BOOK REVIEWS

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Evoked Potentials in Clinical Testing. 2nd Edition (Series: Clinical Neurology and Neurosurgery Monographs No. 3). Edited by AM HALLIDAY. (Pp 741 Illustrated; Price: £70.00). 1993. Edinburgh, Churchill Livingstone. ISBN 0-443-04050-8.

A steady reminder of new applications, new avenues, this book is able to bring excitement and pride for the profession, even for veterans who have spent a respectable chunk of professional life as reporting clinical neurophysiologists. All in a pleasant low key voice with no didactic or superiority undertones; the language, always clear and understandable is somewhat uneven, as is inevitable in a multi-author book. Monitoring progress of disease, sub-clinical warning signs of drug neurotoxicity, or of early radiation myelopathy in children have immense value as children are often less than good observers and are unreliable sensory witnesses.

Objectivity regarding the relative value of the individual electrical test is maintained throughout the book even when low diagnostic value and other deficiencies of a given method has to be admitted. For example, the wide variability of the Event Related Potentials (ERP) in the healthy population makes the method more useful in within-patients studies. One detects delicacies, for example the ERP latency in memory scanning test is consistently longer for musical notes than for verbal stimuli. To conform to current health reform trends there is an audit chapter—an excellent validation of the relative values or hit-rates of the trimodal evoked potentials, MRI and oligoclonal bands in demyelination. The hierarchy is established, the BAEP being the least contributory, followed by the median nerve Sensory Evoked Potential (SEP). Not surprisingly the EPs are less efficient than MRI. The value of the EP's, however, remains because of widespread availability, speed of testing, lower capital cost and compared to oligoclonal bands, it is non invasive. Gems are found for example the CSF IgG correlates better with MRI/VEP abnormalities in patients with chronic progressive M.S. of long duration than in patients with relapsing-remitting course. In a book where some health-service-speak is present (see audit) one is grateful for the surviving humanity; it is refreshing to read that cost-effectiveness is not open to fully rational resolution, and the author admits that even if during spinal surgery, the expense of monitoring is high, it more than compensates for a future life in a wheelchair. A useful, important book for both the year-around and the occasional user.

MARTA ELIAN

Guillain-Barré Syndrome. By GARETH J PARRY. (Pp 200; Price: DM90.00 H/bk). 1993. Stuttgart, Georg Thieme Verlag. TMP ISBN 0-86577-444-7. GTV ISBN 3-13-783601-8.

This is the third book entitled "Guillain-Barré Syndrome" to be published in three years. My own book published in 1990 emphasised the pathological changes and pathogenetic mechanisms and wandered more broadly into neuroimmunology. Ropper, Wijdick and Truax's book published in 1991 contained a meticulous account of the diverse clinical pictures subsumed by the title, based on Ropper's vast experience at the Massachusetts General Hospital, and an extensive discussion of differential diagnosis.

Parry's book began life in the author's imagination as a description of peripheral nerve disease for the beginner, but grew into another extensive monograph focused on typical Guillain-Barré syndrome. Its greatest strength is its careful description and helpful explanation of the neurophysiological changes, especially the conduction block which underlies weakness in "typical" cases of Guillain-Barré syndrome. However, Guillain-Barré syndrome forms a subgroup at one end of a spectrum of acquired, usually inflammatory, demyelinating polyradiculoneuropathy. Chronic idiopathic demyelinating polyradiculoneuropathy, which Parry also describes based on a small personal series, forms the other end of that spectrum. Guillain-Barré syndrome itself is heterogeneous. In some cases the clinical neurophysiological and pathological evidence suggests the existence of a purely axonal form in which IgG antibodies to ganglioside GM1 are, in our experience, usually present. The striking distribution of clinical deficits in Miller Fisher syndrome have now been matched by the findings of antibodies to ganglioside GQ1b.

Maybe these recent observations, still in press while Parry's book was being written, will eventually justify my own emphasis on pathology and pathogenesis, here dealt with in an eloquent but brief chapter by Pollard. In the meantime I recommend Parry's book as the shortest and most up to date monograph on clinical aspects of Guillain-Barré syndrome.

RAC HUGHES

Atlas of Neuroradiology. By MATTHEW J KUHN. (Pp 256; Price: $137.50). 1992. New York, Raven Press. ISBN 1-56375-008-2.

