Book Reviews

DRUG FOR THE TREATMENT OF PARKINSON'S DISEASE. 1989. Edited by D.B. Calne. Published by Springer-Verlag. 559 pages. $271 Cdn. approx.

This book is a multi-authored review of the medical management of Parkinson's disease using medications, up to early 1989. The strong points are the thoroughness of the review of pathology, neurochemical changes relevant to pharmacology, differential diagnosis, description of longitudinal trials of anti-oxydant agents, pharmacology of L-Dopa and its adverse side-effects. An extremely detailed review of lisuride is enclosed.

The weak points are the strictly pharmacological approach to a complex medico-social illness where adequate information to patients and families regarding prognosis, potential side-effects of available pharmacological treatments, importance of exercise programs and availability of physiotherapy, occupational therapy and speech therapy for specific functional problems have not been dealt with. In terms of pharmacological management, there is a relative paucety of suggestions for autonomic dysfunction, specifically orthostatic hypotension, urological as well as gastro-intestinal dysfunction. New publications have already appeared, such as the results of the DATATOP study in the New England Journal edition of November 16, 1989, which changed the management of Parkinson's disease radically. Considering the steep price of the book ($230.00 US) its lack of direct advice for day-to-day treatment of patients, it cannot be recommended for clinicians who deal with Parkinson's disease only occasionally. On the other hand, because of the excellent reviews on specific topics such as pathology in chapter 2, dealing with pathological sub-types of Parkinson's disease with particular emphasis on dementia aspects of the disease, the discussion of compensatory changes in the neurochemistry review found in chapter 6, the completeness of the review of differential diagnosis found in chapter 8, the discussion of study design for new clinical trials found in chapter 9, 10 and 11, the very detailed review of L-Dopa pharmacology in chapter 13 and its adverse side-effects in chapter 14, it is a precious tool for neurologists seeing many patients suffering from movement disorders, including residents and fellows. It is recommended thus to movement disorder clinics as a standard reference book.

Serge Gauthier
Montreal, Quebec

MEDICAL THERAPY OF ACUTE STROKE. 1989. Edited by Mark Fisher. Published by Darcel Dekker Inc. 294 pages. $82 Cdn. approx.

Although several excellent monographs dealing with the management of epilepsy, movement disorders, and migraine have been published in the last decade, the rapid, and on occasion controversial therapies reported for patients with acute stroke has unfortunately received little critical attention. In this volume, the second in a series titled "Neurological disease and therapy", M Fisher and 21 other well established researchers in the field of cerebrovascular disease have put together a comprehensive monograph on the management of stroke in 1989. The book is divided into three major sections.

1) Clinical and basic mechanisms (CH: 1-2).
2) Therapies (experimental and presently in use) for T.I.A.s, ischemic stroke and intra-cranial hemorrhage (CH: 3-14).
3) Practical approach to the evaluation and management of suspected acute stroke (CH: 15).

The conflicting and often confusing subject on the role of anticoagulants in acute stroke (Chapter 4) is very well reviewed and the indications for anticoagulation in T.I.A. and cerebral infarction are clearly defined. Likewise the chapter on the role of anti-platelet agents in T.I.A. and cerebral infarction is also well written. In addition to aspirin, other anti-platelet agents such as sulfinpyrazone, dipyridamole and ticlopidine are also reviewed. The reader gets a good "inside" look at such new agents as calcium entry blockers, neuropeptides and thrombolytic therapies and hemorrheological aspects of stroke, subjects that have received little attention in the non-stroke literature. Although pertinent experimental research is reviewed in most chapters, a chapter dealing exclusively with current exciting research, such as the role of glucose or body temperature on development and protection from ischemia, would have been useful.

Overall the book is well written, has a good flow from one chapter to another, and the references are up to date and extensive though not overwhelming. The only criticism that might be entertained is that while percutaneous transluminal angioplasty is extensively reviewed, the editor fails to include a chapter on the role of carotid endarterectomy in the management of acute stroke. Even in a book entitled "Medical management of acute stroke" it would not seem out of place to offer guidelines and limitations for the use of this important procedure for patients with T.I.A.s and acute stroke.

This book is recommended for the general neurologist, internist and indeed all physicians who come in contact with the acutely ill stroke patient.

Ashfaq Shuaib
Saskatoon, Saskatchewan

FUNDAMENTALS OF EEG TECHNOLOGY. VOLUME 2. CLINICAL CORRELATES. 1989. By Fay S. Tyner, John R. Knott, W. Brem Mayer Jr. Published by Raven Press. 302 pages. $70 Cdn. approx.

This book comes as the companion text to Fundamentals of EEG Technology Volume 1 Basic Principles and Methods by the same authors published by Raven Press 1983. It is intended to provide a comprehensive summary of clinical material the accomplished EEG technologist should understand, and as a guide for the appropriate EEG procedures to be followed for the more common clinical problems encountered. Both of these goals are quite adequately met in a clearly written concise text.

