Book reviews

Interest in osteoporosis has increased substantially in recent years, as a direct result of emerging therapies for the prevention and cure of this disease. Today, 3 of 1,000 papers on Medline deal with osteoporosis. It is only in the past few years that new pharmaceutical products have been approved and found efficient for the prevention and treatment of osteoporosis. According to the FDA, of all medical drugs and vaccines currently being developed for the treatment of disorders of the elderly, there are 23 drugs for the treatment of osteoporosis alone. Only drugs for rheumatoid arthritis and respiratory pulmonary disorders can compete in this context. There should therefore be a great interest in obtaining more knowledge of osteoporosis. The increased demand for knowledge of risk factors, diagnosis and treatment has encouraged more publications on osteoporosis.

Not all books published on osteoporosis are suited to surgeons, and therefore I, myself an orthopedic surgeon, have been given the opportunity to review three recently published books on the subject.

Clinician's manual on osteoporosis

L V Avioli, 64 pages, 2nd ed, Science Press Ltd, London 1997
ISBN 1-85873-080-5

This is a tiny pocket book of not more than 60 pages. In spite of the small format it contains a considerable amount of information on how and whom to treat for osteoporosis. The author is well-established in the front-line of osteoporosis research and writing. He is also the Editor-in-Chief of Calcified Tissue International. This book is evidence that Dr. Avioli's special field is endocrinology and not orthopedic surgery, although he is Professor of Medicine and of Orthopedic Surgery.

Therefore I cannot recommend this as a pocket book for use in the daily practice of an orthopedic surgeon. In my opinion the book is more suitable for doctors specialized in internal medicine, endocrinology or for general practitioners with special interests in this field.

The book is, nevertheless, a nice little piece of work and easy to read for those who have previous knowledge of the subject and are interested in calcium metabolism. There are plenty of colored illustrations and a few radiograms which, however, are small and therefore not always very illustrative. Unfortunately, there are only a few references that would stimulate further reading on the subject.

The contents are comprehensive and it is relatively easy to find specific information. Some comments from an orthopedic point of view are, however, worth noticing. The clinical characteristics of osteoporosis are dealt with in one chapter and focus solely on vertebral fractures. For instance, the author quite frankly states that osteoporotic women are characteristically short. This, of course, is true only if they have already had vertebral fractures. On the other hand, it is stated that hip fracture rates begin to rise abruptly between the ages of 40 and 44, a piece of information certainly not gleaned from daily clinical practice. It is also stated that therapeutic intervention could reduce overall hip fractures in this high risk group by about 50%. In my experience, there is not and never will be a rationale for preventing hip fractures in premenopausal women. In a chapter on risk factors of osteoporosis, several of these are listed. The listing clearly reflects the author's background as an endocrinologist and the uninformed reader may get the impression that thyroid replacement therapy, for instance, is as deleterious as glucocorticoids for the risk of developing osteoporosis.

The chapter on treatment is written with a certain United States bias, since drugs approved in the U.S. are more thoroughly dealt with than other drugs. More than one page concerns the treatment of osteoporosis with thiazides, which clearly has no place in clinical practice. The author also deals with emerging therapies in an interesting way but, on the whole, has omitted information about the selective estrogen receptor modulators, which are already approved in some countries and will most probably in the near future be approved also in the Scandinavian countries.

Although the book has an attractive format and is easy to read, I cannot see that it really fills a gap in the market of existing books on osteoporosis, and this is especially so on the Scandinavian market.

Osteoporosis in clinical practice. A practical guide for diagnosis and treatment

Ed. Piet Geusens, 188 pages, Springer Verlag, Berlin-Heidelberg 1998
ISBN 3-540-76223-X

This book of 188 pages contains contributions by more than 40 authors. It is stated in the foreword that the reader mainly targeted is the primary care physician. The book is quite comprehensive and its second part can certainly be read by any physician who has no knowledge of bone or bone physiology. However, the ordinary reader may easily be quite confused by the first chapter "Bone structure and function". Already after 20 lines, more than 10 different growth factors and non-collagenous proteins have been mentioned, all of which are without clinical importance today. The second chapter, entitled "Physiology of calcium homeostasis ..." includes very limited information of significance in a practical guide for diagnosis and treatment. It is not until after some 30 or 40 pages that some really practical information is provided and especially in the chapter entitled "Bone densitometry, X-ray and quantitative ultrasound", which is a nice presentation of these techniques.

Risk factors for osteoporosis and fracture are well covered. Several chapters deal with treatment, both pharmacological and non-pharmacological. The pharmacological chapters are divided into prevention and treatment of established osteoporosis and are well worth reading for the general physician and orthopaedic surgeon. There are also chapters on the prevention of falling and on physical activity. One short chapter, written by the undersigned, deals with treatment of the fracture itself. This chapter contains no new information for the orthopedic surgeon but provides background knowledge for the general practitioner.

The book in itself, with the exception of the first part, should be a comprehensive and practical clinical guide to identifying and treating patients with osteoporosis. Unfortunately, there are no references, although some chapters end with suggested readings, including a few references.

Bone densitometry and osteoporosis

Eds. H.K. Genant, G. Guglielmi, M. Jergas, 602 pages, Springer Verlag, Berlin-Heidelberg 1998
ISBN 3-540-63149-6

Let it be understood immediately that I like this book. It contains huge amounts of information, not only on bone densitometry but also on the pathophysiology and treatment options for osteoporosis. It has 601 pages and includes 132 figures and 34 tables. There are a lot of references, in fact one third of the book covers altogether thousands of references.

The book is divided into chapters which can be read separately, and which are clearly divided from each other and overlap is not very common. The chapters are all written by highly reputed international scientists, many with links to Italy. The book was also made possible by sponsorship from an Italian pharmaceutical company.

"Bone densitometry and osteoporosis" is well written and contains information both for the reader already an expert in the field, as well as for the general practitioner. There are chapters such as "Osteoporosis: The clinical problem", "Epidemiology of osteoporosis", "Risk factors for osteoporosis fractures", "Radiology of osteoporosis", "Basic considerations and definitions in bone densitometry" and "Clinical application of bone densitometry". Other chapters focus more on basic research than on clinical aspects, such as "Growth factors and the skeleton", "Cellular basis of bone resorption", "Biochemical markers of bone turnover" and "Beyond bone densitometry: Assessment of bone architecture by X-ray computed tomography at various levels of resolution".

Of special interest to the orthopedic surgeon is probably the chapter of 40 pages on periprosthetic bone mineral density and other orthopedic applications.

This book is certainly not the best on pharmacological treatment and non-pharmacological treatment of osteoporosis, but such is not its aim. In that respect, the two other books reviewed here will serve better. Nevertheless, the book is easy to read; it can certainly be read in sections, but can also be used as a reference book by the clinician or researcher who has a special interest in bone tissue and bone densitometry.

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