This work is just what the title claims—a picture-book of the subject, comprising about 500 images illustrating the pattern of disease of the central nervous system. The majority of these images are MRs and CTs, but there are probably enough angiograms and myelograms included to validate the title. Of the 500, only a handful are conventional radiographs which points to the fact that the age of non-contrast neuroradiography has come to an end. All credit is due to the author for his choice of illustrations—all have a high quality and each is a text-book example of the particular entity, and the images considered together cover the whole field. Notable are those entities which MRI and CT have revealed to us for the first time on this side of the autopsy table, such as demyelination, intracerebral haematoma, as well as syringes and the causes of canal stenosis.

The chapter arrangement follows conventional wisdom (congenital, traumatic etc.) and each consists of a brief text supplemented by relevant images. The bibliography, being confined to American radiological journals, is somewhat restricted, but it is adequate to provide access to the literature for a specific detailed search. The index is excellent. Several disease classifications can be challenged on the grounds of the improper splitting or lumping of entities, but in an atlas this is a quibble that can be ignored.

A more important question hanging over the *Atlas* is this: Who is the book aimed at? Juan Taveras, now the doyen of all neuroradiologists, claims in his foreward "[it is suitable for] medical students, trainees preparing for examinations, general radiologists and our neurological colleagues". But it simply isn't possible for one book to target all these groups. My conclusion is different to Professor Taveras's—namely, the *Atlas* is an ideal introduction to neuroimaging for entrants to the neurosciences who already possess some background knowledge. These include medical and nursing students and radiographers, as well as radiology and neurology trainees. The *Atlas* is an introductory text, then, not a bench book. Older neurosciences consultants, even neuroradiologists are likely to have to consult more than a picture-book to solve individual problems. A radiologist who uses this *Atlas* as his only reference book will not fail his examination but he should not be interpreting neurological images. Good introductory texts enjoy a sustained demand in medical libraries and hospital departments, and this *Atlas* is strongly recommended to serve this need.

EH BURROWS

Dementia. (Contemporary Neurology Series). Edited by PETER J WHITEHOUSE. (Pp 465 Illustrated; Price: £72.00). 1993. London, Williams & Wilkins Ltd. ISBN 0-8036-9271-4.

Not so long ago, within the professional life span of many physicians, elderly individuals who were losing their mental faculties concerned neurologists little if at all. Like the laity, they attributed the condition to the inevitable effects of ageing, and the brain atrophy to hardening of the arteries. Even after Alois Alzheimer described the unique pathology of presenile dementia, it evinced little interest amongst neurologists because the disease was essentially geriatric and incurable. Moreover, detailed assessment of the mental faculties was not usually an

integral part of the neurologic examination.

But all this changed as neurology and neuropathology expanded. It was then realized that there was not one but many diseases that could express themselves as a progressive mental decline, some treatable and even curable. In practice, the definition of these clinical syndromes answered to the criteria of chronicity, progressivity and a symptomatology the essence of which was intellectual deterioration. The main problem, as Critchley pointed out in 1938, was the definition of intellectual functions.

Following Spearman and other psychologists, intelligence was found to be multifactoral, comprised minimally of memory, language, reasoning, calculation and visual-spatial orientation. Clinicians learned that each of these functions had its own anatomy and could be lost singly or in various combinations during the course of disease. Moreover, it was ascertained that certain patterns of deficit might be linked to specific diseases, e.g. pure global memory deficit to vitamin deficiency. Therefore, it is a mark of laxity in thinking to use the term dementia in a generic sense; always there should be a qualifying adjective, e.g. global dementia, amnesic dementia, dysphasic dementia, etc.

This is a criticism that could be levelled at this monograph—that it tends to lump together all clinical states in which there is some alteration or impairment of mental function. Only the acute confusional psychoses and deliria are separated. While a common practice in psychiatry, for clinical neurologists this is a step backwards.

From clinical experience most neurologists have come to think of the dementing diseases as being chronic and progressive. Only a relatively small number satisfy these criteria. Yet the subject matter of this monograph includes more than a hundred diseases. The reason for this extreme inclusiveness is that the temporal factor in pathology is disregarded. No importance is attached to the mode of onset, the clinical course and outcome as denominating attributes of disease. To include every disease that touches the mind in any way as a dementia, regardless of its temporal profile, as is inferred in this monograph, serves no useful purpose.

Whitehouse is aware of these problems and struggles with matters of definition. The standard criteria of the American Psychiatric Association's Mental and Statistical Manual (DSM III R) are quoted but many neurologists find them inadequate, and the same may be said of the formulations of the special committee on dementia of the National Institute of Neurologic Diseases and Stroke.

