
Journal of

NEUROLOGY NEUROSURGERY & PSYCHIATRY

VOLUME 56 · 1993

COMMITTEE

Editor: R A C Hughes

Associate Editor: G Teasdale

From November: J D Pickard

Deputy Editor: M D O'Brien

Book Review Editor: J M S Pearce

C Binnie
N Brooks
N E F Cartlidge
J S Chopra
J C Cutting
R J Dolan
M Esiri
R S J Frackowiak
R J Guiloff
A Harding
A P Hopkins

R A Johnston
B R F Lecky
A J Lees
V L McAllister
J G McLeod
C D Marsden
C N Martyn
E Melamed
A D Mendelow
J D Miller
J P Mohr

I Moseley
N M F Murray
G D Perkin
J D Pickard
N Quinn
R O Robinson
P Rudge
H Sagar
P Sandercock
J W Scadding
M D M Shaw

P D Swanson
E Warrington

Editor
British Medical Journal

Technical Editors:
M Harrington
A C Waddingham

BMJ PUBLISHING GROUP

- receptor measurement in myasthenia gravis. *J Neurol Neurosurg Psychiatry* 1991;54:454-6.
- 2 Brenner T, Abramsky O, Lisak RP, Zweiman B, Tarrab-Hazdai R, Fuchs S. Radioimmunoassay of antibodies to acetylcholine receptor in serum of myasthenia gravis patients. *Isr J Med Sci* 1978;14:986-9.
 - 3 Abramsky O, Zielinski A, Wirguin I, Brenner T, Lisak RP. Specificities of anti-acetylcholine receptor antibodies. *Ann N Y Acad Sci* 1981;377:806-7.
 - 4 Zielinski A, Brenner T, Abramsky O. Binding of myasthenia gravis antibodies to different acetylcholine receptor preparations. *Isr J Med Sci* 1982;18:438-6.
 - 5 Vincent A, Newsom Davis J. Acetylcholine receptor antibody as a diagnostic test for myasthenia gravis: results in 153 validated cases and 2967 diagnostic assays. *J Neurol Neurosurg Psychiatry* 1985;48:1246-52.
 - 6 Oda K, Goto I, Kuroiwa Y, Onoue K, Ito Y. Myasthenia gravis: antibodies to acetylcholine receptor with human and rat antigens. *Neurology* 1980;30:543-6.

Clarke et al reply:

We thank Dr Brenner *et al* for their comments on our paper on the lower sensitivity of our anti-acetylcholine receptor antibody assay. We do not claim that this can be solely attributed to the use of staphylococcal protein A for immunoprecipitation rather than anti-human IgG antiserum. Indeed, we state that the use of receptor preparations from single individuals rather than pooled material may be partly responsible.

Regarding the problem of quality assurance for such antibody assays, we participated in the first EURO EQAS anti-acetylcholine receptor workshop held as part of the Euro-myasthenia III meeting, 1991. The results which our laboratory reported for the circulated samples agreed with the other participating laboratories, which does not suggest current methodological flaws. The assay used remained unchanged from the one described in our paper, with one modification. Owing to problems of availability, the form of protein A had been changed from staphylococcal dried cells (Sigma S0504) to a more homogeneous protein A cell suspension (Sigma P7155). We are unable to comment if this alone could significantly alter the sensitivity of our assay.

It was apparent from the meeting that standardisation of human muscle antigen preparation is perceived as a problem. One useful suggestion concerned the possibility of utilising tissue culture derived acetylcholine receptor as a reference material for calibration purposes.

Finally, our laboratory has registered to participate in the EuroEQAS for AChR antibodies when this scheme starts on a regular basis.

CE CLARKE
PB WILSON*
DI SHEPHERD
GM YUILL
JC SMAJE†

Departments of Neurology and Neurophysiology,*
North Manchester General Hospital
and Regional Immunology Department,†
St Mary's Hospital, Manchester, UK.

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.

Frontal Lobe Seizures and Epilepsies. (Advances in Neurology, Vol. 57). Edited by P CHAUVEL, A V DELGADO-ESCUETA, E HALGREN and J BANCAUD (Pp 750; Price: \$119.00.) 1992. New York, Raven Press. ISBN 0-88167-827-9.

This large, and at first sight intimidating, book will be a source of fascination and pleasure to anyone interested in the localisation of function within the cerebral hemispheres. The foundations of the work reported in this volume were laid by the early work of Penfield and Jasper and their colleagues in Montreal. The main theme is to examine those correlations between the site of origin of epileptic seizures and their pathways of spread that result in the complex symptomatology of human partial seizures of frontal origin.

