

cortex. He addresses the neuromuscular junction in comparison to central axodendritic connections as well.

This small volume of essays is as important from the historical perspective in developmental neuroscience as from the perspective of the career scientific contributions of the author and his interpretation of them. It is well written and easily comprehensible to clinical neurologists, concise, interesting, and I recommend it to paediatric neurologists in particular, though with the caution that not all of the views put forth by the author are accepted as presented by all developmental neurobiologists.

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MAGNETIC RESONANCE IN EPILEPSY. 1994. By Ruben I. Kuzniecky and Graeme D. Jackson. Published by Raven Press. 361 pages. \$C143.00

This book is a new addition to the armamentarium of books on Magnetic Resonance Imaging, and fills a unique niche concentrating on the application of Magnetic Resonance to Epilepsy.

The book has been divided by the authors into 3 sections: 1) Basic principles (of epilepsy, magnetic resonance, and neuroimaging of epilepsy, including the role of Single photon computed tomography and positron emission tomography). 2) Structural Neuroimaging (including chapters on brain anatomy written by Henri Duvernoy and disorders of neuronal migration and organization written by A. James Barkovich, as well as specific neuroimaging of epilepsy by region and in conjunction with specific syndromes (predominantly stroke, and infection). 3) New techniques and applications, including spectroscopy, high resolution imaging and functional MRI. The final chapter of the book, by Jean Aicardi, summarizes the current state of MRI in epilepsy.

Overall, the book is well written and illustrated, as well as extensively referenced. The images and line drawings are mostly of excellent quality, and reflect current state of the art imaging. The various planes of imaging are depicted by both MR images, anatomic images and line drawings, and give an excellent approach to brain anatomy. The section on neurosurgical applications deals mainly with nonmagnetic electrodes and stereotactic localization; no mention is made of intraoperative MRI (either in this section or in the section on new applications and techniques). It does however, cover the postoperative appearance of the brain fairly well.

The chapter on spectroscopy, includes the basic theory of spectroscopy. The various spectroscopic techniques are explained in detail, and the differences between the various nuclei used and the problems associated with each are dealt with reasonably in the text. The chapters on ultra high field (4.1 T) imaging (for both high resolution as well as functional MRI) show the potential for these to produce not only high resolution images but also accurate mapping of areas of brain activation. The images in this section are of excellent quality, especially given the rapid developments in this area in the last year.

The book will appeal to a broad range of clinicians – neuroradiologists, neurosurgeons and neurologists, and even neuropathologists. It is easy to read for the most part (the section on the physics of spectroscopy is perhaps the only exception to this, reflecting the complexity of the subject). Sections from it will no doubt soon need updating because of the volume of new data (such as those on functional imaging, and intraoperative applications), but the chapters on imaging, epilepsy terminology, and correlative neuroanatomy will

remain an invaluable addition to the library of neuroradiologists and radiologists with a special interest in epilepsy.

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MANUAL OF NEUROLOGIC THERAPEUTICS. 5th Edition. 1994. Edited by Martin A. Samuels. Published by Little, Brown and Company Medical. 451 pages. \$C41.00

This manual is the latest edition of the spiral bound “pocket” manual designed to aid in the diagnosis and treatment of neurologic conditions. The manual is written as a tool for the non-neurologist involved in the primary care of neurologic patients. Like most general neurology texts this manual is multi-authored with the contributions of various experts being coordinated by an editor.

The book contains 17 chapters divided into two sections with the first section being symptom oriented and providing approaches to the common problems of coma, headache, intellectual dysfunction, dizziness, backache, epilepsy, brain death and the persistent vegetative state. The second section is organized by disease etiology (infectious disease, trauma, demyelinating disease, neoplastic disease, stroke, toxic and metabolic disease) or by anatomy (peripheral nerve and muscle, basal ganglia). In addition, a chapter on psychiatric conditions as well as one on the medical complications of chronic neurologic disease are included in the second section. Each disease is described in terms of its clinical presentation, the use of special diagnostic tests, and therapeutic options. The information is presented in concise paragraphs, lists, or tables allowing for easy quick-reference. While the manual attempts to be comprehensive, this varies considerably from chapter to chapter. For example, the chapter on intellectual decline includes descriptions of rare illnesses, such as Marchiafava-Bignami disease, while the chapter on stroke does not cover fundamental topics such as arterial dissection or vasculitis causing stroke. The clinical descriptions of diseases are succinct but occasionally important diagnostic information is left out. An example of this is the clinical description of neurosyphilis which does not include Argyll Robertson or tonic pupils. Practical information is provided on the special diagnostic tests available including the limitations of these tests. Most of the manual is dedicated to treatment options and for the most part provides comprehensive practical information. All the standard treatment options including dosages are provided. Side effects and complications are described, including laboratory parameters that need to be followed. An attempt has been made to include the more recent developments in neurologic therapeutics. The new anticonvulsants are introduced but important detail such as felbamate’s potential for causing aplastic anemia is missing. However, sufficient practical information on tacrine, the latest drug released to slow the progression of Alzheimer’s disease, is provided for inexperienced clinicians.

Overall this manual is an excellent resource providing valuable information on the diagnosis and treatment of neurologic conditions. I highly recommend it for internists, neurology residents, and general practitioners involved in the primary care of neurologic patients.

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NEUROLOGICAL COMPLICATIONS OF CANCER. 1995. Edited by R.G. Wiley. Published by Marcel Dekker, Inc. New York. 568 pages. \$C241.00

In recent years, as the diagnosis and treatment of cancer has improved, neurological complications of cancer and of cancer

treatment have become increasingly frequent. Therefore, the field of neuro-oncology has come into its own as a recognized area of clinical specialization. It is therefore very appropriate for a major new textbook of Neuro-Oncology to be published at this time.