Despite the reviewers' criticism of the wide compass of subject material, the main topic of this monograph is Alzheimer's and closely related diseases, and the various contributors have covered the subject well. The clinical descriptions are of good quality and the first six chapters on epidemiology, genetics, neuropathology and neuropsychology are informative and up-to-date. Helpful to the readers are accounts not only of the most recent scientific data but also of the methodology by which they were obtained. Even in the later descriptions of vascular, neoplastic, toxic, infectious and demyelinative diseases, which may cause derangements of mind, it is their psychologic aspects which are stressed. This section finishes with a critical assessment of therapies, both for the disease process and some of the unwanted symptoms it produces.

A final section contains comments on the psychologic and social implications of a dementing disease. The role of the physician in helping the family provide humane care is presented well. Wise suggestions are to be found in these pages.

In general, the book is strongly recommended. It should attract a wide readership drawn from the fields of neurology, psychiatry and the neurosciences. It measures up to the standards set by previous editions of Davis' Contemporary Neurology series.

RD ADAMS

Stereotactic and Image-Directed Surgery of Brain Tumours. Edited by DAVID G T THOMAS. (Pp 236 Illustrated; Price: £70.00). 1993. Edinburgh, Churchill Livingstone. ISBN 0-443-04445-7.

Currently there is a very strong trend towards minimally interventive forms of surgery. Far from standing aloof from such a movement neurosurgeons can be counted among its earliest pioneers. Since the introduction of stereotactic frames for approaching indirectly remote intracranial targets in humans in 1947 by Spiegel and Wycis in North America and in 1949 by Leksell in Europe there has been a steady improvement in increasingly flexible and precise methods for accessing the brain. This progress has been much aided by the dramatic development of new imaging techniques. Despite the increasingly rapid rate of change in scientific progress this book encapsulates the currently available advances in brain tumour surgery, emphasising the importance and pitfalls of stereotactic biopsy, CT and MR guided surgery, as well as the role of minimally interventive interstitial radiotherapy and completely non-interventive radiosurgery, the latter both by gamma knife and by modified linear accelerator. However, perhaps the most fascinating contributions are those dealing with the mathematical principles necessary for the pursuit of better three dimensional imaging, and with the awesome prospect in the near future of how much of today's activity will soon be mastered by robots. The promise of holographic imaging, frameless stereotaxy, selective radiosensitisers and robots manipulating increasingly sophisticated endoscopes is exciting indeed.

DMC FORSTER

Carpal Tunnel Syndrome and Other Disorders of the Median Nerve. By RICHARD ROSENBAUM and JOSE OCHOA. (Pp 358 Illustrated; Price: £70.00). 1993. Oxford, Butterworth-Heinemann. ISBN 0-7506-9229-4.

The carpal tunnel syndrome is one of the commoner neurological conditions seen by a broad spectrum of medical and surgical practitioners. The appearance of a monograph devoted to it is timely in view of its recent designation as a prescribed industrial disease in the UK. While the principal aim of the authors has been to describe this and other lesions of the median nerve, they have used it as an "archetype for other focal compressive neuropathies" and in doing so have incorporated much of their vast experience in the field of pathophysiology of chronic nerve compression.

The main sections of the book contain an excellent chapter on the anatomy of the median nerve and cover the clinical aspects, including presentation, diagnostic criteria and differential diagnosis, aetiological mechanisms and its association with other medical conditions. There is a detailed and critical review of the electrophysiological and other methods employed for diagnostic evaluation and of the conservative and surgical management of the condition. They also discuss the relationship between activity and occupations which may be casually related to carpal tunnel syndrome and associated medico-legal issues. There is a brief but challenging review of the controversial issues of "causalgia" and "reflex sympathetic dystrophy" related to median nerve injuries. The final chapters describe the various proximal median nerve compression syndromes and digital nerve lesions. The book is well illustrated, with excellent anatomical line drawings and instructive patient photographs in the clinical sections.

This is an excellent monograph on the subject and a lot more besides. The authors are to congratulated for combining their considerable experience of pathophysiology of chronic nerve compression with information gleaned from "well over 2,000 articles and books" on the subject. Every one who deals with the clinical, diagnostic or surgical aspects of median or other nerve disorders should read it.

PRW FAWCETT

SHORT NOTICE

Yearbook of Neurology and Neurosurgery 1993. A Mosby Year Book. Edited by WALTER G BRADLEY and ROBT M CROWELL. (Pp 464; Price: £52.00). 1993. London, Mosby-Year Book Europe Ltd. ISBN 0-8151-2142-3.

The excellent Year Book continues with Walter Bradley as its new Neurology editor. He has changed the format, introducing three succinct topical review papers. He has co-opted 12 Associate editors to select and provide the brief comments after each paper abstracted. New headings to break up each paper are a new feature: Background, Methods, Findings and Conclusions.

A valuable source of information and further references which is digestible and pleasant to read.