

Book reviews

Intra-articular reconstruction of the anterior cruciate ligament

Angus E Strover (editor), 268 pages, Butterworth-Heinemann Ltd, London 1993

ISBN 0-7506-1385-8

The anterior cruciate ligament. Current and future concepts

Douglas W Jackson (editor), 462 pages, Raven Press, New York 1993

ISBN 0-7817-0039-6

Since the beginning of this century, a growing interest has been focused on knee ligament injuries with Ivar Palmer's thesis from 1938 as the start of reconstructive surgery. With all the activity during the last two decades, many textbooks on this subject with rather small variation in focus are available. These two recent texts have a slightly different focus. Angus Strover concentrates on technique and results, whereas Douglas W Jackson adopts a broader view.

Strover's book is written by surgeons for surgeons, little different from all the follow-up articles published in orthopedic journals. Steven Arnoczky's chapter on *Replacing the anterior cruciate ligament—what does it take?* is excellent. The basic message is that replacement is impossible with today's technique: "Surgical replacement of this structure requires not only an appreciation of the anatomical and functional characteristics of the normal structure but also an appreciation of the biological processes which accompany intra-articular reconstruction". Most of these processes are still unknown. Therefore, it is a little pathetic when in the remaining chapters of the book the surgeons start by saying that they know that this is difficult, but with their technique they have excellent results anyway. The most popular techniques of today and their results are reviewed. For patellar tendon autografts, CH Brown states on page 99: "... we can expect a properly performed ACL reconstruction ... to produce a 90 percent success rate ...". For allograft reconstructions, K Shino states on page 108: "The subjective and functional results ... have also shown a success rate of over 90 percent". About the results of the Leeds-Keio ligament, K Fujikawa states on page 202: "... 97 percent of the cases have a difference of less than 3 mm"—that is, normal knee stability. Negative experiences with the Gore-Tex ligament forces RP Karzel and RD Ferkel to make the

following statement on page 226: "Given the concerns discussed above ... a cautious approach to Gore-Tex implantations is recommended at present". This is certainly a diplomatic statement and it shows the proponent's normal inability to admit failure. Angus Strover himself reports (page 343, Figure 8.17) that the ABC ligament has 66 percent overall good/excellent results and he summarizes on page 250: "The ABC ligament has shown advantages over other artificial ligaments in its long-term survival, its relative lack of associated complications ... and ability to be revised successfully in the case of failure ...". In conclusion, the ABC ligament has an assured future in the older patient ...". The way I read the figures, this is a very optimistic summary.

The final chapter about *Consensus on principles of anterior cruciate ligament reconstruction* by Angus Strover simply reviews the anatomical and mechanical factors that are stressed as important for a reconstruction of the anterior cruciate ligament today. Most of these factors have still not been shown to have any significant effect on the end-result.

One thing that the book illustrates is that the overall end-result of this kind of surgery obviously is the same, no matter what technique or substitute is used. It is surprising that this fact has not attracted any attention. The book contains many technical details for the various procedures, each author stressing his own biases. This may be of value for the technically oriented carpenter/surgeon who tends to disregard or forget the biological events that occur in living tissue.

The book by Douglas W Jackson is quite different. It is larger both in content and format. Unfortunately, it is printed in a large format that does not fit on an ordinary bookshelf and it is too heavy to read in a comfortable position. This format may be neces-

sary for books that concentrate on art or other visual information, but for a book that mostly depends on the text it is a mistake. On the other hand, the contents are excellent. Steven Arnoczky has written an excellent chapter on the anatomy of the anterior cruciate ligament. It contains most of the information from his contribution in Strover's book, but more data are provided.

John O'Connor describes the function of the ligament in a way that he has done before in many other books. This chapter basically contains the same information that he presented in the book *Knee ligaments, structure, function, injury and repair*, by Daniel et al. (Raven Press 1990). Nevertheless, much of the current information on the mechanics of the anterior cruciate ligament can be found here in a series of excellent chapters by researchers. Most of it has been presented before in other publications, but a general overview like this is valuable.

New information is found in chapters on the biology of ligament injury, healing, repair and reconstruction. The section editor, Cyril B Frank, has done an excellent job together with the authors. Interesting information can be found in chapters like *Adhesion macromolecules of the ligament*, *The molecular glues in wound healing* or *The molecular signals in ligament healing*. The section on reconstruction of the anterior cruciate ligament that reviews different techniques is less interesting.

These chapters contain technical information for various operations and a very limited presentation of results. The same information can be found in Strover's book and in almost any issue of current orthopedic journals.

