eccentric "lone wolf" but worked alongside Frank Walsh in neuro-ophthalmology and Walter Dandy in neurosurgery. He did not like to travel, never attended medial meetings, chained smoked, dressed poorly, limped, spoke quietly and only took students if he liked them. His reputation however, was based on his remarkable diagnostic skill, keen observation and his influential book, "Diseases of the Nervous System in Infancy, Childhood and Adolescence" which was the leading text of pediatric neurology for generations.

Hans Zinsser was estimated by students to walk one to three miles during his energetic lectures. Although I have read Zinsser's autobiography, I never would have expected to see him in this volume, and it probably relates more to Aird having experienced his lectures at Harvard than to his studies on herpes encephalitis and syphilis. Because it is a very personal odyssey over the last half century, Dr. Aird can be forgiven a predominance of individuals from the University of California, San Francisco, and a tendency to shift the centre of American neurology from the eastern seaboard to the west coast.

I think all readers will be somewhat puzzled by a few that are included, and many who are excluded. Given those who were included why did we not hear of Joe Foley, J.C. Richardson, Roger Gilliatt, Frank Rose, W. Ian McDonald, Sir Hugh Cairns, Denis Williams, Wylie McKissock, P.K. Thomas, John Marshall, Bud Rowland, Bob Joynt, Howard Barrows, Jack Wisnant, Donald Baxter, Labe Scheinberg, Preston Robb, William Oldendorf, Bob Fishmann, Morris Bender, Milton Shy to mention only a few. It would be expected that anyone compiling a list of major contributors to neurology during the "flowering period" would create a personal and subjective list, but the high percentage of questionable inclusions, and the large number of surprising omissions makes this a very unbalanced book, to the point where it would be more appropriately titled "outstanding neurologists I have known" rather than the more ambitious "foundations of modern neurology".

It is interesting, and sometimes fun to read as a personal recollection of neurologists he knew much in the vein of Critchley's 1990 correctly titled "The Ventricle of Memory: Personal Recollection of Some Neurologists"[3] but it fails in living up to its title promise of outlining the foundations of neurology in this century.

References

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MRI OF THE SPINE. 1994. Edited by T.E. St. Amour, S.C. Hodges, R.W. Laakman and D.E. Tamas. Published by Raven Press. 865 pages. $C241.00

This text is a comprehensive review of MR imaging of diseases of the spine. The book contains 865 pages and the format consists of eight sections based on the disease group. Brief introductory chapters on MRI protocols, terminology and MRI appearances of pathology are included.

Each section has multiple chapters, each of which is intended as a self-contained discussion of a disease/disease group. The chapters are organized with an introductory unknown case to stimulate interest followed by a detailed review of the clinical, pathologic and radiologic features of the disease and a discussion addressing clinical and therapeutic issues and differential diagnosis. The images are of excellent quality and well labelled.

The text succeeds in the two goals set in the preface: (1) it provides accurate and comprehensive examples of the spectrum of MRI findings for a given disease, (2) it addresses clinical issues germane to MR interpretation in daily practice.

The greatest value of this text is found in the discussions where the author has described the role and limitations of MRI in diagnosis and incorporated clinical features to narrow the differential diagnosis. The text is practical in emphasis though those who have experienced numerous problematic cases in practice will appreciate that the rare and unusual are addressed with generous references.

The text would be of value as a reference for radiologists, nonradiologists and subspecialty trainees involved with MRI of the spine.

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PHYLOGENY AND DEVELOPMENT OF CATECHOLAMINE SYSTEMS IN THE CNS OF VERTEBRATES. 1994. Edited by W.J.A.J. Smeets and A. Reiner. Published by Cambridge University Press. 488 pages. $C150.00

This book is concerned primarily with the anatomy and function of brain catecholamine systems in each of the seven extant classes of vertebrates. Separate chapters review data on the development of the systems in those species where such information is available and on such topics as sex-specific characteristics of the catecholamine systems. A final chapter attempts to summarize the current concepts on evolution and function. The book grew out of a two day session on phylogenetic and developmental aspects of catecholamine systems which occurred during the 7th International Catecholamine Symposium, held in Amsterdam in June 1992. A useful index is provided.

In each of the chapters on anatomy and function, detailed maps of cell bodies and fibers immunohitochemically positive for tyrosine hydroxylase (TH) and dopamine (DA) are usually presented. In some instances data on staining for noradrenaline, dopaminebeta-hydroxylase, and phenylethanolamine-N-methyltransferease are also given, but these are generally less detailed. Five chapters deal with the distributions in mammalian systems, with separate ones being devoted to catecholamine systems in the midbrain plus hindbrain and in the diencephalon, while others discuss catecholamine innervation of the basal ganglia or cortex. The fifth is concerned with the existence and possible importance of telencephalic dopamine neurons in monkeys, humans and rats. The maps for noradrenergic and adrenergic systems are generally, as one would expect, more detailed in the chapters on mammals than in those on sub-mammalian species.

Most chapters also describe the relationship of the catecholamines to various functional systems, such as the olfactory, visual and motor, as well as possible interactions and colocalizations of the catecholamines with other neurotransmitter systems. In most cases, the possible interactions are described based only upon similar distributions but, in the case of the mammalian diencephalon, excellent summary tables are provided, with many of the reported interactions being supported by electron microscopy.

