

Book reviews

Tissue engineering in musculoskeletal clinical practice

Eds. Linda J. Sandell and Alan Grodzinsky, 400 pages. American Academy of Orthopaedic Surgeons, 2004

ISBN 0-89203-329-0

This book contains 39 chapters on tissue engineering, all written by different experts and leaders in the field. The first section deals with clinical and marketing challenges. One gets an impression of a technology searching for applications. The sections that follow deal with bone, cartilage, and ligament-like tissues. The last section deals with methodologies, mostly scaffolds, and some regulatory issues.

The book describes the frontline of research in this field from all angles, and the competence of the authors of the various chapters cannot be disputed. However, it is unclear to me what the target readership is. This probably ranges from market investors to biologists and clinicians. Each group of readers will find something of interest, but the parts they find interesting will probably differ. Furthermore, there is a lot of redundant information. For example, 4 of the 6 chapters on tissue engineering of bone begin with descriptions of the

number of bone fractures and bone grafting procedures in the USA. 6 chapters review (either extensively or briefly) the development of BMPs and their preclinical testing. Thus, this book contains 39 short review articles on various fields related to tissue engineering in orthopedics. Most of them are well written and contain interesting and important information. Some are excellent. Because each author has covered the background to the field, however, the resulting redundancy makes the book as a whole unpleasant to read. Even so, people with different backgrounds will find at least some chapters to be of considerable importance.

Per Aspenberg

Section of Orthopaedics & Sports Medicine, Dept. Neuroscience & Locomotion, Faculty of Health Sci, SE-581 85 Linköping, Sweden
per.aspenberg@inri.liu.se

Fractures of the pelvis and acetabulum

Marvin Tile (Ed.-in-Chief), David L. Helfet, James F. Kellam (Section Eds.), Lippincott Williams & Wilkins, Philadelphia 2003

ISBN 0-7817-3213

This is the third edition of a well-known textbook; the first one was published 20 years ago. It is organized into three sections, each with its own editor: General aspects of the pelvic ring and acetabulum (MT), Disruption of the pelvic ring (JFK) and Fractures of the acetabulum (DLH). Fifty-five authors have contributed to this book of more than 800 pages. The ambition has been to be a “complete reference text for all aspects of these difficult fractures”.

As one would expect, the presentation of anatomy, mechanics, classification of injuries, treatment, complications and results has been fully covered in an extensive book like this. The most valuable quality is that for each type of injury, there are very precise and practical instructions about reduction and fixation techniques. This makes the book suitable for preoperative planning. There are also chapters about management of the polytrauma patient and prevention of thrombo-embolic complications.

To make the presentation complete, there are interesting and very informative chapters about stress fractures of the pelvis in patients with osteoporosis, fractures of the acetabulum in the elderly, primary and delayed hip replacement for an acetabular fracture, reconstruction of the metastatic pelvis, and considerably more. To prepare for the future, three-dimensional computer-assisted navigation of fractures is presented. All chapters are followed by a great number of references. There is also a CD-ROM with case presentations of pelvic and acetabular fractures. The book is recommended to most trauma surgeons. Quite a lot of information is for the very specialized surgeon, but in a book like this there is important and useful information for everyone.

Rolf Önnarfält

Department of Orthopedics, Lund University Hospital, SE-221 85 Lund, Sweden
rolf.onnerfalt@ort.lu.se

Paediatric fractures and dislocations

Lutz von Laer, 519 pages, Thieme Verlag, Stuttgart 2004
ISBN 3-13-135381-3

Lutz von Laer has a lifetime's experience of treatment of children's fractures and also an impressive number of published articles on the subject. The first edition of his textbook on Paediatric Fractures and Dislocations appeared in 1986. My review deals with the new English translation of the fourth edition, which was originally published in German in 2001.

In the preface the author states his aims: "I have written a practical book about mundane matters of everyday clinical routine, especially for those persons who do not treat children exclusively. For this reason I have placed the primary emphasis on mundane, everyday injuries. Rare injuries...are given less attention as they usually belong in the hands of specialists anyway." Even so, von Laer has included numerous sections dealing with the management of posttraumatic deformities that, I feel, are not so "mundane and everyday".

