These graphic aids greatly enhance the reader's learning experience. In addition, Volume 2 systematically addresses common spinal problems through clinical case presentations. This is a unique approach for a text book and makes this publication a much more interactive learning experience.

Two major limitations pertain to (1) a focused musculoskeletal approach to spinal disorders, and (2) the AO affiliation with Synthes. While appropriate for discussions about rods and screws, the musculoskeletal ("bones-only") approach precludes any attempt to examine neuroanatomy, neurophysiology, and neuropathology of the spine. Hence, for example, the finer diagnostic and prognostic significances of radiculopathy and myelopathy are completely ignored. Important considerations to spinal surgeons such as spinal cord injury and cauda equina syndrome cannot be found. In addition along these more traditional musculoskeletal lines, biomechanics and biology sections focus primarily on the lumbar spine ignoring issues specific to the cervical spine.

Other more specific concerns were noted with respect to neurological issues. We were surprised how the editors and Dr. PW Pavlov (Netherlands) chose to depict cervical vertebrectomy in the setting of myelopathy. First, the reader should note that cervical spondylotic myelopathy is a clinical diagnosis based on a constellation of predominantly upper motor neuron signs and symptoms. It is not a radiographic diagnosis. Second, as depicted in the video clip, the use of an osteotome and hammer to remove bone from the anterior cervical spine should not be considered an appropriate surgical technique. In viewing the video it is immediately apparent what magnitude of force from these blows is being directly transmitted to an already insulted, fragile, and compressed spinal cord under direct bony contact. Given the availability and safety of high speed drills and intra-operative magnification for use in this setting, precipitation of a new neurological deficit by osteotome impaction is (in our opinion) medically indefensible - at least in North America.

Also, with respect to complications in spine surgery and management of perioperative spinal cord injury, the reader should be aware that there is absolutely no evidence that methylprednisolone has a beneficial effect on outcome in this setting. The authors apparently make inferences from controversial traumatic spinal cord injury studies, despite the known harmful side effects of this drug in high doses. In our opinion the recommendation of methyl-prednisolone administration according to NASCIS II doses as a prophylactic neuroprotective agent in high risk procedures is irresponsible.

The relationship between Synthes and AO is not properly disclosed within the text. Yet because of this relationship only Synthes instrumentation and techniques are presented and discussed. It will be clear to the reader that no single instrumentation company can provide perfect solutions to all spinal problems. Yet unabashedly product-specific (Synthes) brand names are widely quoted in almost all of the techniques chapters. This inherent bias is a serious limitation significantly restricting the scope of this two volume set to any person who wishes to have a broader overview of products in the spine industry.

The reader will also realize that much of the text is based on traditional AO concepts without regard to the field of spinal surgery as a whole. For example classification of thoraco-lumbar fractures is detailed only through the cumbersome AO system, one not widely utilized today for obvious reasons.

In conclusion as a "nuts and bolts" textbook the AO Spine Manual goes a long way to providing both the novice and accomplished spine surgeon with valuable information on current state-of-the-art surgery techniques and technology. The authors and editors should be congratulated on the interactive case-based format of many of their chapters. However, as the definitive treatise on spinal surgery this publication falls far short of other less biased texts that are currently readily available. In our opinion it would be far more appropriate for this two volume set to be called the "AO/Synthes Spine Monogram".

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The Brain Atlas: A Visual Guide to the Human Central Nervous System. Third Edition. 2008. By Thomas A. Woolsey, Joseph Hanaway, Mokhtar H. Gado. Published by Wiley. 254 pages. Price C$66.

This neuroanatomy textbook is the very successful outcome of a collaboration among an anatomist, a neurologist and a neuro-radiologist. The book is divided into five parts. In Part 1, in only 13