

## Book reviews

**Essays in Neurochemistry and Neuropharmacology Vol 4** edited by MBH Youdim, W Lovenberg, DF Sharman and JR Lagnado (pp 282; £19.50) Chichester: John Wiley & Sons, 1980. This useful and well produced series continues with a volume in which five of the six chapters are largely on the catecholamine area—biochemical aspects of schizophrenia (ME Lewis), cyclic nucleotides and transmitter release (Weiner), the chromaffin granule and exocytosis (Zinder and Pollard), dopamine- $\beta$ -hydroxylase enzymology (Rosenberg and Lovenberg), catecholamine receptor sensitivity changes (Gnegy and Costa). Neurologists will probably find most to interest them in the first and last of these chapters. Dr Lewis's review (70 pages) mainly concerns the transmethylation and dopamine hypotheses of schizophrenia. Possible syntheses of the two hypotheses are discussed. I get the impression from his article of a shift towards considering drug provoked hallucinations more seriously in relation to schizophrenia.

The one non-catecholamine chapter should also be of relevance to neurologists. This is on the neurobiology of the brain enolases (Marangos and Schmechel) and describes the localisation and properties of these enzymes in normal brain. It is pointed out that at the non-neuronal and neuronal enzymes can be used as markers of glial and neuronal cells, they provide potential tools for the investigation of neurological disorders.

G CURZON

**Amyotrophic Lateral Sclerosis** Edited by T Tsubaki and Y Toyokura (pp 426; £25.50) Japan Medical Research Foundation Publication No 8. Distributed by MTP Press Ltd, Lancaster, 1979. Another SYMP PROC, which is the abbreviation that I shall use to describe "Proceedings of a Symposium". Twenty-five chapters report the activities of a group gathered together in February, 1978, by the Japan Medical Research

Foundation. Most contributions stem from the host country, but there were eight invited guests from abroad, mainly from the USA. An introductory chapter from Forbes Norris, entitled "Old and New Clinical Problems in Amyotrophic Lateral Sclerosis", sets the scene. Unfortunately, there are no answers to the old problems, and the new approaches so far have proved unproductive. The rest of the volume deals with many of these abortive efforts, such as failure to identify a significant immunological abnormality, occult toxin, virus, or other cause for this unpleasant disease. Particular attention is given to anthropological aspects of motor neurone disease, with descriptions of amyotrophic lateral sclerosis in Guam, the Kii Peninsula and West New Guinea (Gajdusek). A large section also is devoted to Werdnig-Hoffman and Kugelberg-Welander diseases. The major accent throughout the book reflecting the strong pathological approach of this group of Japanese neurologists, is on morphology. This is not a book for the general neurologist, but it may be of interest to those involved in research into this disorder.

CD MARSDEN

**Cognitive Components in Cerebral Event-Related Potentials and Selective Attention** Edited by JE Desmedt (pp 319; DM141) Basel: S Karger, 1979. This book, volume 6 of Desmedt's valuable series, considers the late components of evoked potentials and how they may relate to cognitive states. Eighteen papers describe aspects of evoked potentials while subjects detect, discriminate, decide, ignore, act upon or make mistakes about simple stimuli presented to the three sensory systems. Although there are only four potentials considered in detail, N1, P2, P300 and CNV, there are very many cognitive states and "black boxes" abound in a review of the psychological models of selective attention. Donald spells out that the evoked potential components do not fit the black boxes and most chapters relate correlations between cognitive events and amplitude changes in the evoked potentials.

Four chapters on the clinical uses of evoked potentials show there are none,

as yet. This is disappointing but changes are described in schizophrenia, autism, depression and mental retardation as well as in organic neurological disease. It seems certain that studies along these lines have great potential for enhancing our pathophysiological understanding of these conditions in the future.

The book makes interesting reading and brings together neurophysiology and psychology. The fact that these two disciplines are not complementary adds to the interest and should stimulate further work. The editor was wise to include Ingvar's succinct account of his remarkable brain blood flow studies for, although methodologically unrelated, they are very relevant to the mind-brain relationship.

EM SEDGWICK

**Neonatal Neurology** By Gerald M Fenichel (pp 259; £14) Edinburgh: Churchill Livingstone, 1980.

I looked forward with enthusiasm to the appearance of this monograph on neonatal neurology by an eminent paediatric neurologist and hoped it might fill the hiatus in this field. Regrettably, I was sadly disappointed. The book is almost totally devoid of clinical photographs, with the exception of an infant with arthrogryposis (with socks on) and a few cases of gross malformations (anencephaly, encephalocoele, meningo-myelocoele). In the introductory section on normal and abnormal postures there is a series of line drawings which might have served the purpose but as any artist will know it is very difficult to reflect the age of an infant. No detail as to age is given in the captions and the infants in many of them look like 2–6 months old rather than neonates, which I think they are supposed to be representing. In the very first illustration of "normal resting posture" the infant looks very unusual to me; I have yet to see a normal newborn lying supine with both arms pointing vertically; in addition the caption says the hips are abducted but in the drawing they look adducted.

