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Recent literature

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Wolfgang Dahnert (ed) Radiology review manual

Lippincott Williams & Wilkins,
US, 2007, (ISBN-13:
978-0781766203), £53.00

The first edition of this textbook, commonly known as 'The Green Giant', was published in 1991. Now in its sixth edition, it has continued to expand to 1,232 pages. It originated as a result of the author amassing a collection of radiological facts over time for his own personal use. Realising the value of such a collection of disparate pieces of information, they were organised and published together as the first edition of the *Radiology Review Manual*, the aim being to provide a single reference work that encompassed the vast amount of information pertinent to today's practice of diagnostic radiology. In particular it was aimed at those radiologists who practise a broad spectrum of radiology as opposed to those specialists who are already expert in their field. It has also subsequently become a key reference work for trainee radiologists (both in the U.S. and abroad) approaching their specialist radiological examinations.

As stated in the book's preface, it is intended to be used like a dictionary, and its organization reflects this, roughly leading anatomically from head to toe. Within each subsection, as in a dictionary, conditions are ordered alphabetically. All imaging findings relevant to an individual condition are located together, apart from nuclear medicine. There is an additional section on nuclear medicine towards the end of the book which deals with technique and functional aspects not covered elsewhere. There are also brief chapters discussing statistics and contrast media. Critical information that may be required quickly in an emergency (e.g. for treatment of adverse reactions) is found on both the back and front inside covers. Helpful mnemonics are prevalent throughout-a necessary evil when confronted with the large volume of information that has to be remembered.

Each individual chapter (covering an organ system) is nicely constructed so as to be relevant to the day-to-day practice of radiology. The first section deals with the interpretation of radiological features or patterns which can then be used to create a relevant list of differential diagnoses. Once a (hopefully short) list of differentials has been derived, one can then refer to individual conditions listed in the second section of a chapter where specific imaging characteristics should lead to a unifying diagnosis. A small amount of relevant anatomical, embryological

and functional information is sandwiched between these two segments.

On the positive side, this is probably the single most comprehensive radiological reference book of sensible size and cost. In particular, for those approaching their exams it is helpful to have everything condensed into one volume and to be reasonably sure that most of the important areas are covered. Its outline style is also helpful in this regard for quick, last-minute reference (and by extension day-to-day practice). It also allows assimilation of a large amount of knowledge in a timely fashion, as opposed to more descriptive-based texts. The list of differential diagnoses is exhaustive and more comprehensive than most other books on the market. If you were to state a preference for one reference work in a busy department this would have to be at the top of any list.

Conversely, whilst its outline style has its advantages, it is also one of its major limitations. The author acknowledges that 'this may jeopardize the full meaning of statements when taken out of context or isolated from the fundamental knowledge of general radiology'. Listing things in an alphabetical manner leads to related diseases not being closely grouped in categories, which can make understanding a disease category more demanding. This is also not a book to be used in isolation—trying to understand conditions de novo would be almost impossible using this book alone. Dahnert works on the assumption of a core knowledge base —other, more descriptive texts such as *Grainger and Allison's Diagnostic Radiology* would be a more fruitful place to start. In addition, as there is such a vast amount of information presented in an outline format it is easy to become quickly overwhelmed by its sheer volume and somewhat monotonous presentation style. 'Important comments' are highlighted but it is easy to miss the basic point that distinguishes one condition from others. From a revision aid point of view, the key differential diagnosis lists are not clearly highlighted and this can result in a lot of effort expended on relatively trivial radiological findings. Other texts, such as *Weissleders's Primer of Diagnostic Imaging*, contain less information but manage to distil what they do present down to the key elements.

The sixth edition has been improved dramatically by the addition of new line drawings. However, there is still room for improvement. The line drawings that have been included are very helpful, for example those detailing the anatomy of aortic arch variants. Radiology is by its nature a visual discipline and even more relevant line drawings would facilitate the learning process. Other texts also have an advantage over Dahnert with their selective use of comparison tables, making very clear key differences between diagnoses which can be somewhat lost in the rigid way information is presented here.

