

DEJONG'S THE NEUROLOGIC EXAMINATION. 2005. Sixth edition. By William W. Campbell. Published by Lippincott, Williams & Wilkins. 671 pages. C\$140 approx.

It has been 13 years since the last edition of this classic appeared and some might question the need for a new textbook on the neurologic examination in this age of hypertechnology in which the stethoscope is used less and less and ophthalmoscopy, except among ophthalmologists, is becoming a lost art. Neurologists are used to their neurosurgical colleagues quipping, half in fun and all in earnest, that an MRI scanner is worth a roomful of neurologists. We in Neurology, on the other hand, find more and more that the art and science of Neurology begins when the CT or the MRI are "negative". As William Campbell states in his Preface to this edition: "There is no shortage of examples of how the neurologic examination fills a void that imaging and other laboratory tests cannot. Who but the clinically skilled neurologist can make the diagnosis of such conditions as restless legs syndrome, exploding head syndrome, one and a half syndrome, corticobasal degeneration, epilepsy partialis continua, trigeminal sensory neuropathy, deep palmar ulnar neuropathy, subacute combined degeneration, hereditary spastic paraplegia, pseudotumor cerebri, or adrenomyeloneuropathy? Who but the clinically skilled neurologist can make a virtually instantaneous diagnosis of myasthenia gravis by listening to the patient talk, or facioscapulohumeral muscular dystrophy by watching the patient walk, or Parry-Romberg syndrome with a glance at the face?"

The book is divided into 13 sections. Section B begins with a brief overview of the nervous system and then moves into taking the neurological history. There are 13 very nice tables that stress the specific historical aspects that need to be considered in patients with a variety of common clinical disorders—e.g. chronic headache, hand numbness, suspected TIA, dizziness, memory loss, and loss of consciousness to name only a few. I was pleased to see that the book still contains a section on the general physical examination. My former mentor, Henry Barnett, used to stress that a good neurological examination always begins with a careful general physical examination. The sections *The Neurologic History* and *The General Physical Examination* are followed by one titled *General Outline of the Neurological Examination*. This chapter includes a "screening" neurological examination that could be considered a "minimal necessary" in patients admitted to a general medical service or what might be taught to medical students.

I found the book to be well illustrated with clear diagrams and good pictures and it is well referenced. There is a good index that allows one to look up named "signs" and "tests" and find them in the text. This book is most useful for residents in Neurology or Neurosurgery to have on their shelf to read when they want to look up a particular sign or when they want to "brush up" on a particular aspect of the neurological examination. The same could be said for the practicing neurologist. While there are some differences between the fifth and sixth editions, I do not think there are enough that they would make me run out and purchase the latest volume if I already had a copy of the last.

This is not a book that lends itself to being an introduction to the examination of the nervous system for use by medical students, off-service residents or the neophyte neurological/neurosurgical resident. For those interested in a short readable text of that type,

they could be very well-served by picking up a copy of Sir Gordon Holmes' classic *Introduction to Clinical Neurology* (now out of print but available in various editions on the Internet from used book dealers)—still a very useful work in this author's estimation.

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ENDOSCOPIC SPINE SURGERY AND INSTRUMENTATION - PERCUTANEOUS PROCEDURES. 2005. Edited by D.H. Kim, R.G. Fessler, John J. Regan. Published by Thieme Medical Publishers, Inc. 404 pages. C\$204 approx.

In recent years, the advent of better endoscopes, image guidance techniques, and innovative methods of internal fixation / spinal fusion have collectively led to a widespread interest in minimally invasive spine surgery. The spectrum of what is possible to achieve through percutaneous or "mini-open" procedures is nothing short of astonishing. This book summarizes well the remarkable advances that have taken place in this field: from simple percutaneous cement augmentation of the vertebral body (vertebroplasty) to multilevel scoliosis correction and fusion procedures. As these techniques proliferate, a simultaneous need for a comprehensive reference has developed.

Drs. Kim, Fessler and Regan should be congratulated for producing such a timely text. It is colorfully illustrated. The language and tone is straightforward, and each chapter is presented in nicely subdivided sections.

Some of the techniques illustrated in this book have already achieved widespread acceptance. For other procedures, it is perhaps only a matter of time. As more surgeons begin to climb the learning curve necessary to perform percutaneous microdiscectomy and minimally-invasive interbody fusion, the general adoption of less commonly performed surgeries is almost certain to follow.

The text is divided anatomically, beginning with a chapter on endoscopic-assisted transoral odontoidectomy and moving down to the lumbosacral junction. There are also sections on percutaneous procedures (vertebroplasty, kyphoplasty, nucleoplasty), image-guided techniques, and robotic endoscopic spine surgery. I found the chapter on robotics particularly interesting. It is not difficult to imagine a future where robots will be able to perform precise automatic placement of internal fixators.

There are also chapters that provide an overview of the equipment necessary to perform endoscopic spinal surgery and discuss the anesthetic considerations and operating room setup. An introductory chapter reviews the history of minimally invasive spine surgery, much of which is not particularly "historical", as many crucial technological developments have occurred within the last five years.

