

Correspondence

To the Editor:

I was very interested in reading the article "The early development of neuroscience in Canada" by H.H. JASPER (CJNS 1985, 12:221-229), partly because I am familiar with some of the people mentioned in the article. For example, in the photograph which appears as Figure 2 on Page 225, I could recognize, at first glance, Dr. Penfield (in the middle of the second row) and Dr. Yi Cheng Chao (second from right in the fourth row). I still keep a picture which was taken with both of them when Dr. Penfield visited Tianjin in 1961, and I knew Dr. Chao quite well. Therefore I can say with certainty that Dr. Chao was mistakenly identified as C.L. Lee in the legend which accompanies Figure 2.

Dr. Chao was the Rockefeller travelling fellow from China and was working at the Montreal Neurological Institute in 1938

and 1939 at the time this picture was taken. I have shown this picture to Dr. Chao's son and to his widowed wife. They have both established that the individual in the picture is Dr. Chao and not C.L. Lee, and they hope that this error can be corrected, if possible.

*Ji-Zuo Wang
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Editor's Note:

We have confirmed with Dr. Jasper that Dr. Yi Cheng Chao was the individual appearing in this photograph. The Journal is grateful to Dr. Wang for bringing this error to our attention.

Book Reviews

TEXTBOOK OF NEUROLOGICAL NURSING. By Phyllis J. Pollett and Mary T. O'Brien. Published by Little, Brown & Company Boston/Toronto. 1985. 735 pages. \$39 Cdn.

The authors indicate that "the purpose of the book is to provide the professional nurse with a knowledge base from which to draw in planning care for the neurologically impaired adult". Although intended particularly for baccalaureate or graduate level nurses, it will be useful too for all nurses who care for this type of patient.

The book is divided into five parts and twenty-five chapters. The opening section covers neurological anatomy and physiology in some depth and concludes with chapters on the physical examination and on diagnostic studies. The remainder of the text provide a comprehensive and current account of common diseases of the nervous system with the related treatment and nursing care. Many excellent illustrations and tables complement the content. A useful twenty-four page glossary is included.

The book would have been enhanced by a chapter dealing with pain and its management, by better illustration of diagnostic procedures and by reference to digital subtraction angiography and to magnetic resonance imaging. The nursing care of the postoperative carotid endarterectomy and extracranial-intracranial bypass patient deserves more emphasis as do the psychosocial factors involved in the care of patients and their families.

Notwithstanding those deficiencies, the textbook should be of great assistance to those nurses planning care for the neurological patient.

*Doris Annear
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THE PHYSIOLOGICAL AND TECHNICAL BASIS OF ELECTROMYOGRAPHY. By William F. Brown. Published by Butterworth, 1984. \$59.95

In preparing this volume, Dr. Brown has defined a hiatus in the peripheral electrodiagnostic literature, and then has pro-

ceeded to fill it to near perfection. Since 1980 several general textbooks of electromyography and electrodiagnosis have been published including Ludin's "Electromyography in Practice" (Thieme-Stratton, New York, 1980), Ludin and Tackmann's "Sensory Neurography" (Thieme-Stratton, New York, 1981), Goodgold and Eberstein's third edition of "Electrodiagnosis of Neuromuscular Diseases" (Williams and Wilkins, Baltimore, 1983) and pre-eminently, Kimura's excellent "Electrodiagnosis in Diseases of Nerve and Muscle" (F.A. Davis, Philadelphia, 1983). All of these have been conceived as "hands-on" guides to the various electrodiagnostic procedures conventionally grouped under the term "electromyography". None has strongly emphasized the physiological under-pinnings of the assumptions inherent in the interpretation of results in peripheral electrodiagnosis. Although the volume edited by Sumner, "The Physiology of Peripheral Nerve Disease" (W.B. Saunders, Philadelphia, 1980) appears to have been intended to occupy this ground, much of its content does not bear directly on what goes on in the typical EMG laboratory. Published in 1980, it has begun to show its age. Dr. Brown's new book seeks to fill this void by emphasizing peripheral nerve physiology as it bears directly on peripheral electrodiagnosis and as such, serves as a superlative companion to texts such as Kimura's.

Beginning with a comprehensive and comprehensible review of the generation of normal transmembrane potentials and normal impulse conduction in nerve, Dr. Brown goes on to discuss what is known about pathological impulse conduction. His discussion of the techniques employed in conventional and more esoteric nerve conduction studies correctly underlines the need for vigor in the application of each technique. Even with most painstaking care, electromyographers are left with "numbers" which are not as "hard" as they would like. The author's sobering tough-mindedness concerning the limitations of the techniques employed is an especially refreshing theme throughout the book.