The stated goal of "Neurological Complications of Cancer" is 'to provide a practically useful reference source for all professionals treating cancer patients and an introduction to clinical trainees.' The authors have succeeded admirably in this goal.

The book is divided into three main sections: Specific Management Problems, Neurological Complications of Anticancer Therapy and Neurological Complications of Specific Neoplasms.

Specific Management Problems include brain metastases, spinal metastases, leptomeningeal metastases and peripheral nervous system complications in cancer patients. These chapters contain very thorough reviews of the topic under discussion with extensive references. The chapter on primary malignant brain tumors is an excellent introduction to the topic suitable for general neurologists but is insufficient for medical oncologists or radiation oncologists who must treat these patients. The chapter on cerebrovascular complications of cancer is particularly well written, as is the chapter on the use of glucocorticoids in neuro-oncology.

Neurological Complications of Anticancer Therapy includes complications of radiotherapy, chemotherapy and immunotherapy. The chapters are comprehensive and clearly written.

Neurological Complication of Specific Neoplasms included descriptions of the common neurological complications of a wide variety of primary malignancies including all the major types of solid tumors, leukemia and lymphoma and childhood cancers.

The main strengths of this book include its clear organization, both overall and within each chapter. The clarity of the writing makes it easy to read. Tables are used extensively where appropriate. The number of illustrations is not large, but those included clearly illustrate the topic under discussion.

The main drawback of the book is the amount of duplication. Often the same topic is discussed in two or more chapters of the book, and cross-references are usually lacking. For example, there is an incomplete discussion of chemotherapy induced peripheral neuropathy in Chapter 4 (Peripheral Nervous System Complications in Cancer Patients) and a much more complete review of this topic in Chapter 11 (Neurological Complications of Chemotherapy). Similarly, there is a brief discussion of Lambert Eaton myasthenic syndrome and paraneoplastic encephalopathy in Chapter 13 (Neurological complications of Lung Cancer) and a more complete discussion in Chapter 8 (Management of Paraneoplastic Neurological Syndromes). In neither case, were the two discussions cross-referenced. Readers must be careful to check the index to make sure they have read all sections of the book pertinent to a topic which they may wish to review.

I would recommend this book to neurologists, radiation oncologists and medical oncologists. It is also a valuable reference for residents training in these disciplines.

*Dorcas Fulton,
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SINGLE FIBER ELECTROMYOGRAPHY: STUDIES IN HEALTHY AND DISEASED MUSCLE. 2nd Edition. 1994. By Erik Stålberg and Joze Trontelj. Published by Raven Press. 303 pages. \$C103.00

The second edition of "Single Fiber Electromyography" (SFEMG) is a welcome update of the standard reference text for anyone using single fiber electromyography in their laboratory. This updated text continues the excellent traditions set in the first book

by reviewing the basic physiology and pathophysiology underlying the methods in the text, but primarily single fiber electromyography. The book then continues with SFEMG findings in different pathological conditions. Much information discovered since publication of the first edition has been incorporated in the new volume. Some sections of strictly historical interest have been included and provide an interesting contrast to modern techniques and equipment. Reading the book provides a historical review of development of electromyographic techniques in the last twenty years. Validation of the methodology is found in the reference values obtained from many investigators when compared to the Stålberg data.

This book is highly recommended to any electromyographer performing electromyographic examinations. A thorough comprehension of the principles laid out in this book ensures an understanding of the field of electromyography. To those performing single fiber studies, this book is an essential reference material which should be reviewed and kept in the laboratory. Anyone who wishes to do single fiber electromyography should adhere to the steps laid out in the book if they wish to perform valid studies. To anyone teaching the methodology, this volume is the gold standard. The book can be reread many times, as the information is densely compressed, and elegantly presented. I would urge all electromyographers to read this book. I congratulate the authors on a fine update.

*Vera Bril
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LEFT BRAIN – RIGHT BRAIN DIFFERENCES. 1993. By James F. Iaccino. Published by Lawrence Erlbaum Associates, Publishers. 284 pages. \$C24.50

Few aspects of neuroscience research have captured the popular imagination in the way that reports of differences between the cerebral hemispheres have. Several books offer to teach us how to use both sides of our brains to good effect. Even cartoonists take for granted that readers have heard of this dichotomy. James F. Iaccino's affordable volume subtitled "Inquiries, Evidence, and New Approaches" presents an overview of research in the field of cerebral asymmetries. Introductory chapters review anatomical and functional differences between the left and right hemispheres in humans and in animals. A second section discusses what psychiatric and neurologic conditions including commissurotomy can teach us about brain asymmetries. Attention then turns to studies on hemispheric specialization in normal subjects with particular reference to the confounding effects of handedness, sex, and development. A concluding chapter suggests new techniques that may be useful in future studies. Iaccino's target audience seems to be psychology students although others will find material of interest here.

A refreshing feature of this book is the use of questions as chapter titles. "Are Cerebral Asymmetries Unique to the Human Species?" and "How are Asymmetries Studied in the Normal Brain?" are examples. As Iaccino's own studies have often involved college undergraduates, he seems much more at home discussing research done in normals than in discussing clinical conditions. His description of alexia without agraphia, for example, is ambiguous and unlikely to help the student understand the condition. Iaccino attributes depression to right hemisphere dysfunction and cites a few studies supporting this notion, ignoring several investigations suggesting that depression is more of a problem after left rather than right hemisphere strokes. Although his discussion of techniques likely to prove useful in the future includes PET scanning, functional MRI is conspicuously absent.