

MATTERS ARISING

Prospective evaluation of a prognostic index for intrinsic supratentorial tumours

In their paper published in this *Journal* Hutton *et al* conclude that histological grade provided no additional information on survival of patients with intrinsic supratentorial tumours.¹ This is surprising and contrary to the findings of other workers.²⁻⁴ One of the problems is that they relied on the Kernohan grading system, which is notoriously subjective. Other groups have pointed out that histological grade using the Dumas-Duport scheme does contribute prognostic information. It would be interesting to know whether if the prognostic index used by the current authors was tested against the Dumas-Duport scheme, histology would still fail to contribute to the prognostic index.

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- Hutton JL, Smith DF, Chadwick DW. Prospective evaluation of a prognostic index for intrinsic supratentorial tumours. *J Neurol Neurosurg Psychiatry* 1995;59:92-4.
- Burger PC, Scheithauer BW. *Tumours of the central nervous system. Atlas of tumor pathology.* Washington, DC: Armed Forces Institute of Pathology, 1994.
- Dumas-Duport C, Scheithauer BW, O'Fallon I, Kelly P. Grading of astrocytomas, a simple and reproducible method. *Cancer* 1988;62:2152-65.
- Kim TS, Halliday AL, Hedley-Whyte ET, Convery K. Correlates of survival and the Dumas-Duport grading system for astrocytomas. *J Neurosurg* 1991;74:27-37.

Hutton *et al* reply:

That histological grade provided no additional information on survival once a binary variable derived from our index was taken into account is a statement of fact. As Dr Hedley-Whyte is surprised by this fact, we suggest that she uses the index, given in the paper, on data which she has collected. It will be interesting to know whether the Dumas-Duport scheme contributes prognostic information which adds to data that can be obtained by non-invasive methods.

Hemiballism in Parkinson's Disease

We read with interest the recent interchange between Obeso *et al* and Inzelberg and Korczyn in the *Journal* (1995;58:645-6). Their discussion, and particularly the accompanying diagrams, outline current wisdom with respect to basal ganglia interactions and how changes in the activity of specific structures account for certain clinical manifestations. One critical clinical observation which is not readily explained by the

current physiological models of the basal ganglia is the striking amelioration of levodopa-induced dyskinesias with ventral posterior medial pallidotomy. The benefit obtained from this procedure with respect to primary parkinsonian signs is generally explained on the basis of a reduction in the overactivity of the GABAergic inhibitory input from the pars interna (GPi) to the thalamus (fig 2B, p 646). However, given the extent of the expected pallidal lesioning with this procedure, a pronounced reduction would have been expected in all pallidal outflow resulting in a similar picture to that depicted in fig 2F (similar to an extensive lesion in the subthalamic nucleus (STN) causing dyskinesia). Instead, in our experience, mild, shortlived (< one hour) contralateral (and occasional ipsilateral) dyskinesias occur at the time of lesioning in most patients followed by almost complete elimination of all forms of levodopa-induced dyskinesias (peak dose dyskinesias, diphasic dyskinesias, and off period dystonia) in the contralateral limbs with additional improvements often seen in ipsilateral limbs as well. If the lesion is misplaced or partial (possibly comparable with the effects proposed in fig 2E with a partial STN lesion), the ameliorative effects of the pallidotomy on levodopa induced dyskinesias may be only shortlived.

There are other important neuroanatomical problems with the simplified schematic diagrams currently used to explain these clinical states. Figure 2 outlines the "indirect pathway" exclusively. However, as Parent and Hazrati^{1,2} have recently pointed out, there are major anatomical flaws in this simplification. These authors argue that the projection from the external segment of the globus pallidus (GPe) to the STN does not directly synapse with neurons projecting on to the GPi and substantia nigra (SN) pars reticulata. Instead, they connect with neurons which project back to the GPe forming a closed loop. The GPe then has a direct connection to the GPi which is all but ignored in current anatomical formulations. Another important criticism of current models emphasised by Parent and Hazrati^{1,2} is the fact that the STN input to the GPi projects predominantly to neurons involved in associative rather than sensorimotor striatal inputs.

