Book reviews

Nevertheless, as a book into which neurologists and paediatricians may wish to dip, this represents one of the better texts in paediatric neurology, and it includes numerous source references.

JOHN WILSON

Anticonvulsant Therapy, Pharmacological Basis and Practice by Mervyn J Eadie and JH Tyrer (pp 338; £17.00) Edinburgh: Churchill Livingstone, 1980.

One of the most useful advances in the management of epilepsy has been our deeper understanding of the pharmacokinetics of the drugs that are currently available to us. Our ability to measure plasma levels has enabled us to appreciate the marked intersubject variability which occurs in the handling of antiepileptic drugs and has led to a widespread acceptance of the fact that correct tailoring of the dose to suit a patient’s metabolic needs is essential if an optimum response is to be achieved without risk of intoxication. Furthermore, we have been able to determine the plasma half-life of each of the drugs and therefore to rationalise the regime for drug administration. We have learned for instance that a single nightly dose of phenobarbitone is as effective as the same dose divided into three daily administrations and is much more likely to be remembered.

The explosion of investigative work in this area is producing a situation in which an author wishing to review the field takes on an increasingly Herculean task. In this respect, Eadie and Tyrer have succeeded well, giving a balanced and systematic review of the pharmacodynamics, pharmacokinetics, interactions and toxicity of each of the main drugs in turn. The book is well referenced and provides an excellent starting point for someone beginning in the field. Naturally, the authors choose to illustrate the book with their own work, and although this is to be expected, in this instance it is inclined to give it a somewhat idiosyncratic appearance. In particular, the dose-plasma concentration plots (of which there are no fewer than 42) are most unhelpful. When these are constructed on single observations on many patients they fail to show the true relationship because the prescriber influences the plot by dosage tailoring. Slow metabolisers tend to be given small doses because they become intoxicated at higher doses, whereas fast metabolisers are likely to have had their doses increased because their fits were not controlled by low doses. This tends to flatten the plot and cause it to droop at the top end, and comments such that “a parabolic regression fits the data slightly better than a linear regression” are meaningless in pharmacokinetic terms, as well as most unhelpful to the prescriber seeking guidance on dosage. As a result of these plots the authors come to the surprising conclusion, which they are unable to explain, that the relationship between methylphenobarbitone dose and plasma phenobarbitone level is linear, whereas when the drug is administered as phenobarbitone itself, the relationship is curvilinear. They therefore recommend the use of methyl phenobarbitone rather than phenobarbitone because it is easier to manipulate, ignoring the poor absorption of the drug and its variable conversion to the active phenobarbitone. Few, I think, would support this recommendation.

A further peculiarity is the use of “valproate” levels rather than valproic acid. The authors accept that phenytoin and phenobarbitone are measured as such in plasma despite the fact that they are often given as their sodium salts. Why not valproic acid? In fact, in many of the articles they cite in their discussion of “valproate” levels, valproic acid was measured rather than sodium valproate. Perhaps this is a minor quibble, but one that makes an error of 15 per cent or so on the measurements. What, incidentally, should our North American colleagues do when they administer valproic acid itself? Or our South American colleagues when they administer the magnesium salt?

Despite these criticisms, there is a lot in this book for the practising physician. The large section on pharmacokinetics is prefaced by an introductory section on the basic principles governing the drug management of epilepsy and is followed by a concluding section on the clinical use of anti-epileptic drugs. There is some sound advice in these sections, although the authors might be advised to consider combining parts of them in future editions in order to avoid overlap. Perhaps, also, they could persuade the publishers to allow them to use et al in the text. Lists of seven or eight authors spelled out in full in the text makes rather heavy weather of it, apart from using up costly space. The book is intended primarily for clinicians who treat epileptic patients. It can be thoroughly recommended to them.

ALAN RICHENS


Students of Neurology, faced by unfamiliar clinical problems, need a reliable source of elementary neurology explained in terms of applied anatomy and physiology and many will find diagrams as useful for quick reference as explanatory text. Almost half the well produced “Pocket Book of Clinical Neurology” consists of full page diagrams, clinical photographs and tables. These are mostly clear and informative. Some are repetitive; nine pages are not necessary to establish the principle that many lesions displace normal structures. Minor variations in approach and emphasis are inevitable in a translation originally intended for a different readership. These do not matter but this book suffers from more serious problems.