Needle electromyography is given similarly thorough coverage, as are tests of neuromuscular transmission and cranial nerve electrodiagnosis. However, somatosensory evoked potentials, single fibre EMG, late response studies and "central" EMG are discussed somewhat less completely. Each of these topics

has given rise to an enormous literature, and the techniques employed are still less widely applied in electrodiagnostic laboratories than the other techniques which Dr. Brown has so admirably reviewed. Accordingly this economy of emphasis does not seriously undermine the value of the book in general.

"The Physiological and Technical Basis of Electromyography" is written with enviable fluency. Its illustrations are clear although the captions are occasionally confusing. The publisher has produced a smoothly-flowing format with a minimum of aggravating typos.

Without hesitation, I would suggest to any clinical electromyographer, that this book will provide what its title promises and recommend that space be made for it on the laboratory shelf next to "Kimura". However, the book is likely to be of a too narrowly restricted focus for the clinician or neuroscientist not directly involved in clinical electromyography.

*George Elleker,
Edmonton, Alberta*

THE CEREBRAL VENOUS SYSTEM AND ITS DISORDERS. By John P. Kapp and Henry H. Schmidek. Published by Grune and Stratton Inc. 637 pages. \$120.25 (Cdn.)

This is a multi-author volume which attempts to collect and organize current knowledge about the venous system of the brain and its disorders. Slightly less than half the volume is devoted to basic science and the remainder to clinical, surgical and pathological aspects of disease.

The book is produced on high quality paper and is particularly noteworthy for the high standards maintained for all illustrations, including drawings, radiographic reproductions and photographs of clinical material. The chapters on anatomy and physiology are particularly well written and clearly reflect, with up to date references, our current knowledge in this area.

The chapters related to clinical topics are of more variable quality and should probably have been more tightly edited. Some of the difficulty arises here because we are dealing with a relatively rare group of disorders and it is impossible for any individual to have more than a limited experience with any one. The frequency of Sturge-Weber syndrome almost certainly does not warrant it a separate description by three different authors.

The chapter on Cerebral Venous Thrombosis is comprehensive and well referenced. As it was written before widespread availability of digital intravenous angiography, the role of this technique in the investigation of cerebral venous disorders is not mentioned. It has now become obvious that this is the technique of choice for investigating such patients and it allows one to obtain higher quality pictures of the venous side of the circulation than conventional angiography, in a less invasive fashion. The chapter on cerebral venous malformations provides a wonderfully illustrated description of the radiological anatomy in a group of patients studied by the authors. There is an overemphasis on the association between carotid artery disease and central retinal vein occlusion, one that is not borne out in recent series.

Overall I feel this book serves a useful purpose by collecting current information about the cerebral venous system and its

disorders in one volume. I would recommend this book for libraries, or Neurologists with a special interest in cerebrovascular disease.

*Joseph G. D'Alton,
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MEDICAL PHYSICS, VOL. 3: SYNAPSE, NEURON AND BRAIN. By Damask, A.C. and Swenberg, C.E. Published by Academic Press, pp. 337. \$93.25.

This volume, and presumably the other two in the series, strikes a blow for informed generalism at a time when increasing specialism may make us unaware of the physical principles upon which many of the assumptions and techniques of neuroscience are based. The increased use of physically-based diagnostic procedures in neurology also makes this volume timely.

Topics covered range from the molecular events at synaptic receptors through to new techniques for brain study such as PET and NMR. Other neurological diagnostic tools which are covered in detail are EEG, visual and auditory evoked potentials. The text is illustrated with numerous figures, some of which would have benefited from higher magnification or more explanatory legends. Each chapter is referenced, mainly to secondary sources, up to 1982. The authors' enthusiasm and eclecticism make this a stimulating volume to dip into; for example, a "note added in proof" refers in detail to a new anthropological hypothesis for the origin of handedness — this in a biophysics text!

A necessary weakness in a book which crosses disciplinary boundaries is a tendency towards superficiality and oversimplification. As a neuroscientist, I was irritated to read Dale's law improperly interpreted, and I could not accept unequivocally the statement that "quanta are now identified with synaptic vesicles". Environmental effects on cortical neuron morphology were part of the justification for a detailed consideration of Rall's work, in which dendrites act passively, but the occurrence of dendritic spiking in cortical neurons received only a one-line mention without discussion of the functional implications.

Perhaps a physicist would be equally irritated by oversimplifications which I could not appreciate, but for me the most valuable aspect of this book was the collection within one volume of the physical and mathematical principles underlying topics such as statistical evidence for quantal release, analysis of membrane noise and NMR. The breadth of coverage makes this book a valuable resource, but it is unfortunate that a chapter on action potential and impulse transmission, needed to complete the coverage of cellular neuroscience, is to be found in Volume I.

The very high price for this volume, and the scattering of neuroscience topics between volumes, makes it unlikely that many individual neuroscientists will want to add it to their personal collections. The series is recommended as a valuable reference for institutional libraries.

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