It is clear that there is a great deal more to be learned about the interactions of corticobasal ganglia-thalamocortical interactions in health and disease states. Although current models have successfully predicted some clinical findings, they fall well short of satisfactorily explaining many others. Careful electrophysiological, biochemical, and imaging assessments of non-human primates and patients undergoing surgical treatments for Parkinson's disease will hopefully assist in clarifying some of these confounding issues.

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- Parent A, Hazrati L-N. Functional anatomy of the basal ganglia. I. The cortico-basal ganglia-thalamo-cortical loop. *Brain Research Reviews* 1995;20:91-127.
- Parent A, Hazrati L-N. Functional anatomy of the basal ganglia. II. The place of subthalamic nucleus and external pallidum in basal ganglia circuitry. *Brain Research Reviews* 1995;20:128-54.

Inzelberg and Korczyn reply:

We are grateful to Lang and Lozano for their comments. They are correct in pointing to some deficiencies in the basal ganglia circuitry which we have suggested in this *Journal* (1995;58:645-6). Neither have we intended the diagrams to be all inclusive. Intentionally we have omitted the pedunculo-pontine nucleus, cerebellar contributions, etc, have not differentiated between partial and complete lesions, and have not distinguished between the immediate effects of the lesions and subsequent compensation, to which we refer elsewhere.¹ We hope, nevertheless, that the simplified diagram suggested by us will be of value to clinicians and scientists interested in movement disorders as it "explains" several neurological conditions.

1 Flash T, Inzelberg R, Korczyn AD. *Behav Brain Sci* 1995 (submitted).

NOTICE

Announcement from the British Neuropsychiatry Association: 1996 Summer meeting

The 1996 Summer meeting will be held on 14-16 July at Robinson College, Cambridge. It will include topics on neurodevelopment, language, and the presentation of short scientific papers and single case videos by members. The Association's AGM will be held on 16 July.

For further details of these meetings please contact: Sue Garratt, Administrative Assistant, BNPA, 17 Clocktower Mews, London N1 7BB. Telephone/Fax: 0171 226 5949.

For details of membership of the BNPA, which is open to medical practitioners in psychiatry, neurology, and related clinical neurosciences, please contact: Dr Jonathan Bird, Secretary BNPA, Burden Neurological Hospital, Stoke Lane, Stapleton, Bristol, BS16 1QT. Telephone: 01179 701212 ext 2925/2929 or Sue Garratt at the address given above.

CORRECTION

Cockerell OC, Eckle I, Goodridge DMG, Sander JWA, Shorron SD. Epilepsy in a population of 6000 re-examined: secular trends in first attendance rates, prevalence, and prognosis. *J Neurol Neurosurg Psychiatry* 1995;58:570-60. During production an error occurred in table 2. The third subheading in this table should read *Age and sex specific prevalence rates for 1000 persons for 1983 and 1993*. Not per 100 as printed.

BOOK REVIEWS

All titles reviewed here are available from the BMJ Bookshop, PO Box 295, London WC1H 9TE. Prices include postage in the United Kingdom and for members of the British Forces Overseas, but overseas customers should add £2 per item for postage and packing. Payment can be made by cheque in sterling drawn on a United Kingdom bank, or by credit card (Mastercard, Visa or American Express) stating card number, expiry date, and your full name.

Neurology of Critical Illness. By EELCO F M WIJDIKCS. (Pp 360; £82.00). Published by F A Davis Company, Philadelphia 1995. ISBN 0-8036-9316-8.

Anyone who has tried to devise the contents for a text on the diversity of neurology encountered in general medical disorders will know the difficulty. How can you make the end result directly useful for everyday clinical practice, rather than merely creating an impenetrable taxonomy? Dr Wijdikcs has overcome this difficulty with distinction in his coverage of the neurological complications of both medical and surgical diseases in critically ill patients. He could not have had a better background for this task, given his work on the neurology-neurosurgery intensive care units at two giant teaching and referral centres: initially at the Massachusetts General with Allan Ropper, and more recently at the Mayo Clinic. The principal beneficiaries of this book will be neurologists and intensivists, but it also provides valuable reference for those in neurosurgery, transplantation, and neuroanaesthesia. It is a specialised, and moderately expensive textbook for specialist clinicians who look after, or consult upon, critically ill patients.