The chapters on ontogenesis are generally much less detailed than those on adult anatomy, with the rat and chick being clearly the most well studied species. Development of catecholamine systems in the rat is discussed in general terms in one chapter, with a second being devoted specifically to development of the hypothalamic systems and their influence on hypothalamic neuropeptide expression,

sexual differentiation and pituitary hormone secretion. The final chapter concludes that the brain catecholamine systems appeared very early in evolution and seem to play important roles in many brain functions but emphasizes the major differences in anatomy and distribution between different vertebrate classes and points out the relative lack of data on the noradrenergic and adrenergic systems as compared to the dopamine system.

The emphasis throughout is on the presynaptic catecholamine systems; postsynaptic receptors are rarely mentioned except in regard to dopamine receptors in birds and in the basal ganglia and cortex of mammals.

Researchers working on the anatomy of catecholamine systems in various vertebrates should find this a very useful reference book. Of particular interest to this reviewer was the emphasis on differences in anatomy and distribution in various classes or, within mammalians, in various species.

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ATLAS OF ADULT ELECTROENCEPHALOGRAPHY. 1994. By Warren T. Blume and Masako Kaibara. Published by Raven Press. 585 pages. $C129.00

In an era when we daily receive advertisements for new publications, "advances" and "updates" it may come as a surprise that someone has undertaken the task of producing a new atlas of one of the oldest investigative techniques in neurology. However, electroencephalographers familiar with the currently available (relatively few) atlases will recognize why Blume and Kaibara's volume is a welcome addition.

The ratio of illustrations (516) to pages (585) and number of references (58) testifies that this is an *atlas*, not a textbook, of EEG. The topics covered include artifacts, normal phenomena, interictal epileptiform abnormalities, seizures, nonepileptiform abnormalities and coma.

The illustrations have been reproduced with uncommon clarity. All of the EEGs are derived from scalp recordings using 16-18 channels (although many examples show only the relevant 8 or more channels).

The captions with each illustration are detailed, informative and reflect not only the authors' mastery of EEG interpretation but also the techniques of how to *teach* EEG. Emphasis is placed on a thorough understanding of basic EEG principles, particularly polarity. Considerable attention is given to "problem solving" EEG phenomena; i.e., what is the *state* of the patient? what is the *polarity* of the discharge? what is the *electrical field* of the discharge? could it be an *artifact*? if so, what *type* of artifact?

The presentation usually starts with "textbook" illustrations of EEG phenomena that are followed by increasingly complicated and atypical examples (including those with artifact and montages that display the waveforms in a sub-optimum manner). Some readers might object to this apparent redundancy but the pedagogic value and resemblance to "real world" EEG cannot be denied.

Criticisms? Very few! Examples of the difficulties in EEG interpretation of pseudoseizures would have been useful. The majority of EEGs have adequate space but the occasional illustration looks a bit cramped. I suspect that had a large format approach been adopted (such as Blume's previously published *Atlas of Pediatric Electroencephalography*) the price would have been prohibitive. EEG from intracranial monitoring is not included despite the authors' extensive experience in this field. Perhaps a *few* examples of simultaneous extracranial-intracranial EEGs would give an appreciation of what is recorded, and missed, by scalp electrodes.

How should this book be used? In the preface to this atlas the authors state that it is intended to complement a textbook of EEG (*Current Practice of Clinical Electroencephalography*; edited by D. Daly and T.A. Pedley). The novice should read this atlas slowly and carefully; this is a book designed to enhance pattern recognition that cannot be gleaned from a textbook. To paraphrase Osler, to study the phenomena of EEG without books is to sail an uncharted sea, while to study books without reading EEG records is not to go to sea at all. The experienced electroencephalographer will also find many subtleties of interest (at least I did).

This book should be in all EEG laboratories, irrespective of the presence of a training program. Dr. Blume has superior EEG reading abilities and is an outstanding teacher of these skills. I learned EEG from him during hours of rigorous reading sessions. This atlas is "the next best thing to being there." I think this is the best available EEG atlas and give it a very enthusiastic "thumbs up!"

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THE EPILEPSY HANDBOOK. THE PRACTICAL MANAGEMENT OF SEIZURES. 1994. 2nd Edition. By R.J. Gumnit. Published by Raven Press. 194 pages. $C49.00

The rapid changes in the field of epilepsy required that this second edition, more than a decade after the first one, had to be largely rewritten. The author has succeeded in covering the management of seizures in its broadest sense in a concise, logical fashion.

After defining epilepsy and seizures, the author gives ample attention to the management of the first seizure. The author states that only 50% of patients are diagnosed in the first six months and that it takes five years following the first seizure before 85% of the patients will have been diagnosed with epilepsy. This indicates that much work still has to be done, informing primary care physicians, other health care providers and patients.

Very practical guidelines for the use of conventional and novel anti-epileptic drugs are given. Special chapters deal with pregnancy and teratogenicity, status epilepticus, surgical treatment and the management of children and infants with epilepsy. Differential diagnosis and the criteria for referral to epileptologists and epilepsy centers are discussed in detail.

The information on the social aspects of epilepsy including insurance, driving, the law and recreation is very helpful for physicians, patients and their relatives.

The information is accurate and very well presented, with little pearls reflecting the wide clinical experience of the author. "Clinical Vignettes" is a chapter where the author-clinician clarifies difficult concepts by presenting brief interesting case reports.

This book is published in the United States and therefore the Canadian reader will not find information on the slow-release form of carbamazepine (Tegretol CR), clobazam (Frisium) and vigabatrin (Sabril), anti-epileptic drugs that in Canada have become a mainstay in the management of the most common seizure types. These drugs are presently not widely available in the United States. Nevertheless, I highly recommend this book to primary care physicians, neurologists and people who take care of patients with epilepsy.

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