The organization is as usual in textbooks on fractures. First, there is a general part (94 pages), followed by chapters on specific fractures and dislocations (346 pages), and finally an appendix (35 pages) covering child abuse, birth fractures, pelvic and spinal fractures, toddler's fractures, and pathological fractures.

Except for the ones on general science, each chapter starts with a one-page summary and ends with an "overview" of the "most common post-traumatic deformities", their causes and the indications, timing and techniques used for corrections. A nice feature of the book is that in every chapter summary (as well as in the running text), the author states—often succinctly—how much malalignment can be left to be corrected by remodeling and what techniques (when necessary) he recommends for fixation.

The book is liberally illustrated (1,600 illustrations) with mostly high-quality radiographs, as well as schematic drawings. The reference list

comprises some 1,100 items and approximately one-fifth of them were published after 1999. The subject index is comprehensive; finding what one is looking for is easy.

This is not a book to carry in one's pocket, to consult over a case in the Emergency Room. It more likely belongs in the clinic's reference library. The book was originally written for the German-speaking countries, where, according to the author, "clinical understanding of medicine has largely fallen by the wayside". Thus, every now and then he embarks on a crusade against what he considers poor practice or not to be in the best interest of the child, and in the preface he offers an excuse: "English-speaking readers will please bear this in mind when I employ apparently exaggerated emphasis and an overly demanding tone in describing clinical practices that these readers may take for granted".

In Blount's classical book on children's fractures, there is a picture of the donkey-eared doctor, the nice-looking radiograph and the small child in severe pain. The legend runs "Doctor, treat the patient not the picture." Von Laer repeatedly reiterates the importance of this seemingly self-evident concept. He also repeatedly—and rightly—highlights the importance of explaining the options to the parents and, above all, to the child, and (whenever possible) of leaving the final decision to them, and more especially to the child.

Some of the author's practices and opinions are, I think, not commonly agreed upon in Scandinavia, for instance applying a plaster splint to a fracture, meta- or diaphyseal, in good apposition but with an angulation, then seeing the child after four days to close the cast and again after another four days to wedge the cast to correct the angulation, regarding skeletal traction of femoral shaft fractures as an obsolete method that should no longer be employed, irrespective of the age of the child.

Concerning femoral shaft fractures, von Laer maintains that “a lengthening deformity occurs below age 10...The more remodelling occurs and the longer it lasts, the greater the difference in leg length. Prophylactic shortening is ineffective.” This is from p. 286, and the same opinion is also to be found on p. 5.

The author is more in favor of using external fixation in a variety of fractures than is common in Scandinavia, for example instead of percutaneous pins in some supracondylar fractures of the humerus, or instead of pins or flexible nails in diaphyseal forearm fractures.

To me, it is natural to compare this volume with a well-known English textbook: Rockwood and Wilkins' *Fractures in Children* from 2001. Von Laer's book is less than half the size, and thus not as comprehensive. Usually there are more options in Rockwood and Wilkins' from which the experienced clinician may choose, as well as a preferred method recommended for the less experienced. On the other hand, there are injuries that, to my mind, are excellently described by von Laer. A typical example would be the chapter on ankle injuries, where I find the section on 2-plane (juvenile Tillaux-) and 3-plane fractures especially helpful.

Considering that this is “a practical book about mundane matters of everyday clinical routine”, it covers all (or nearly all) skeletal injuries that fall

into that category. Personally, I think that in future editions a few items could be expanded upon; for instance, (1) a description of the technique to be used when reducing distal forearm fractures in bayonet apposition, (2) a somewhat more thorough discussion on the management of the pulseless arm in supracondylar fractures of the humerus (“pink and pulseless” vs. “pale and pulseless”), (3) a consideration of what importance should be paid to axial rotation in diaphyseal forearm fractures, and (4) inclusion of a section on the management of fractures of the humeral capitellum.

This is a well-written book, with, as the author himself points out, some emphasis on German traditions in fracture management. Those traditions are sometimes a little alien compared with the Scandinavian way, and they thus illustrate that there is usually more than one successful approach to the treatment of children's fractures. Being familiar with more than one is a distinct asset, and a good reason to include this volume among the clinic's reference literature.

George Hirsch

Department of Orthopedics, Astrid Lindgren Hospital, Karolinska Hospital, SE-171 76 Stockholm, Sweden