Book reviews

Orthopaedic knowledge update: Musculoskeletal tumors

Lawrence R Menendez (ed), 395 pages, Musculoskeletal Tumor Society/American Academy of Orthopaedic Surgeons
ISBN 0-89203-257-X

Since 1994, the American Academy of Orthopaedic Surgeons has published a number of volumes in the speciality series to spread current information in selected fields of orthopedics. This year, the latest addition to this series, "OKU: Musculoskeletal Tumors", was published in cooperation with the Musculoskeletal Tumor Society.

The volume is divided into 5 sections, each coedited by a separate section editor: General Considerations, Benign Bone Tumors, Malignant Bone Tumors, Soft-Tissue Tumors, and Carcinoma Metastatic to Bone. The 6 editors have included 55 authors, mainly from North America. Hence, the volume reflects North American treatment traditions which, however, already are well-known all over the world.

In general, the text is up-to-date, well balanced, and well structured. The authors and editors have managed to cover the entire field, to collect and present a good mixture of "old truths" and new frontline techniques. The emphasis is clearly on information rather than indoctrination. The text is easily read, and enhanced by the decision to omit references in the text and instead give a list of recommended literature at the end of each chapter. The typographic result is close to perfect, with an abundance of tables, illustrations and also a CD-ROM with over 150 supplementary illustrations. Furthermore, I found only 6 misspellings in the whole volume!

The editing is good, but could have been more consistent. There is a marked difference between the chapters as regards the level of the details given. Chapter 2 provides a good survey of cellular and molecular biology of musculoskeletal tumors which, in my opinion, gives the right number of facts to the intended reader. In contrast, chapter 32 on radiation therapy for malignant soft-tissue tumors is far too detailed to be valuable to such a reader. Moreover, some information is presented in several chapters, and is not always consistent.

One serious point of criticism must be made. It may sound silly to state, but it is a fact, that the best way to improve the quality of care for all patients with musculoskeletal tumors is to treat them all according to state-of-the-art knowledge and guidelines. This volume would have given an excellent opportunity to discuss referral patterns: which patients should be referred and who should not, the reasons for and benefits of referral, organization of a tumor center, training of its members, et cetera. In other words, within a certain geographical area, how should treatment of patients with musculoskeletal tumors be organized and performed? Does the tumor center have a responsibilty that extends outside the hospital walls? In the case of the single GP, who probably will be the first physician to see a patient with a lesion, is it the responsibility of the GP or the tumor center to ensure that the patient is treated according to state-of-the-art? This is a difficult area with a lot of different views, but I think that the editors have missed a chance at least to present their views on how musculoskeletal tumor care should be organized and given.

I am not sure that this book will become a valuable reference in a department dealing with patients having musculoskeletal tumors. However, for residents and colleagues with an interest in oncologic orthopedics, it gives a good opportunity to gain an insight into this multi-faceted and rapidly developing field.

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Lumbar disc herniation

Robert Gunzburg and Marek Szpalski, 300 pages, Lippincott Williams & Wilkins, Philadelphia 2002
ISBN 0-7817-3600-5

Both editors of this book are well known Belgian orthopedic surgeons, with an extensive publication list in research on the lumbar spine during the last decade. This book includes basic research, pathology, diagnostics, conservative and surgical treatment, perspectives, economic and ethical considerations. 6 of the authors work in Sweden or Finland, 29 in the rest of Europe and 12 in North America, therefore the book is suitable for use in Europe and Scandinavia.

It is intended for practitioners, including physicians who treat disorders of the back, rheumatologists, physiatrists, neurologists, orthopedic and neurosurgeons as well as basic researchers in spinal pathology and analysts of health policy. The aim was to cover various aspects relating to the lumbar disc rather than to write about practical surgical guidelines. These aims, together with comprehensive and updated reference lists at the end of each chapter, have created a book that will fill the space in the book shelf of departments treating lumbar disc problems and the archives of specialists in spinal disorders. It is well indexed and organized logically, which makes it easy to find discussions regarding specific questions. This enhances its value as a reference book. However, 300 pages devoted to the lumbar disc turn out in many sections to be too specialized to arouse the interest of the average interested orthopedic surgeon.

The first chapter, including disc biomechanics and herniation, has several pages of text, but very few figures or tables to make the chapter more practically useful. If informative figures of the anatomy in the young and ageing spine had been added, it would have been easier for the reader to follow the discussion. This chapter is to some extent typical of the first two sections of the book, where the authors try to present all relevant knowledge, without taking space for figures or tables, which is a layout that can make it difficult for a reader not specifically involved in the problem to follow the discussion. Later in the book, when more figures and tables are included, it becomes more interesting to read, but without losing any relevant data.