For all the topics that are covered in depth, some areas still continue to remain deficient in this edition. For example, very little coverage is given to scoliosis and dental radiology. I also understand economy of space as a reason for not having a separate paediatric section, but for those trainees who have to revise for a separate paediatric module, this is made more difficult by having the paediatric conditions hidden away within their respective organ systems. From a U.K. perspective, this book was not designed with the Royal College of Radiology modular written examinations in mind.

In summary, this is a 'must have' reference work for all radiologists in day-to-day practice or during their training. Although there are inherent deficiencies, it does an admirable job in what it is attempting to do—that is to condense the vast sea of radiological information into an easily accessible and rapid reference work.

Lee Grant, Cambridge, UK

Serge A. R. B. Rombouts, Frederik Barkhof, Philip Scheltens (eds) Clinical applications of functional brain MRI

Oxford University Press, Oxford, UK. (ISBN 9780198566298), 386 pages, £125.00

Functional MRI (fMRI) has become an indispensable tool for basic neuroscience research, and the clinical applications of the technique form a substantial and fast-developing field. Indeed, there are some institutions that now routinely use fMRI as an integral part of patient management. This volume describes the current state-of-the-art for a broad range of clinical entities, and as such, fills an important gap in the market. It is aimed squarely at fMRI researchers with an interest in developing clinical applications, and clinicians who are considering using the technique.

The book starts with an overview of the principles of fMRI and current applications. It includes a particularly helpful discussion of the novel challenges facing the fMRI researcher who is making the transition from 'normal' subjects to those with brain pathology.

Each subsequent chapter focuses on a particular clinical entity for which there is a substantial body of fMRI research, with topics including the neurosurgical (presurgical planning), neurological (stroke, Parkinson's disease, MS, and dementia) and psychiatric (schizophrenia and depression). Each chapter describes the clinical issues to be addressed, potential and (where appropriate) current clinical uses, methodological issues such as task design, and integration with other

imaging techniques. The limitations of the technique are given due prominence throughout. Two chapters of note are dedicated to presurgical planning, which is perhaps the major clinical application of fMRI. The volume does not cover, and does not intend to cover, more basic fMRI topics such as the basis of the BOLD signal or MR physics. The work only provides an introduction to important methodological issues such as task design and post-processing, doing so at a level of detail that is sufficient to understand the difficulties of the method but is far from comprehensive. However, all of the above topics are already well covered in other established texts.

In summary, this is a very well written work, which forms an excellent introduction to the clinical applications of fMRI for the uninitiated. The editors, by concentrating solely on clinical uses, have produced a book that now occupies a unique niche.

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Sheila C. Rankin (ed) Rodney H. Reznek, Janet E. Husband (series eds) Review of "Carcinoma of the esophagus - contemporary issues in cancer imaging"

Cambridge University Press, (ISBN 9780521882859), £45/$90

Part of the excellent "Contemporary Issues in Cancer Imaging" series, this short book is narrow in scope but has plenty of depth. As well as the expected chapters covering EUS, CT and PET there are reviews of the relevant pathology. The evidence behind current surgical and oncological practice is also described.

The opening chapter deals with the epidemiology and clinical presentation of the disease, and stresses the important distinction between squamous and adenocarcinoma of the oesophagus. This emphasis is carried through the book.

The section on CT in the context of oesophageal carcinoma would be of use to any radiologist. The strengths (diagnosis of T4 disease and distant metastases) and weaknesses (early T and nodal staging) of CT are covered with clear examples. Particularly useful is the discussion of CT in the context of response assessment and diagnosis of recurrence.

Perhaps for completeness's sake there is a chapter on recent advances in endoscopic diagnosis of oesophageal cancer. I doubt whether chromoendoscopy, narrow band imaging or optical coherence tomography will ever be of practical use to a general radiologist but the chapter is certainly interesting! Some of the light-based techniques described could possibly be of use to those involved in molecular imaging research.

The remaining chapters are of interest to general radiologists, even those who do not have a direct responsibility for PET or EUS. This book is a convenient concise review of the relevant research in this field.

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