

BOOK REVIEWS

Rehabilitation of the Knee: A Problem-solving Approach, Bruce H. Greenfield, ed, pp. 467, 1993. Price £32.00. ISBN 0-8036-4335-7. Williams & Wilkins Ltd, London.

This highly up-to-date book about knee disorders and their rehabilitation has been a real pleasure to read, with its attractive lay-out and an evidently comprehensive philosophy of treatment. All the chapters contain instructive and clear illustrations, all in black-and-white. The case studies presented at the end of each chapter emphasize the problem-solving approach applied as a guiding principle in the book. In addition to this, the book also contains a special chapter on clinical problem-solving. A particular advantage in some of the chapters is the clear description of "all" special knee tests. In the appendix with a selection of such tests, however, *Steinmann's 1st test*, which may be used instead of Apley's less useful test in practice, is missing. The principles of orthopaedic and sports physical therapy are thoroughly described, meeting the demands for shorter treatment schedules and presenting well-conceived plans for rehabilitation with functional progression.

As examples of the up-to-date viewpoints in the book I may mention the concepts of waiting three weeks before surgical intervention after an anterior cruciate ligament rupture, in order to reduce the risk of fibrosis, and for the same reason doing a notch plasty from the lateral wall of the femoral intercondylar notch. The programme suggested by J. McConnell for the patello-femoral pain syndrome (PFPS), with patella (medial) taping to correct malposition and a prescription for exercise, is another example mentioned.

The list of contributors comprises master clinicians, and the editor's introductory chapter on the functional anatomy of the knee is a master-piece. This is followed by excellent and useful chapters on the evaluation and rehabilitation of the injured knee, where section II deals with non-protective injuries including microtrauma (= overuse injuries), patello-femoral joint dysfunction with the "miserable malalignment syndrome" and arthritis. Section III covers protective injuries, including a review of surgical procedures for intra-articular repairs (in fact even discussing arthrotomy versus "arthroscopically assisted" procedures of ACL tear treatment) and rationales underlying their rehabilitation. It is judiciously noted, for example, that caution should be taken to protect the reconstructed ligament from shear forces, especially the final 30–44 degrees of active extension. The treatment of medial joint capsule structures and of lateral compartment injuries, as well as rehabilitation after meniscal surgery and total knee arthroplasties (TKA) all have their own chapters. The chapters concerning soft tissue healing, pointing out the relevance of controlled exercise programmes, including stretching, to provide the desirable stress component, are excellent. There are also descriptions of devices for continuous passive motion and for evaluation of arthroplasties (TKA) as well as of orthotics. It is pointed out that exercise is more important than bracing for the patello-femoral pain syndrome (PFPS) but that neither should be used alone. In the description of the range of motion tests on the other hand, the importance of examining

the knee flexion in prone position to evaluate the muscular flexibility of the quadriceps—a factor of great clinical relevance—is not sufficiently emphasized, although it is mentioned.

The book is recommended.

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Lumbar Disc Disease, Second edition, Russell W. Hardy, Jr., ed, pp 362, 1993. Price \$157.50. ISBN 0-88167-951-8. Raven Press, New York.

The volume consists of 31 chapters, written by different authors. Most of the chapters are focused on low back pain (LBP) and sciatica, and not specifically on the intervertebral disc. Brief surveys are given on the anatomy of the lumbar spine, epidemiology and diagnostic procedures, especially radiographic investigations. Non-surgical treatment in LBP is considered in a few short chapters; the most comprehensive is the chapter on "Functional Restoration" by Tom Mayer in Dallas. More than half of the book presents descriptions of surgical methods in the treatment in LBP and their complications. With several different authors, it is natural that the opinions are sometimes divergent—this highlights the lack of reliable investigations on many methods used in the treatment of LBP. In the chapter on percutaneous lumbar nucleotomy, for example, the only results presented are from an investigation made by the authors where favourable results of the procedure are presented. Many other studies have however shown inferior results with nucleotomy as compared with other methods, but there are no references to these investigations. In contrast, the authors of the chapters on microdisectomy and on chymopapain injection have given objective accounts on the advantages as well as on the drawbacks of these procedures.

In the chapter on herniated nucleus pulposus (4) confusion is caused by the designation of the disc causing rhizopathia, with only the number of one of the adjacent vertebrae in some places, i.e. "L4 disc" (which probably means the L4-L5 disc), while in other places the appropriate "L4-L5 disc" is used. The first way of indicating the disc level may perhaps be more commonly used by neurosurgeons; the Editor of the volume is a neurosurgeon, and more than half of the chapters in the book are written by neurosurgeons. Another slight criticism is that the list of references is arranged differently in different chapters.

In conclusion, the book gives a current review on the treatment of LBP, especially as regards surgical and other invasive treatments. As such it is worth reading for the spine surgeon, as well as for anyone who wants a survey of this subject. However, the title of the book is somewhat misleading; the book is not especially focused on the intervertebral disc, and it includes no reports on current research and observations in disc physiology and pathology. Rather, the book deals with diagnostic procedures and treatment in LBP irrespective of whether they are caused by disc disease or not.

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