Spinal Disorders: Fundamentals of Diagnosis and Treatment

N. Boos and M. Aebi, eds. Springer; 2008, 1166 pages, 1740 illustrations, \$449.00.

In a book of 1166 pages, Drs. Boos and Aebi have edited a multiple-authored (55 authors predominately from Switzerland) text that attempts to cover the entire discipline of spinal disorders. Because nearly all radiologists deal with spinal imaging on a routine basis, it is of benefit to have at hand nearly all of the clinical/surgical issues one encounters, complemented by many line drawings, appropriate imaging, and extensive tables. Although some areas may be a bit cursory, the reader quickly gets a sense of all aspects of spinal disease: the clinical presentations; the imaging; and treatment, both surgical and nonsurgical.

There are 11 major sections of the book: History of Spinal Disorders, Basic Science of Spinal Disorders (biomechanics, instrumentation, age-related changes of the spine, pathway of spine pain, epidemiology and risk factors in spinal disorders, predictors of surgical outcomes), Patient Assessment (history/physical examination, imaging studies, spinal injections, neurologic assessment in spinal disorders, neurophysiologic investigations), Surgical Approaches, Peri and Postoperative Management (preoperative assessment, intraoperative anesthesia management), Degenerative Disorders (degenerative disorders of the cervical spine, disk herniation and radiculopathy, lumbar spine stenosis, degenerative lumbar spondylosis, nonspecific back pain, postoperative rehabilitation), Spinal Deformities and Malformations (idiopathic scoliosis, neuromuscular scoliosis, congenital scoliosis, degenerative scoliosis, spondylolisthesis, malformations of the spinal cord), Fractures (cervical spine injuries, thoracolumbar spine injuries, osteoporotic spine fractures),

Tumors and Inflammation (primary tumors of the spine, intradural tumors, infections of the spine, rheumatoid arthritis, ankylosing spondylitis), Treatment of Postoperative Complications, and Outcome Assessment in Spinal Surgery.

Besides the actual content of the book, the design of the chapters (all of which are similar) is excellent. Each chapter starts out with a highlighted section entitled “Core Messages.” Here, the reader can quickly see the key facts, which are described further in the chapter. Then, along the sides of each page are short sentences that can direct one to the material adjacent to it. The chapters contain drawings of the diseases, patient photographs, surgical approaches, and imaging studies. Clinical presentations; diagnostic work-up; and treatment options, both surgical and nonsurgical (where the material is appropriate for these items), is followed by a 1/2- to 1-page summary of the chapter called “Recapitulation.” The references are divided into 2 groups: what the authors have determined to be the key articles and then a listing of all other pertinent papers. This setup makes digestion of the material easy and straightforward.

The value of the book to neuroradiologists is not in the imaging per se but how important correlative imaging is brought together with clinical features. For example, take the 4 chapters on scoliosis (108 pages). Each of the 4 underlying types of scoliosis (idiopathic, neuromuscular, congenital, and degenerative) has similar sections: epidemiology, pathogenesis, classification, radiologic classification, clinical presentation, curve assessment, diagnostic work-up, nonoperative treatment, and operative treatment. What makes those similarly constructed chapters valuable is the integration of all aspects of the disease under consideration so that the radiologist not only sees patient pictures with clinical assessment but also gets to see, with excellent drawings and occasional intraoperative photographs, exactly how the maladies are treated surgically. This method of teaching the essence of the disease is repeated in subsequent chapters throughout the book.

Spinal Disorders: Fundamentals of Diagnosis and Treatment is an important publication that allows insights into disease evaluation and treatment, which is not available in standard imaging texts on the spine. In 1 cover, this text brings together the essentials of spinal disease; therefore, it would be of value to all neuroradiologists.

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