The introductory section contains two helpful practical discourses. One addresses the way in which neurological findings may be modified by various drugs used in intensive care units. The other covers the complications of the many invasive procedures undertaken in critically ill patients. All too often the decisiveness of our neurological advice is attenuated by uncertainties stemming from these two sources. The book also addresses other frequently encountered issues, including the differential diagnosis of generalised weakness, the diagnosis and management of seizures in critically ill patients, and brain death. Devotees of mnemonics will enjoy "MUSCLES", an aide memoire for the differential diagnosis of weakness in critically ill patients; the "C" refers to critical illness polyneuropathy. One is often asked to speculate about prognosis and the chapter covering the outcome from various encephalopathies, or severe trauma or stroke, will usefully inform the guarded opinions we may express.

The remainder of the book is divided into two sections dealing with complications on the medical, and on the surgical intensive care units; an organisational dichotomy rarely encountered in British hospitals. The

medical section covers the expected topics succinctly and pertinently: infections, cardiac arrest, metabolic derangements, coagulation disorders, acute vasculitis, and renal and hepatic disease. The discussion of that imprecisely defined entity called septic encephalopathy is particularly useful given the sketchy treatment it receives in most books despite the readiness with which it is often diagnosed. Only one of the chapters in the surgical section will be of direct interest to neurosurgeons: spinal and head injuries are covered under multisystem trauma. The remainder of the chapters in the surgical section will be primarily of value to medical neurologists and intensivists: complications of transplantation, environmental injuries, cardiac surgery, and atherosclerotic aortic disease. There is a detailed discussion of the various spinal cord infarction syndromes which may follow disease of, or surgery to the aorta. It includes discussion of a central cord-like syndrome in addition to the standard spinal arterial territory infarcts with which most neurologists are familiar. It remains to be seen whether hypothermia, perioperative methylprednisolone, or continuous spinal fluid drainage will become fashionable amongst British vascular surgeons as prophylaxis against spinal cord injury.

F A Davis are to be congratulated on yet another superb volume in the Contemporary Neurology Series. It stands on merit alongside such familiar classics as the *Differential Diagnosis of Stupor and Coma*, the *Wernicke-Korsakoff Syndrome*, and the more recent *Guillain-Barré Syndrome*. But the publisher can only take a small part of the credit; it is Dr Wijdikcs who has assembled an eloquent compendium for which he deserves thanks from all of us who foray on to intensive care units.

MICHAEL DONAGHY

Epileptic Seizures and Syndromes. Edited by P WOLF. (Pp 678 £65.00). Published by John Libbey and Co, London 1994. ISBN 0-86196-430-6.

Another book on epilepsy! While the reviewer still finds this the most fascinating of neurological subjects, there seems a real danger that this subject is currently being published to death! This volume consists of some 66 chapters, some of which are repetitive, and many of which have been published in slightly different guises elsewhere. The large number of chapters, the lack of coherent structure (some chapters have a summary, others conclusions, some both, and some neither), and the inclusion of some chapters that appear to be the product of a discussion, strongly suggest that the book is the product of a symposium with the speakers and discussants asked to turn up with their manuscript in hand! The introduction does not, however, acknowledge this.

This would very much be a book for those with a special interest in epilepsy, and indeed, it largely ignores the broader aspects of epilepsy to concentrate on the more severe epilepsy syndromes and their classification. At times, some of the authors appear irritatingly naive about epilepsy as it exists outside tertiary referral centres. The same publishers have recently brought out

a multi-author book on the idiopathic generalised epilepsies, and the same authors largely repeat their previous clinical contributions, while other chapters in this section turn out to be case reports of two or three interesting patients with unusual reflex epilepsies. The section on the partial epilepsies is broadly more useful and reflects the increasing knowledge of this semiology of this subject.

The book can claim to be a reasonably topical update of the clinical issues related to classification of seizures and syndromes but it is not a book for someone new to the subject who wants to learn something about epilepsy as it lacks a coherent structure that can be followed through. It is definitely a book to accept as a gift rather than to spend money on!

DAVID CHADWICK

The Comprehensive Management of Parkinson's Disease. Edited by A M COHEN and W J WEINER. (Pp 269; \$59.95). Published by Demos Publications, New York 1994. ISBN 0-939957-74-4.

