



Book Reviews

Surgery of the Lumbar Spine

Authors: Sanford J Larson and Dennis J Maiman
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There are two very different types of book published on the spine. The large, multi-author reference book, which with modern publishing techniques, is usually reasonably up-to-date but 'dry as a bone' in terms of providing an interesting and stimulating read.

The second book is a limited-author book distilling a lifetime of experience in a limited field. 'Surgery of the lumbar spine' falls into the latter category, it is fascinating and a stimulating opinion of 'two authors'. One can almost hear the authors speak and lecture. However, when you read this book you must understand that it is the opinion of only two men, and however versed they are in the speciality, it contains idiosyncratic and dogmatic opinion, which is not always supported by the facts. I don't think this detracts from this book, which lays out opinions firmly held and justified with vigour. It is not a book for reference, but an ideal format for discussion, and argument.

The aims of the book are to integrate experience in pathology, bio-mechanics and clinical practice, and unusually in a book based from the neuro-surgical aspect, contains chapters on anatomy and bio-mechanics. The chapter on spinal anatomy does not set out to provide a detailed and comprehensive presentation of lumbar anatomy, and refers the reader to other reference books. I quite agree with this approach in a book such as this. However, it is a pity that some of the discussion on the relevance of anatomy to the aetiology of pathology isn't more fully developed.

The biomechanics of the spine is a vital element in understanding, not only the causation and management of the degenerative spine, but also in understanding spinal trauma and the logic of fixation. The chapter sets out to show how the knowledge of biomechanics is utilised in clinical practice rather than to set out the fundamentals of biomechanics. Inevitably the opinions were selective, and probably inevitably more directed towards the biomechanics of trauma than of the developmentally abnormal or degenerative spine. Overall the chapter gave a good feel of the development of biomechanics in relation to spinal pathology and as elsewhere in the book, directs the reader to a comprehensive selection of references for further and more specific reading. The aim was right to define the problem anatomically and bio-mechanically and then apply to the clinical situation.

The authors found the concept of 'instability' of the vertebral column a difficult concept, both in definition and application. However, this is inevitable on a field where there is no satisfactory definition that covers all eventualities, we are all guilty of making the definition fit the pathology.

The heart of the book is made up of chapters on specific clinical conditions that inevitably present to the spinal surgeon, and as such are seen from the surgeon's viewpoint. However, the opinions are built-up of a lifetime of experience in the neuro-surgical/spinal environment and concentrate more on the primary presentation of pathology rather than the reconstruction of the spine, or the manage-

ment of the inevitable failed back. Some of the opinions are set out in an individual manner, for example that discography has no place in the investigation of back pain, that some forms of treatment have no place, for example epidural injections or micro-discectomy. These are all views which are open to discussion and disagreement. This is what I really liked about this book, that there were undoubtedly times when I disagreed violently with the authors, but at least I knew where they came from and would love to sit down and have a constructive argument. Opinion is always worthwhile, but it is much more stimulating where there is room for disagreement.

I searched in vain for a chapter on the examination of the spine; in this area a carefully taken history and careful examination is probably of more value than any investigation undertaken subsequently.

The book is completed by an excellent chapter on surgical approaches to the spine, not necessarily approaches that I would favour. However, the techniques are beautifully described and illustrated, nowhere better is the author's experience illustrated than in this chapter, good advice and warnings masquerading as 'technical considerations'. The book itself is beautifully laid out and illustrated, and the X-rays, which are often so poorly reproduced, have obviously been very carefully chosen and enhanced. Clinical material is supplemented by beautiful and simple drawings.

To really enjoy this book you need to be an enthusiast for the subject, fascinated by the problems presented by spinal disorders and to have developed your own opinion. If this is the case however, you will enjoy this book, take it away with you on holiday and have a good read. You will certainly learn more about the subject and on the next ward round, have more than enough ammunition for an interesting and stimulating discussion.

Tim Morley

Consultant Orthopaedic Surgeon
The Royal National Orthopaedic Trust, Brockley Hill,
Stanmore, Middlesex HA7 4LP

Encyclopaedia of Neuroscience

Edited by G Adelman and BH Smith

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The first edition of the *Encyclopaedia of Neuroscience* was published in 1987. This is the Second Edition, published by Elsevier Science and is available in both electronic (CD-ROM) and print forms. The Encyclopaedia is dedicated to Frank Schmitt who was the Chairman of the Massachusetts Institute of Technology Neurosciences Research Programme, set up in 1962, in order to establish an inter-disciplinary study of the nervous system and behavioural processes from the lowest levels to the highest levels. In other words to bridge the intellectual and professional gaps between neural sciences and behavioural sciences. This encyclopaedia is an attempt to provide access to the diverse specialities involved in Neuroscience.

Of course it is impossible to produce a fully comprehensive summary of every aspect of neuroscience but these two volumes contain short introductions by acknowledged experts (together with references) which will prove invaluable to undergraduates, post-graduates and established scientists alike.

Obviously, the readers of this Journal being intelligent, motivated and well read would welcome a book which deals widely outside the immediate speciality of the spinal cord. However, equally obviously the readership would like to know how well the spinal cord is dealt with in this encyclopaedia. There are several excellent articles including the organisation of the spinal cord which is an historical paper, the dorsal horn of the spinal cord and the ventral horn of the spinal cord dealt with separately, spinal cord cell cultures, spinal injuries, and spinal roots. Spinal cord injuries are obviously dealt with in terms of an overview rather than a comprehensive review, but there are references which point the reader to management of the neurogenic bowel in patients with spinal cord injury, the consequences of spinal cord lesions, orthopaedic and neurological aspects of spinal cord disease and injury, suppression of spasticity and urinary tract infection. Surprisingly enough, there is no mention of spinal shock.

The development of new and powerful tools of investigation means that we have learned more about the organisation and working of the nervous system in the last two decades or so than in all of the preceding history of science. This explosive growth will certainly continue and will make it almost impossible to keep up to date not only in one's own field but also to be knowledgeable in the field of Neuroscience as a whole. The *Encyclopaedia of Neuroscience* is an authoritative source of information and the availability of the Encyclopaedia on CD-ROM will serve as the foundation of a neuroscience data base which can be revised and updated. As it stands now, the Encyclopaedia contains more than 800 articles written by more than 1000 contributors. The articles are aimed at a reasonably broad audience so that the Encyclopaedia serves not only as a ready reference book, but even more importantly as a source of information on subjects outside one's immediate speciality.

The book is beautifully produced with good figures and tables. It is an essential reference book for any Neuroscientist including any clinician whose interests include the nervous system.

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