Book reviews

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Revision on total knee arthroplasty

Edited by J. V. Bono and R. D. Scott

Pp. 302. New York: Springer-Verlag, 2005. ISBN: 0-38722-352-5. £111.50.

Richard Scott, who has great experience in total knee replacement, and his colleague, have brought together experts in the field of revision arthroplasty who are known for their knowledge, experience and educational ability. Together they have provided a book which presents a contemporary and comprehensive review of revision knee arthroplasty. It is divided into three parts: the first about diagnosis and evaluation; the second, general principles of revision surgery and the third, special considerations in revision knee surgery.

In the first part, the possible causes of failure in total knee replacement are well described and the authors emphasise the need for attention to detail in the index procedure in order to increase the longevity of the prosthesis. It is curious that patellar resurfacing is advocated, yet the authors admit that its complications are a significant cause of revision surgery.

The chapter on polyethylene and its characteristics is most informative and it is interesting that highly cross-linked polyethylene is now being used. Its results are awaited. The causes for a painful 'total knee' are well described and its management is discussed. The authors of the chapter emphasise that the results of revision arthroplasty in patients with pain from an unknown cause are understandably poor. An accurate pre-operative diagnosis is essential before embarking upon surgery. Radiological evaluation of a failed total knee arthroplasty is discussed, including the most up-to-date methods of investigation (reformatted CT and MRI). Unfortunately, the cost of some methods is sufficient to prevent their use in many imaging departments. A chapter on bone cement and other methods of fixation would have been helpful to complete this section.

The second section describes the general principles of revision surgery. The chapter describing exposure for revision surgery is well written and comprehensive. The authors provide useful information for the surgeon including tips not usually found in textbooks. A chapter on allografts in revision surgery is presented which, while being of interest to European surgeons, is more likely to be of value to the surgeons of North America. Allografts have not been used widely in Europe where revision surgery has developed using modular prostheses. It is unfortunate that published results of revision surgery for aseptic loosening associated with the various types of prosthesis and fixation are few, and as a result, the comments made are based on impressions rather than on statistical analyses. For example, on the cementation of stems, it could be argued that the optimal method of fixation is yet to be decided and require randomised prospective studies.

The two chapters on tibial and femoral alignment are an important contribution. In the past, the topics have not been addressed as much as they deserve, and there is no doubt that many complications associated with primary and revision surgery are associated with rotational malalignment.

The chapter on restoration of stability clarifies many of the questions asked by trainees in regard to the options for improving stability in flexion and extension and patients with poor ligaments. The table on the subject presents an overview clarifying the situation.

The final section in the book relates to the management of specific problems, such as infection and failure of previous surgery for osteoarthritis, including osteotomy and unicondylar knee replacement. The authors provide insight into the various problems, each chapter containing many important points derived from a significant experience of this type of case.

While there are several books on revision knee arthroplasty on the market, I would highly recommend this volume for its clarity of illustration, its choice of authors and the way in which they have applied their wide knowledge and expertise to the various topics. Apart from some minor details described above, the book provides a comprehensive review not only for trainees but also for experienced orthopaedic surgeons and knee specialists. With increasing numbers of patients requiring revision knee surgery this type of book is to be highly valued.

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Total ankle arthroplasty

By B. Hintermann

Pp. 195. Vienna: Springer-Verlag, 2005. ISBN: 3-21121-252-3. \$179.

This relatively slim text represents a useful overview of our contemporary knowledge of the evolution and management of arthritis of the ankle and prosthetic replacement. It ably makes the point that arthritis of the ankle presents a considerable problem to patients and that the failure of previous forms of treatment does not justify our doing nothing. Hintermann's stance on the use of ankle arthroplasty is both brave and controversial. Perhaps he is unique in making the point that an ankle replacement is more likely to succeed if the mechanics of the rest of the foot and limb are normal?

The review of the available prostheses and the definition of indications for arthroplasty are useful. The fact that this book represents an extended learning curve and considerable experience of the author in the use of ankle arthroplasty, is a great strength. There is a comprehensive review of complications, their prevention and management are discussed. As such, that alone makes this an important reference for those who have limited experience of the techniques. It should, of course, be accepted that his enthusiasm for the prosthesis which he helped design, is a theme throughout the book. In future editions, it might be wise to include data from a neutral academic corner.

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