Parkinson's disease (PD) is a common disorder that all too often is regarded as a pharmacological problem manifest as a movement disorder. The disease does though affect many parts of the nervous system and presents a multitude of problems to the patient, carer, and family only some of which respond to levodopa therapy. This short book is therefore a welcome account on the management of PD, as it concentrates on all aspects of the disease. As it states in the preface the book "is written for the entire range of health care practitioners who deal with patients with PD, for the patient themselves, and for their caregivers and family members." As a result of this approach, however, the book does have some difficulty in addressing its audience, in that parts of the book are too technical for the patient, carer or family (for example, chapter 1 on the principles of rehabilitation) whilst other chapters are clearly written more for the patient than medical specialist (for example, chapter 8 on driving and PD). Furthermore the book is clearly written for a United States audience and so sections of this book have only limited appeal, for example the last two chapters which deal with financial and legal issues as well as local and national support services.

The topics that are represented in this book provide interesting insights into all aspects of this disease, and is especially good at dealing with issues not normally considered by neurologists—for example, swallowing and communication difficulties. At times the discussion does get confused in distinguishing between the problems of elderly patients and those with PD, who admittedly are normally elderly. However there are many useful tips that one can glean from this book—for example, the use of shoes with heels in patients with retropulsion. The difficulty though, of choosing less mainstream topics to discuss, is that there is a paucity of work to refer to during the discussion which means that reference lists tend to be short, dated and in rather obscure journals. Furthermore the discussion often lacks critical analysis and thus the chapters can

included. The advice seems coherent and sensible, although an interesting omission was pizotifen from the list of migraine prophylactics (perhaps reflecting North American practice). Undoubtedly it is superficial, sometimes to the point of being unhelpful; surely Professors will moan. But then *The Manual* is not for them. Their registrars however may want to slip a copy into their white coat on the way to clinic, alongside that lucky tendon hammer and *Aids to the Examination of the Peripheral Nervous System*.

ALASDAIR COLES

Migraine: Manifestations, Pathogenesis, and Management. By ROBERT A DAVIDOFF. (Pp 375; £80.00.) Published by Waverly Europe Ltd, London 1995. ISBN 0-8036-2360-7.

This may not be the biggest text book on migraine but it is one of the better ones. The middle section, on the pathophysiology of migraine, is particularly good. You will have to look hard to find such a comprehensive, up-to-date and well-referenced discussion of this difficult and often bewildering subject. Vascular, neural, and other theories of migraine pathogenesis are covered logically, in depth and with authority over some 65 pages. It is perhaps no surprise to see that the author is not only a professor of neurology but professor of physiology, biophysics, and molecular and cellular pharmacology as well.

The first section critically reviews the epidemiology and diagnostic criteria for migraine, its myriad variations and trigger factors. Other headache syndromes are described and put in context but it is clear that this is a text book on migraine and not headache. Some 111 pages and about a third of the book's 2210 references cover this initial section.

The final section, on the treatment of patients with migraine, is of no lesser quality. As one might expect from a single authored text book there is again consistency, lack of duplication or overlap in the text. From the emphasis on the drugs described one can deduce that the author is American, with much on calcium antagonists and little on good old pizotifen. In this section I had hoped to learn more about Davidoff's personal practice and recommendations but in this respect I was a little disappointed. Overall this book is to be highly recommended to all neurologists and workers in the field of migraine. It is not only easily readable and well set out but also very well referenced.

PAUL DAVIES

Textbook of Geriatric Neuropsychiatry. By C EDWARD COFFEY and JEFFREY L CUMMINGS. (Pp 720; £94.50.) Published by The American Psychiatric Press Inc, Washington 1994. ISBN 0-88048-391-1.

Thanks to advances in neuroscientific research, neuropsychiatry is currently resurgent, but for the clinician it has the potential weakness of concentrating on "lesions" and "impairments", with the risk of neglecting the whole patient and his or her social

environment. This pitfall seems even more possible in "geriatric" neuropsychiatry with its backdrop of inevitable decline into senescence. So it is rather gloomy reading that everything gets worse with age, and at variance with the positive aspects of elderly people (dignity, wisdom, etc) and the great satisfaction to be gained from treating them as patients.