The problem with textbooks in general, and especially those that attempt to summarize such a rapidly developing field, is that they age quickly. At least one surgical technique presented in this book (intradiscal electrothermal therapy) has already fallen out of general favor, based largely on a randomized trial that showed little effect

relative to sham surgery.¹ The most recent references cited are a couple of years old. However, the basic surgical techniques described in most chapters will likely remain relatively unchanged for a few years. Hopefully, revised editions can be produced on a regular and timely basis.

The repertoire of the spinal surgeon is expanding. Minimally invasive spine surgery is here to stay. This text is an invaluable reference for all spine surgeons to understand these procedures and to begin to utilize them.

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REFERENCE

1. Pauza KJ, Howell S, Dreyfuss P, Pelozo JH, Dawson K, Bogduk N. A randomized, placebo-controlled trial of intradiscal electrothermal therapy for the treatment of discogenic low back pain. *Spine J* 2004; Jan-Feb 4(1):27-35.

ATLAS OF NEUROLOGIC DIAGNOSIS AND TREATMENT. 2005. By R. Douglas Collins. Published by Lippincott Williams & Wilkins. 179 pages. C\$76 approx.

The following quote is taken from the preface.

“There is a need for a book that will simplify neurology and make it possible for the primary care clinicians to diagnose and treat patients with neurological conditions – a book that will heighten the awareness of non-neurologic specialists to these diseases. Atlas of Neurologic Diagnosis and Treatment is aimed at fulfilling this need.”

It then goes on to say the following:

“In order to achieve this goal, the author has adhered to the following principles:

1. Diseases are colorfully illustrated on easy to understand neuroanatomical drawings.
2. Diseases are brought to life by case reports picturing the salient features of each disease.
3. A synopsis of etiology, diagnosis and treatment accompanies each report.
4. The differential diagnosis of neurological symptoms and signs is addressed and arranged in alphabetical order for easy reference.
5. Diagnostic tests that may be ordered for each disease are listed in Appendix B.
6. Treatment of each disease is addressed in Appendix C for easy reference.
7. Rare diseases, controversial diagnostic procedures, and treatment are omitted, but the reader is referred to excellent references for further study of these objects.”

The cover of the book is very attractive and immediately catches the eye. Similarly, as I quickly scanned the pages, I noted very nice illustrations. I, thus, began my review with considerable enthusiasm.

Unfortunately, as I read the text, my enthusiasm began to decline and after completing the reading I had to conclude that I could not recommend this book to other readers, and especially not to the audience it was intended for – the primary care clinician. What follows are the main reasons for this conclusion with examples.

I would assume that when the author talks about case reports “picturing the salient features of a disease”, he would be referring to typical presentations. That being the case, choosing to illustrate diseases like multiple sclerosis by sudden onset of symptoms (page 104), ALS is a 34 year old (page 85) and myotonic dystrophy in a 40-year old with symptoms for only several months (page 101) are all poor choices. Some of the statements of fact are just incorrect (narcotics as a cause of a dilated pupil – page 59); important things are left out (for example – there is no mention of assessing visual acuity when describing how to assess the second cranial nerve - page 49 or tone when describing how to do the motor exam – page 50; and some very unusual treatments are recommended (injection of boiling water into the maxillary or mandibular branches of the trigeminal nerve for the treatment of trigeminal neuralgia – page 22).

Although this book is not supposed to be concerned with rare disease, repeatedly reference is made to rare conditions such as poliomyelitis, general paresis, Wilson’s disease, manganese intoxication, tabes dorsalis, porphyria, and periarteritis nodosa.

I would not consider listing temporal arteritis, as one of the “Treatable Diseases to be Ruled Out” in a patient who is 36-years old and who presents with a history suggestive of subarachnoid hemorrhage to be a useful suggestion – page 156. Similarly, in considering the cause of a dilated pupil it states that if there is associated eye pain then one of the things you need to consider is Wernicke’s encephalopathy – page 59. Again I would not consider this to be a helpful suggestion.

In several of the cases of spinal cord tumor – pages 111 to – 114, the CSF protein is reported. This might suggest to the non-neurologist that this would be an important investigation to do in a patient with a suspected spinal cord tumor. Current neurological practice would say that doing a lumbar puncture in a patient with a suspected spinal cord tumor would be contraindicated in most instances because of the potential for causing post-LP neurological deterioration.

Finally, in my opinion, many of the symptoms listed in the Section Titled “The Differential Diagnosis of Neurological Symptoms” are not primary neurological symptoms at all (for example anxiety, depression, back pain, hoarseness, neck pain, photophobia, eye pain, hip pain, tinnitus and sleep apnea). I would think that this section would have been more accurately labeled had it been called The Differential Diagnosis of Symptoms Which May Have a Neurological Cause.

In the last paragraph of the preface the author thanks the publisher for their assistance “in making my dreams a reality”. My review may therefore be perceived as somewhat of a nightmare.

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