The clinical importance of frontal lobe seizures cannot be understated. They are common and frequently resistant to treatment. However, frontal lobe seizures tend not to remain confined to their sites of origin, as is the case with temporal lobe seizures, but to spread rapidly. Indeed, their symptomatology may be more determined by the pathways of spread than by their site of origin. This volume makes it clear that we must abandon the classical idea of frontal lobe seizures resulting in the classical Jacksonian march, or tonic aversion and little else. The speed with which generalisation can occur from a frontal lobe focus means that generalised tonic-clonic seizures or "pseudo absences" are not infrequently seen. Frontal seizures are often associated with immediate loss of consciousness associated with versive posturing or with contraversive head and eye turning without loss of consciousness. Typical complex partial seizures may arise from frontal lobe structures and these can be suspected clinically. They are very frequent, often occurring in clusters, relatively brief and associated with rapid recovery of consciousness without post-ictal confusion. They are often associated with bilateral automatisms at the onset of the seizures. However, more typical complex partial seizures can arise from frontal sites with auras which are more typically associated with temporal lobe seizures.

There is considerable debate as to whether particular electro-clinical seizure types are associated with different sites of origin within the frontal lobe. This reviewer is more persuaded by the difficulties in identifying precise localisational patterns of seizures.

The book runs to over 700 pages and contains no less than 46 chapters. Whilst much of the volume is taken up with frontal lobe epilepsy, there are also interesting contributions on the cytoarchitecture and neurophysiology of the frontal lobes in both man and primates. There are discussions into aspects of neurochemistry relevant to frontal lobe projections from the basal ganglia and discussions of the pharmacological management of the partial epilepsies. One can criticise the repetitious nature of many of the discussions. It will certainly serve as a state of the art review for anyone with anything more than a passing interest in epilepsy.

DAVID CHADWICK

PAIN Mechanisms and Management. (British Medical Bulletin Vol 47, No 3, July 1991). Edited by J C N WELLS and C WOOLF (Pp 791; Price: £33.00). 1992. Edinburgh, Churchill Livingstone. ISBN 0-443-04491-0.

"Pain is one of the prime movers of life" declared François Magendie. Doctors have advanced from this merciless standpoint, but not enough to satisfy the authors of this decidedly mixed volume.

On the one hand, here are definitive accounts of pain-generating mechanisms (though contentious areas, like the role of the cerebral cortex, are avoided) and commonsensical, compassionate descriptions of pain management. But alongside such sound contributions there are ill-conceived and hastily written chapters. Even allowing for constitutional difficulties with minding ones *mus, deltas* and *kappas*, getting through a section on opioid pharmacology felt like walking through quick-setting cement, not least because of spectacular typos, e.g. "deleiritous" (page 699).

Neurological purists likewise will balk at suggestions that trigeminal neuralgia may be caused by intracerebral (sic) tumours (page 650), that anti-serotonin agents may be classified as adrenergic blockers (page 772), and that diphenylhydantoin and phenytoin are somehow different (page 771).

The most irritating feature of the book is its inclination to accuse the medical profession *en bloc* of not advancing from the Magendie line. "Doctors fail because of ignorance, inexperience..." (page 567), "doctors often become frustrated or even angry..." (page 763). Such pejorative and condescending remarks mirror the very opinions these doctors are supposed to have towards their patients. They are unsubstantiated and, even if true, two wrongs do not make a right. The presence of such comments, along with a tendency to sloganizing and attempts at fundraising strike a note of desperation (in a purportedly scientific test) which must ultimately be counterproductive.

These flaws make it hard to recommend the book to neurologists who will already have access to classic textbooks on pain. Similarly, trainees may find the price a little steep for under 300 pages of plainly produced text with few illustrations.

L GINSBERG

is also a lack of uniformity in the way the references are organised, some being presented in the old and much more useful alphabetical order and others are listed under the order in which they are quoted, a regrettable modern practice. The chapters are clearly written though not free from typographical errors and malapropisms (if such can be said to exist in an era of descriptive lexicography) and the reader may suffer from excessive exposure to acronyms. Even spinal cord injury is dealt with in this way.

Generally the book can be recommended as a reference text for departments and individuals.

TT KING

Bailliere's clinical neurology. International Practice and Research. (Vol. 1/No. 1 April 1992—Neurological Aspects of Human Retroviruses). Guest Editor: P RUDGE (Pp 262; Price: £27.50). 1992. London, Bailliere Tindall. ISBN 0-7020-1629-2.

This multiple author book aims to summarise what is known about retroviral involvement of the nervous system in man. The first two chapters consist of a comprehensive but rather indigestible discourse on the classification, molecular biology and immunology of the known retroviral diseases. There is a further chapter on retroviral diseases in animals. I felt that for a book aimed at a clinical audience these were rather too long and could have been condensed.

An excellent chapter, describing the neurological syndromes associated with human T cell leukaemia virus infection, follows. The remainder of the book is devoted to human immunodeficiency virus (HIV) infection, beginning with a useful brief overview of the associated disease spectrum. Chapters on opportunistic infections, cognitive impairment and other neurological disorders associated with HIV infection come next. Finally there is a section on pathology and a review of overall management.

It is interesting to see a European book on this subject. Although HIV infection produces broadly similar features in all Western cultures there are clearly subtle differences on this side of the Atlantic, for example in the relative frequencies of the different opportunistic infections. There is a certain amount of repetition in some of the early chapters but overall I found this a good book that achieves its aims. It would be a useful addition to any departmental library.