Following this conceptual grumble, I shall now praise this weighty red book. It is very thorough and informative, with extensive reviews of the neuropsychiatry of both psychiatric and neurological disorders, but also more general sections on aging, neuropsychology, neuroimaging, and neuropsychopharmacology. The chapters are contributed by leading American researchers and the format and standard are generally uniformly high. In some areas (for instance, anxiety, epilepsy), there is little neuropsychiatric research specifically relating to the elderly, but the relevance of the literature to old age is always emphasised. Perhaps the chapters on psychiatric disorders are less satisfactory than those concerning neurological illnesses—the discussion on mood disorders concentrates on neuropsychiatric aspects and secondary depression at the expense of ordinary major depression and (especially) its prognosis.

Large books suffer in areas of rapid technical advance, and this volume is already out of date on such topics as apolipoprotein E and tacrine. Nonetheless, it is a mine of information and will be a valuable source of reference for some time yet.

TOM DENING

Essentials of Clinical Neurophysiology. Edited by KARL E MISULIS. (Pp 306; £27.50). Published by Butterworth Heinemann, Oxford 1995. ISBN 0-7506-9657-5.

This is a brief book which encompasses an introduction to electroencephalography, electromyography, nerve conduction studies, evoked potentials, and polysomnography. It provides a flavour, therefore, of various clinical and technical aspects of the specialty without going into great depth. More than in other short texts, however, the naive reader is not introduced to some of the more interesting complexities. This is not helped by some of the diagrams, some of which appear to be schematic representations rather than reproductions of raw data (other than extracts of EEG). The author has noble intentions, therefore, in trying to present his subject in a way which is accessible and practical, but unfortunately this does not represent the best of short texts on clinical neurophysiology.

SIMON BONIFACE

Developments in Dementia and Functional Disorders in the Elderly. Edited by RAYMOND LEVY and ROBERT HOWARD. (Pp 196 £35.00). Published by Wrightson Biomedical Publishing Ltd, Petersfield, 1995. ISBN 1-871816-27-0.

This textbook arises from the course held last year at the Maudsley Hospital entitled an update on dementia and functional disor-

ders in the elderly. I attended the course and now reviewing the book I find myself like the cinema-goer who saw the film before reading the book.

The book is divided into three parts, an update on the dementias (Cortical Lewy body dementia, vascular dementia, and the genetics of Alzheimer's), drug trials in dementia, and the management of functional disorders (novel psychotics in the elderly, a review of antidepressants in the elderly, day hospitals). The book provides a relevant and balanced mix of basic science contributions and clinical issues. As with many multi-authored books style alters considerably but overall the standard is high, chapters are clearly written, and topics thoroughly reviewed by leading researchers and well-known clinicians.

Although a number of chapters, which at the time written presented state of the art work, will no doubt quickly date, the clinical chapters will provide good advice for some while.

At £35.00 a copy this book should without doubt be on the library shelf but I would also recommend it to old age psychiatrists and trainees for their personal library. It also has much of interest for geriatricians and adult psychiatrists. It certainly is a lot better than the notes I took!

CAROL GREGORY

SHORT NOTICES

Readers may be interested in

Legal Medicine. Third Edition—American College of Legal Medicine. By S Sandy Sanbar, Allan Gibofsky, Marvin H Firestone and Theodore R LeBlang. (Pp 754). Published by Mosby-Year Book, St Louis 1995. ISBN 0-8151-0131-7.

Life after Head Injury By Jane Hubert. (Pp 110 £30.00). Published by Avebury, Aldershot 1995. ISBN 1-85972-148-6.

Benzodiazepine Receptor Inverse Agonists. Edited by Martin Sarter, David J Nutt and Richard G Lister. (Pp 304 £73.00). Published by Wiley, Chichester 1995. ISBN 0-471-56173-8.

Neurobiology of Violence. By J Volavka. (Pp 397 £48.95). Published by The American Psychiatric Press Inc, Washington 1995. ISBN 0-88048-543-4.

Neurocardiology. Edited by J Andrew Armour and Jeffrey L Ardell. (Pp 443 £45.00). Published by Oxford University Press, Oxford 1994. ISBN 0-19-507304-5.

Stroke, 100 Maxims in Neurology. Edited by Frank M Yatsu, James C Grotta and L Creed Pettigrew. (Pp 178). Published by Mosby, London 1995. ISBN 0-8016-72813.