The section on *New directions: Basic science, clinical applications and research* is a highlight. The cornerstone chapters have been written by Cyril B Frank and David Amiel about growth factors and Integrin adhesion receptors. An interesting approach is presented by N G H Mohtadi on *Quality of life assessment as an outcome in anterior cruciate ligament reconstructive surgery*. A preliminary instrument for such assessment is presented. Considering today's trend of cost awareness in the medical field, such an instrument is important for assigning the right priorities to treatments. The final chapter about *Future directions of anterior cruciate ligament research* by Cyril B Frank provides an excellent summary.

I find Jackson's book valuable for the orthopedic surgeon who wants to penetrate the field of ligament reconstruction a little more deeply than usual. For the technically inclined surgeon who believes in new operative techniques, Strover's book is appropriate.

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How to write a paper

George M Hall, Editor, 128 pages, BMJ Publishing Group, London, 1994

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In the rich flora of guides to authors this book stands out on three counts: it is short, it is written by clinicians for clinicians, and the reader has direct access to practical advice. The chapters follow the manuscript from Introduction to References, followed by advice on how to write a Letter, a Case report, a Review and on the role of the manuscript assessor (reviewer).

The key recommendations and the structural details agree with the editing policy of *Acta Orthopaedica Scandinavica*. For example, it is emphasized that a review of the literature must not appear in the Introduction; and that Conclusions often is a trite repetition of what has been reported in the Abstract, in the Results section and in the main body of the Discussion. It is indeed true that percentages should not be used unless the groups contain more than 100 subjects, and I would add that decimals should be banned from most percentage and mean age data. In the current issue of an otherwise reputable journal the mean age in a series of 36 patients was 52.8 years, and 10.5 percent of them had been reoperated. For the message of the article 2 months short of 53 years is irrelevant information, and 0.5 percent means one fifth of a patient or hip—clearly the authors had not thought this through. This much any reader could check. What else is careless in the article?

I agree with their plea for more journalistic titles, but I can see no reason why an occasional title could not be declarative, a limitation imposed by *The New England Journal of Medicine*. Moreover, it is a great pity that so many titles—or rather subtitles—refrain from statements concerning the retrospective, prospective, randomized, double-blind, etc., nature of the investigation. Most clinical titles benefit from giving the number of cases.

In the discussion of the Case report the author points out that this is often the first article a budding author writes. Whether the manuscript is accepted for publication or not, the Editors should perhaps be more careful to give the authors of Case reports clear advice concerning the organization of the manuscript. Later in his career as a would-be-author, he may well harden, now is the time to direct him to Information to authors—this book has as a recurring theme the unfortunate attitude of authors to neglect such information and also the opportunity to look at current issues of the journal to which they submit

their manuscripts. Even after the Vancouver Agreement the house style gives individual publications their identity, and a manuscript that conforms to another journal may well be suspected to have been rejected by that journal ...

The section on the numbers of authors ritualistically deplores that many department heads and others put their names on manuscripts with which they really have had little or nothing to do. However, this does not mean that 8 names on a Case report are necessarily and always illegitimate. An orthopedic tumor case may well become scientifically relevant through the combined efforts of two orthopedic surgeons, one radiologist, one pathologist, one cytologist, one oncologist, and two geneticists, a total of 8. With electronic data handling this would not pose a problem for the data bases, and, in addition, as pointed out by one of my associates, eight names to a Case report is a low price for maintaining harmony in your research team.

I agree with most of what is said concerning illustrations, notably diagrams. Tufte's *The Visual Display of Quantitative Information* is rightly lauded, and it is admitted that a vertical table overemphasizes the data. I would add that a horizontal diagram likewise underemphasizes the significance—for most purposes a square diagram is ideal.

The ideal Methods section has been written before the study started, and this applies also to the Introduction. In fact, the best papers were probable largely written before the entire study started. The Discussion is too often added as a lengthy afterthought based on references consulted too late.

In the *British Medical Journal* 20 percent of all references in 1985 are said to have been wrong, and in the *British Journal of Surgery* nearly half were incorrect, one third of these being so faulty that the article could not be retrieved. This explains why *Acta Orthopaedica Scandinavica* for several years has checked all references with the aid of Medline. Nevertheless, even Medline can go wrong: The last author of a French article was named P. France. Sure enough, his first name turned out to be Paris!

I wish all authors and reviewers of manuscripts for *Acta Orthopaedica Scandinavica* would continuously consult this excellent little book.

Göran C H Bauer

Editor *Acta Orthopaedica Scandinavica*