TJ WALLS

London Neurogenetics Database. Oxford Medical Databases. By M BARAITSER and R M WINTER (Price: £395.00). Oxford University Press. 1991. ISBN 0-19-262-039-8

Many Doctors are faced with the necessity of counselling patients or their relatives concerning hereditary disease. To do this requires confidence and detailed information. This electronic information resource provides both.

The greater part of it is a table of recognised neurogenetic syndromes (about a thousand), with synonyms. This table can be browsed either by name (e.g., "Which syndromes contain the word CLEFT in their name?") or, more usefully, by clinical features. By trial, and with selection of features by their significance, it is possible to establish a list of syndromes that match a clinical picture, of a manageable size. To do this task by hand would be possible: it is in principle little different from selecting a particular bundle of groceries from a supermarket. It is beyond this point that the value of the electronic technique is seen, because, effortlessly, the database can display further information about the selected syndromes. It will provide an abstract of each syndrome and references to the original papers. This is the information that is needed to prune the list of syndromes individually to those few which are the possible diagnoses in a particular case. The database also allows searching of the reference list alone and this is in itself a valuable resource because there are just over ten thousand references. There is a facility to file data referring to patients in a third database (which can be stored off the computer). This is particularly useful in those situations when a diagnosis cannot be reached initially, and one needs to allow time to elapse as a diagnostic test—either to allow the significance of particular features to become apparent or because important features are age-related.

There are other methods such as working from the genetic defect where known. Whilst no one would claim to be pan-optic, there is a good case for feeling that if a tool like this does not turn up a recognised hereditary cause for a syndrome (however genetic it may look) then there is no such cause. The user's guide warns that this is a system for experts rather than an expert system as such. This database has many strengths: the instructions on how to install it give the correct information on hardware and software requirements, though finding the 12 MByte of disk space required to run it might be difficult. The instructions are easy to follow. The database is small enough to fit on a reasonable number of floppy disks rather than a CD-ROM. Updates and supplements are planned.

The techniques and procedures needed to operate the database are clearly described in the well-produced manual, and easy to master. There are some points that the prospective user should be aware of. It is plainly intended for the practising clinician and will be of far greater use in the consulting room than in the library. It is strongly slanted towards paediatric practice. Apart from the database's being the product of many years' work from one unit, its organisation represents a fairly individualistic way of going about things. Not many Doctors would wish to keep patient records (even in abstracted form) on a computer.

The overall value of the data is outstanding, and the high quality of the software and presentation (such as the user's guide and manuals) is what one would expect from a major publishing house. There is a commitment to extending this work, and keeping it up-to-date. The main audience for this database is self-defining, but it is to be hoped that many neurologically-inclined Doctors will look at it, as it replaces many paper-based resources and, therefore, makes available information otherwise inaccessible due to constraints of time.

BP FOWLER

Treatment of Multiple Sclerosis Trial Design, Results and Future Perspectives. Edited by: R A RUDICK and D E GOODKIN (Pp 313; Price: DM 210.00). 1992. Heidelberg, Springer-Verlag. ISBN 3-540-19683-8

This book bears testimony to the difficulties of assessing treatment in such a variable disease over the years by devoting almost half its content to an exhaustive and masterly review of the methodology, and its pitfalls. This section is thus more suited to those who might design future trial protocols than to the clinician who dips into its pages for an update on current treatment options. Indeed the main title may mislead—this is not a comprehensive text of treatment in MS but rather a critical appraisal of attempts to alter or slow the progression of the disease, focussing on specific immunotherapies. Nevertheless at a time of rapid expansion in immunology a book with such a perspective is timely. Many Neurologists without immunological expertise will welcome this comprehensive critique of immunotherapy in this common condition.

The second half of the book relates to specific forms of immunotherapy and comprises comprehensive reviews of treatment data to date often enhanced by the authors' personal experience of their 'pet treatment'. Other chapters are presented in the format of an extended paper which is perhaps less objective. The chapters on Natural History (Goodkin) and Steroid Treatment (Myers) were particularly enjoyable.

The final two chapters provide an enticing insight into future therapy, aimed at more specific (but as yet hypothetical) methods of immune intervention. If these aspirations are realised, the meat of the current text may become relegated to the earlier historical chapters. This book will earn its place on the shelf of those who wish to embark on the thorny road of evaluating modern treatments of MS rather than the general clinician.

DA FRANCIS

SHORT NOTICE

Functional Anatomy of the Neuroendocrine Hypothalamus (Ciba Foundation Symposium 168). Edited by D J CHADWICK (ORGANISER) AND J MARSH (Pp 300; Price £42.50). 1992. Chichester, J Wiley & Sons Ltd. ISBN 0-471-93440-2.

Clinical Neuroanatomy for Medical Students 3rd Edition. By R S SNELL (Pp 653 Illus: Micrographs, some colour; Price £24.95). 1992. Edinburgh, Churchill Livingstone. ISBN 0-316-80244-1.

Management of Acute Pain: A Practical Guide. Prepared and Edited by International Association for the Study of Pain (*Task Force on Acute Pain*) Edited by L B READY and W T EDWARDS (Pp 73; Price US \$15.00) 1992 Seattle, IASP Publications. ISBN 0-931092-01-9.