Book Reviews


This book is a recent addition to the neuroanaesthetic literature. In 480 pages the authors, under the editorship of the well-known American neuroanaesthesiologist E.A.M. Frost, attempt to cover all aspects of neuroanaesthesia and neurological intensive care. In part they succeed.

Following a witty and perceptive foreword which charts the history of neuroanaesthesia, the book is divided into five major sections. These are: a review of cerebral physiology, descriptive chapters of neurosurgical procedures, the management of central nervous system trauma, intensive care, and finally, cerebral death.

We are uncertain as to whom this book is directed. If it is directed at practising neuroanaesthetists, why are the major chapters concerning anaesthesia written by a neurosurgeon? It is unfortunate that this editorial decision is compounded by factual errors. For example, the assertion is made that topical cholinesterases act at the end plate. Additionally, a recommendation is made against the use of precurarisation before the use of succinylcholine because of "marked immediate potentiation of neuromuscular blockade". If the book is directed at practising neurosurgeons, then it provides a useful summary. If the book is directed at departmental libraries, then it fails because the references are incomplete and not current, even allowing for publication time.

Despite these problems, certain chapters are excellent. Those on spinal cord trauma, peripheral nerve surgery and postoperative intensive care are comprehensive and well written. Unfortunately, other chapters suffer in comparison. That on posterior cranial fossa surgery focuses almost exclusively on procedures done with the patient in the sitting position. There is no discussion of determination of surgical position. The chapter on pediatric neurosurgery attempts to review all commonly performed procedures in a manner more suited to a manual of anaesthetic techniques.

"Just as there is no standard central nervous system lesion, there is no single best choice in neuroanaesthesia." Unfortunately the same can be said for neuroanaesthesia textbooks. We cannot recommend this book as the basic text for anaesthesia residents. However, neurologist and neurosurgeons interested in neuroanaesthesia will find the book of use.

C.J. Eagle,
J.M. Davies,
Calgary, Alberta

A BOOK REVIEW


Some may find it difficult to understand how 354 pages can be devoted to a review of the neuromuscular junction itself. However, a brief inspection of this book will illustrate the complexities of neuromuscular structure, function and pathology that are current and important. This multi-authored volume reviews in depth the anatomy, physiology and pharmacology of the end plate and relates these to the pathological processes affecting the structure.

An interesting historical review of the development of knowledge of the neuromuscular junction leads off, followed by detailed and well illustrated studies of the light and electron-microscopic features of the end plate. Very detailed descriptions of current information and hypotheses of how neuromuscular transmission occurs are provided in the chapters on physiology and pharmacology. There are full descriptions of how the cholinesterases, depolarizing and non-depolarizing drugs and anticholinesterases act at the end plate.

There is a chapter on the effects of nerve injury that seems a little out of place in a review of the neuromuscular junction. It is more concerned with the effects of denervation on muscle function than on the end plate.

Finally are the two chapters dealing with clinical disorders of neuromuscular function. There is a detailed discussion of myasthenia gravis by Donald Sanders which covers the pathogenesis, clinical diagnostic features and management of the disorder fully and accurately. Not quite so successful is the chapter on miscellaneous neuromuscular disorders. It describes other diseases of the neuromuscular junction (myasthenic syndrome, congenital myasthenia and botulism) and then rather loosely includes a good deal of information on drugs, toxins and venoms that remain to be better defined in the light of our newer knowledge and ability to understand altered neuromuscular function.

This book is a comprehensive, very detailed and thorough look at the mammalian neuromuscular junction. It will be used mainly as a reference source for a basic understanding of the structure and function of the end plate. It will appeal particularly to pharmacologists and physiologists, but should be familiar territory for anaesthetists and clinicians dealing with neuromuscular disorders.

John G. Humphrey,
Toronto, Ontario

THE SUBCORTICAL REGULATORY MOTOR SYSTEM IN DEVELOPMENT AND ITS DISORDERS. 1980. By Ivan Lesný. Published by Acta Universitatis Carolinae, Medical Monograph 96. Univerzita Karlova, Prague, Czechoslovakia. 74 pages. $8 Cdn. approx.

Professor Ivan Lesný, of the Charles University Medical School in Prague, Czechoslovakia, is one of the foremost elder paediatric neurologists in Europe and one of a very few from an eastern European country who has been an unofficial liaison with the western world. He was a special guest at the 1984 meeting of the Canadian Association of Child Neurologists in Edmonton and was there acclaimed an honorary member of the Association.

This little monograph is a summary of Professor Lesný's original contributions to an understanding of motor function in infancy through his personal clinical observations and analyses over the past 40 years. While one might question the bases for some interpretations, it is extremely refreshing to consider other explanations which, although they may represent a dogma in eastern Europe, are at least a different dogma than our own western assumptions and allow us to think about the meaning of observations from a different perspective.

The observations themselves are now generally accepted as valid and reproducible in all parts of the world, but many