The first chapter provides a thorough review of the anatomy and physiology of the nervous system, including some illustrations of anatomy displayed on CT and MRI scans. The beginning technologist will find the amount of material a bit overwhelming but the clarity of presentation should be encouraged and it is this detail that will make this text a worthwhile reference. Concrete guidelines are given in Chapter 2 for the necessary clinical documentation to be prepared by the technologist to accompany the EEG.

The next 8 chapters deal with most categories of clinical problems which present in an EEG laboratory including seizure disorders, brain tumours, cerebrovascular disorders, metabolic and toxic encephalopathies, infections of the central nervous system, degenerative diseases, head trauma, and headache. In each area a summary of the common syndromes or diseases is given, several samples of typical EEG findings in the conditions, and where appropriate CT scans have been shown to illustrate the anatomy of the disorders. The chapter on seizure disorders is appropriately detailed, given the importance of this area in EEG in 1989. A good discussion of the current classification system of the International Federation for both seizures and the Epilepsies is given. The authors have also provided several good illustrations of ictal EEG recordings, an area often omitted in previously published texts. The chapter on infections includes clear up to date information including AIDS, as well as specific recommendations for precautions to be taken under various infectious conditions.

The only major application in clinical EEG that was omitted are psychiatric conditions. In many laboratories patients with such diagnosis are commonly referred and the technologist needs to have some understanding of the range of psychiatric conditions and the questions the EEG will be used to answer, and I am sorry to see this topic neglected.

The chapter on brain death and electrocerebral inactivity is written carefully with an excellent summary of the historical evolution of this concept and the role the EEG plays in this area. Some details of technical nature are provided, which are also covered in Volume I, but given their importance, it seems appropriate to reiterate them here.

In conclusion, this book is highly recommended as a reference text for all EEG laboratories, and for EEG technologists. It provides a comprehensive and clearly written summary of most clinical areas and would be valuable to neurology residents and medical students with an interest in these areas. The clinical summaries and basic science chapters could also be recommended for neurological nursing students. The authors are to be commended for a thorough, careful summary of this field, and for providing a text that all in the EEG field will welcome as a current reference and review.

Sherrill Purves
Vancouver, B.C.

FETAL NEUROLOGY (THE INTERNATIONAL REVIEW OF CHILD NEUROLOGY). 1989. By Alan Hill and Joseph J. Volpe. Published by Raven Press. 317 pages. $81 Cdn. approx.

This volume is divided into three sections; the first deals with antepartum fetal assessment, the second with intrapartum fetal assessment, and the third with major specific fetal conditions. The one hundred forty three page first section on antepartum fetal assessment is the longest and has the most subsections (chapters).

In the section on antepartum fetal assessment there are good chapters on fetal behavior by Prechtl and fetal movement monitoring by Rayburn. Chapters on the nonstress test and the contraction stress test by Smith and Phelan are informative and well done. The two chapters by Smith and Phelan have an excessive number of acronyms, a minor criticism. The antepartum assessment section also includes a chapter outlining a fetal biophysical profile comprised of five variables which have been devised to detect the fetus in distress. This section by Brar and Platt concludes "a normal test is a much better predictor of normal fetal condition than is the abnormal test a predictor of fetal compromise". Concluding the antepartum section is a chapter by Fitzgerald and Stuart which reviews fetoplacental and uteroplacental blood flow in pregnancy as assessed by continuous wave and pulsed wave doppler ultrasound. These techniques may assess the umbilical artery, uterine spinal arteries, fetal aorta and show promise in detecting fetal cerebral blood flow as noted by Hill and Volpe.

In the section on intrapartum assessment, diagnosis and treatment of fetal distress is described by Schifrin. The classic signs, electronic monitoring, fetal heart rate monitoring, and fetal acid base balance are all discussed as indicators for urgent surgical intervention. As Volpe and Hill comment, the problem is these assessments reflect conditions at a single point in time or at best a brief period of time. A chapter by Low reviews clinical, blood gas and acid base indicators of fetal asphyxia and correlates them with subsequent neurologic sequellae such as mental retardation, motor deficits, and epilepsy. The observation is made that 80% of children who experience significant hypoxic ischemic insult do not develop neurological abnormalities.

A chapter on ultrasonic fetal neuro-opthalmology contains some extraordinary new data and chapters on the neurosurgery of the fetus and management of fetal hydrocephalus and fetal spina bifida are brief and well done. The final chapter on the influence of the brain on normal and abnormal muscle development by Jacob and Sarnat emphasizes the role the central nervous system has on the development of normal muscle, muscular dystrophies, and congenital myopathies.

The commentaries by Hill and Volpe are informed, pertinent and add new information about techniques and perspectives that are discussed in the chapters. They have contributed immensely to the value of the volume by their editorial efforts but also by their guiding comments at the end of each chapter.

Overall this volume is a well organized authoritative review of the assessment of fetal neurological functioning prior to and at the time of birth. It will be valuable reading for pediatric neurologists and pediatric neurosurgeons, and the neonatalogists, pediatricians, and obstetricians. Neurologists in general, who are asked to assess newborns will profit from reading this book as well.

Gordon V. Watters
Montreal, Quebec