The chapter on Schmorl's nodes can be misunderstood. The author defines and discusses these nodes and the clinical relevance of the radiographic findings. Then he devotes an essential part of the chapter to a discussion of Scheuermann's disease and the hypothesis that prolapse of the intervertebral disc induces juvenile kyphosis. This view again appears in the chapter under another subheading. Although the author states that "nodes are not always associated with kyphosis and kyphosis may occur without nodes", the reader can easily get the impression that the relation is important and that there is a causal relationship between Schmorl's nodes and Morbus Scheuermann. The chapter would have been better if the hypothesis had been given a less prominent place.

The chapter describing disc herniations in children shows that there is little evidence in the literature about treating children. The recommendation by the author " that the treatment of herniated discs in children should include complete bed rest for 2–4 weeks with or without traction, utilization of a corset for 3 months", must be regarded as based on opinions, rather than on evidence. Although the author admits that it is uncertain whether the recommendations are supported by clinical trials, publications like this should be careful about making opinion-based recommendations. Moreover, the same author refers to Kurihara and Kataoka when he states that "all children with neurologic signs required surgery, as the long-term results of conservative treatment are not positive". This statement is made without clearly presenting the outcome on surgery. Recommendations such as "association of fusion depends on local instability or morphologic changes" will not help the reader in the treatment of a pediatric cohort. For the reader, it is more likely to increase your uncer-

tainty. Should some pediatric patients with herniated discs undergo fusion? How do you choose these patients? What does the author mean by local instability or morphologic changes? Is this advice based on evidence or opinion based?

The chapter discussing chemonucleolysis and manipulation can also be criticized for its conclusion that "osteopathic manipulation is effective treatment of patients with lumbar herniation and radiculopathies due to disc herniation". This conclusion is based on a single study by the author which showed that manipulation is as good as chemonucleolysis. However, the study design can be questioned and even the author states that some patients were not randomized according to the predetermined order because of administrative differences which are not very clear. Moreover, patients randomized to manipulation were treated immediately while those in the chemonucleolysis group had to wait, on average, 9 weeks before the treatment started. These problems, in addition to the fact that no untreated group was followed make it questionable to draw definite conclusions such as "osteopathic manipulation can be considered safe and effective treatment for patients with lumbar radicular symptoms due to disc herniation". Several independent studies should be done that show a similar outcome before the statement can be entirely accepted. Furthermore, since at least 5 published randomized controlled trials (RCT) show that the results of open surgery are better than chemonucleolysis, the author could also have concluded that manipulation is worse than surgical treatment of herniated lumbar discs with radiculopathy.

The section including new treatment modalities is relevant and fascinating. However, several authors make recommendations not supported by the data given. For example, lumbar posterior endoscopic microdiscectomy is very positively described on the basis of a series of 100 patients with no controls, who were treated at the authors' clinic. Conclusions, such as those "based on a clinical need and demonstrated data, the Raymon prosthetic disc nucleus (PDN) device presently serves as an important contribution to the treatment of back pain" with, in this survey, a few uncontrolled data on patients given, are not acceptable. With 1 years' data on 15 cases treated with anterior disc replacement after lumbar discectomy, and based on this conclude that "the procedure completely treats the problem of sciatica and low back pain with conservation of the mobility, it limits scar tissue formation and the risk of root deterioration", is a statement that should also be modified. The perspectives for back surgery are of utmost interest and importance, but the conclusions and recommendations should not go beyound existing data. The authors' reports would benefit by descriptions emphasizing that similar devices and techniques are promising, but the surgery is still in the experimental stage, and only when evaluated by independent observers in well-designed clinical RCT, can adequate recommendations be made to the orthopedic society.

The book includes almost all aspects relating to the herniated lumbar disc. As previously described, some figures and drawings of the anatomy in the normal and aged spine could be of help. For a surgeon working in a clinic, it would be of interest to devote one chapter to recommended analgesics and anesthesiological considerations. Although manipulation by physiotherapy is discussed, it would be of interest to learn about the scientific background for the treatment by osteopaths and chiropractors, two groups of health-care practitioners with whom all orthopedic surgeons dealing with spinal problems are familiar.

In summary, this is the first edition of a book with the wider aim of describing current basic research, pathology, diagnostic procedures and treatments of the herniated lumbar disc. The book is not for everyday surgery, but fills a gap for surgeons specializing in lumbar spine discs. The major critics of the book concern new treatments for which several recommendations and conclusions are not adequately supported by the data given. An unobservant reader could think that the techniques described are evidence-based and accepted methods in orthopedics today.

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