Book reviews

MRI and CT of the spine. Case study approach

R Kricun and M E Kricun, 392 pages, Raven Press Ltd, New York, 1994
ISBN 0-7817-0026-4

Without even a short explanatory introduction, this case study approach to radiological findings in diseases of the spine starts directly with case 1, presenting 2 or 3 pictures and a brief history. This works well, however, and the authors go from elementary facts and ways of thinking in the first cases to more advanced problems later on. Knowledge of relevant anatomy of the spine and of basic MRI principles (such as spin echo, T1- and T2-weighting, TR and TE) is assumed, and must be sought elsewhere. A short list of MRI terminology with brief explanations could, however, have been of value for non-radiologists. Additional MRI techniques, such as gradient echo and fast spin echo, are briefly discussed where appropriate, while differences in signal and tissue contrast are dealt with in detail. This makes the book valuable for orthopedic surgeons and neurosurgeons and radiologists.

Unlike the authors' previous book, *Computed Tomography of the Spine: Diagnostic exercises*, this book is heavily oriented towards MRI, reflecting its increased availability and superior possibilities and image quality. Throughout the text, and especially in the discussions on spinal fractures, bone tumors and spinal stenosis, the relative virtues of MRI, CT and other methods are extensively compared. The importance of conventional radiography in assessing axial dislocation of fractures and exact preoperative numbering of vertebrae could, however, have been more emphasized.

On almost every page there is at least 1, and more often 3 or 4 pictures. They are well chosen and the findings are, as a rule, easy to observe even for non-radiologists. It might have been stressed that most real life cases are less obvious, and that it takes some experience to distinguish some findings from normal variants and technical artifacts. Together, the pictures represent a rather impressive spectrum of pathology. The image quality is generally adequate, although some pictures are a bit noisy and some, without doubt, were better as originals. There are also several nice line drawings to clarify anatomic relations. Captions are comprehensive, describing the findings and also giving TR, TE, flip angle, etc. to assess the amount of T1- and T2-weighting for all MR images, a feature not necessarily found in all books on MRI.

The text accompanying each case is rather short but well written. It commonly includes sections on etiology, clinical findings and treatment, as well as interpretation of the radiological findings, including normal anatomy and variants. It also provides some hints on how to optimize pictures (with the used imaging protocols presented in a separate appendix), as well as differential diagnosis and diagnostic pitfalls.

73 cases are presented in almost 400 pages, covering topics such as degenerative disorders, trauma, tumors, infection, congenital malformations and so on. Most common disorders seem to be represented and the information is up-to-date.

A potential drawback of case studies is that information on a certain subject is more spread out than in a conventional textbook. The high-quality subject index of this volume, however, minimizes this effect. In conclusion, this is a well written, heavily illustrated and interesting book on MRI, which can be recommended to the radiologist as well as the non-radiologist.

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The management of musculoskeletal problems in the haemophilias

Robert B Duthie, Charles R Rizza, Paul L F Giangrande and Christopher A F Dodd (editors), 282 pages, Oxford Medical Publications, Oxford 1994
ISBN 0-19-262317-6

In 1972, Robert B Duthie and Charles R Rizza, published the first edition of *The Management of Musculoskeletal Problems in the Haemophilias* based on teamwork by the authors and their colleagues at the Nuffield Orthopaedic Centre and the Oxford Haemophilia Centre. They described early experiences of close cooperation between hematologists and orthopedic surgeons to minimize the effect of hemophilia on the musculoskeletal system. The second edition of this monograph has now been presented. Although both contributors to the first edition were from Oxford, they have now invited two experts from outside Oxford (Paul L F Giangrande and Christopher A F Dodd) to contribute.

The interval between the two editions has been a period of tremendous development in the understanding and management of hemophilia. The molecular-genetic basis of hemophilia A and B has been elucidated. New technologies for the purification and production of factors VIII and IX, as well as new strategies for the management of the hemostatic defect in hemophilia have been presented. The possibility of reducing joint damage by full-time prophylactic treatment from an early age has been shown. In the interval between the two editions, transfusion-transmitted diseases, such as hepatitis and AIDS, have also appeared, making a multidisciplinary comprehensive team approach to these patients necessary. The cause of joint destruction in hemophilia is not yet clear. Many studies have found iron deposition in cartilage and synovium, enzyme released into joints and inflammatory responses to cells and lymphokines as etiologic factors, but the mechanism remains to be exactly defined.

The text gives a full account of modern non-operative and operative procedures in the management of musculoskeletal problems in hemophilia. The authors conclude that most patients with end-stage arthropathy can be managed well with clotting factor concentrates as required, therapeutic exercises, analgesics, anti-inflammatory drugs, the use of orthoses and restricted activity.

A small number of patients with very painful, localized joint destruction unresponsive to conservative measures require surgical intervention. For end-stage hip arthropathy, the authors recommend primary cemented prosthesis and are well aware of the high percentage of aseptic loosening in some series. In end-stage knee arthropathy, they have found arthrodesis to be the most predictable procedure to provide durable pain-free function, considering total knee replacement in end-stage arthropathy to be a difficult procedure with a high early complication rate. This is somewhat debatable. The authors have also found some series with hopeful signs of lasting prosthesis survival.

Although some parts of the book—e.g., a chapter on the social implications of hemophilia—are relevant only to the U.K., there is much valuable information about modern hemophilia treatment. The book is recommended and should be available to all orthopedic surgeons involved in the treatment of hemophilia patients.

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