The description of common neurological syndromes is often incomplete, for example the section on the Brown Sequard syndrome does not mention proprioceptive sensation. These omissions will confuse readers with partial understanding of neurology and those with more experience will question some statements and recognise many factual mistakes in the text. Unnecessary information, such as the number of peripheral sensory receptors or spinal cord extrapyramidal fibres, is included. The liberal use of obscure eponyms is perhaps excessive for a book of this size but everyone will applaud the author’s (translators’) imagination, and neurology is richer for the “Robin Hood” syndrome of

It is extraordinary how previously rejected observations become "respectable" when the theoretical basis becomes orthodox. In the 1960s the autoimmune hypotheses for myasthenia gravis were rejected by authors of reviews other than their progenitors, and experimentalists confidently stated that antibodies against acetylcholine receptors did not exist. Accordingly, there were still many who would not accept the clinical evidence favouring early thymectomy, and treatment with azathioprine was discounted outside of Europe. Now that the immunological basis of myasthenia gravis is well established, the value of early thymectomy is universally acknowledged, azathioprine has an established place in treatment, and plasma exchange has become an ethical form of treatment. The exact value of plasmapheresis and its indications remain somewhat uncertain. Is it effective alone or only with follow-up immunosuppression? Is removal of antibody the essential element or is replacement with donor IgG important? There are many factors still to be agreed and symposia on myasthenia gravis are now taking place all over the world. This book is the proceedings of one of these held in San Francisco in June 1978. Like every symposium, it is a mixture of the good and the not so good. Part I, on the immunology of the acetylcholine receptor, is an excellent survey with little new information. It is a good starting point for readers who have not followed the subject as it has developed. Part 2, on thymic pathology, thymectomy, and thoracic duct drainage, is more disappointing but the chapter by GD Levine on the structure and pathology of the thymus (indicating that germinal centres are extra-thymic structures) is most interesting. The main sections are Part 3 (plasmapheresis and Part 4 (immunosuppressive drug therapy). These sections are, unfortunately, based on small series. In this respect the Symposium was a little premature. The papers will add little to those of the pioneer London and Wurzburg workers, but at least the differences in procedures allow some questions to be formulated, such as the role of replacement media in plasmapheresis, and the site of action of azathioprine.

At its price the book will appeal more to researchers than to clinicians looking for guidance on the treatment of the occasional case of myasthenia gravis, but the former will read it with the closest attention. Well produced and edited, it is a landmark in the literature on myasthenia gravis.

JA SIMPSON

Aromatic Amino Acid Hydroxylases and Mental Disease Edited by MBH Youdim (pp 390; £23) Chichester: John Wiley & Sons, 1979.

The aromatic amino acid hydroxylases are enzymes of major neurochemical and pathological importance. Defective synthesis of phenylalanine hydroxylase in phenylketonuria leads to the accumulation of phenylalanine and its metabolites and thus to the resultant mental deficit. Tyrosine and tryptophan hydroxylases are the rate limiting enzymes for the synthesis of the catecholamines and 5-hydroxytryptamine, and the subject of intense interest in relation to affective diseases. Three chapters in this book concern phenylketonuria and affective illness. However, a second group of chapters on the enzymological properties of hydroxylases is probably the most original part of the book and renders it an essential part of a neurochemical library. It is attractively produced and efficiently indexed with comprehensive reference lists covering the literature up to around 1976.

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Aphasia and Associated Disorders by Andrew Kertesz (pp 350; $32-50) New York: Grune and Stratton, 1979. The extent of the personal and social impact on acquired disorders of language has clearly been reflected in the large number of books published on the subject of aphasia. In this volume Dr Kertesz attempts to bring together information on the classification of aphasic disorders, the ways of testing aphasic patients and also on the problems associated with treatment and rehabilitation. He states in the preface that one of the aims of the book is "to present new data with a novel approach and technique." What this in fact means is that more than one third of the book has been devoted to the analysis of aphasia using the Western Aphasia Battery. He outlines in one chapter the rationale of the test and this is followed by chapters dealing with its standardisation and validation and the application of a numerical taxonomy to the classification of aphasic groups and also to alexia agraphia and apraxia. In one chapter the author provides a descriptive summary of the major aphasia examinations in English. He also deals with the current techniques used in localising lesions and devotes two chapters to the problems of recovery and treatment. The book emphasises heavily the practical aspects (that is assessment rehabilitation and treatment) of aphasic problems and for this reason will have a limited appeal to the clinician.

M WYKE

Notice

The Fifth International Congress on Neuromuscular Diseases will be held in Marseille, France, 12-17 September 1982.

Further information is obtainable from The Secretariat, 5th International Congress on Neuromuscular Diseases, c/o Pr Georges Serratrice, CHU La Timone, 1 Chemin de l’Armée d’Afrique, 13385 Marseille cedex 4, France.