The second chapter reviews different forms of convulsions and includes a series of polygraphic recordings. This is followed by a chapter on hypotonia

which has an extensive series of excellent, almost full-page, muscle biopsy illustrations. Some of these are, however, out of context; for example, the section on mitochondrial myopathies says that mitochondrial-lipid-glycogen myopathy is the only mitochondrial myopathy with neonatal onset but the illustration does not show this condition but a fairly normal looking mature muscle (presumably from an older child or adult) with two abnormal fibres suggesting mitochondrial abnormality. In none of the histological illustrations is any detail given of the cases from which they came. The succeeding chapters review important topics—*asphyxia*, *trauma* and *vascular anomalies*, *infections*, *metabolic disorders*, *disorders of cerebral morphogenesis*, *hydrocephalus* and *congenital tumours*, and finally *neonatal electroencephalography*. In keeping with the times, there is a liberal supply of CT scans, many of which show up interesting aspects of pathology. I was puzzled by the use of a CT scan (fig 5.2) in a case with a parietal cephal-haematoma which revealed “an extracranial mass which does not cross the suture lines.” I would have thought one’s fingers were perfectly reliable for diagnosing that.

The book covers many of the metabolic disorders affecting the nervous system, together with several useful charts of the appropriate metabolic cycles, and having recently seen a floppy convulsing neonate with Zellweger’s syndrome I thought I might get an update on the role of pipercolic acid but there was no mention of it at all and none of the references included were beyond 1970. I am afraid this book will not meet the need for either a practical basic book on neonatal neurology for the greenhorn or a source of reference and authority for the experienced neonatologist.

V DUBOWITZ

**Practical Electromyography** Edited by Ernest W Johnson (pp 457; £21) Baltimore, London: Williams and Wilkins, 1980.

After years of drought, as far as EMG textbooks are concerned, there is a flood. Lenman and Ritchie, Goodgold and Eberstein, Smorto and Masmajian, Aminoff—to mention only some current English language texts—are now joined by the latest volume in the Rehabilitation Medicine Library. It has evolved from Sidney Licht’s well-known “Electromyography and Electrodiagnosis” under the hand of Ernest W Johnson, but is in effect a new book by, and one feels mainly for, American “physiatrists.” Two questions immediately arise: does it provide anything not already available and is there a need for EMG textbooks anyway? To the first question the answer is surely no, and to the second this reviewer would reply: yes, but preferably not of this kind. EMG techniques are essentially simple and learned by apprenticeship, so that the really useful book will be problem-orientated, like Matthews’ invaluable “Practical Neurology,” and have chapter headings like “The Wasted Hand” and “The Aching Middle-Aged Woman” rather than the seemingly inevitable, and terribly fatiguing “Myopathies”, Radiculopathies” and so on.

The first chapter, of which the editor is co-author, is unfortunate, to say the least. What, for example, is one to make of the recommendation, on the very first page, to give the patient “a poke in the abdomen” to obtain relaxation of paraspinal muscles? Or of the instruction to make “circular individual movements of the electrode . . . at least 12 and probably 20 times” at each site of needle insertion? It is tempting to proceed no further, in the face of poor illustrations and loose, often hideous writing (“ . . . pathological muscle cell membrane irritability is on a continuum rather than a dichotomous process . . .”), but the temptation should be resisted because there are competent and interesting chapters on motor conduction, repetitive stimulation, myopathies, anterior horn cell diseases, polyneuropathies and entrapment syndromes. A particularly helpful contribution is that of Reiner and Rogoff on instrumentation, since few electro-

myographers are sufficiently acquainted with the technical basis of their craft.

There is the usual irritating evidence of lax proof-reading (“Thomson disease,” “medical cord of the plexus”), but two more serious general criticisms need to be made. The first is of a tendency on the part of nearly all contributors to dilate upon interesting, important, often speculative aspects of the subject at the expense of truly practical information, thus belying the title. The second is the failure to appreciate that single fibre EMG has made a substantial contribution to our understanding of the findings of orthodox EMG. All future authors of EMG textbooks are recommended to read “Single fibre electromyography” by Stålberg and Trontelj before lifting their pens.

J PAYAN

**Atlas of the Human Brain and the Orbit for Computed Tomography** Edited by J Hanway, WR Scott, CM Strohman (pp 76; \$32.50) St Louis Missouri: Warren H Green, 1980.

This is the 2nd edition of an atlas consisting of brain sections approximately 8 mm thick with corresponding scans at 0 degrees, 25 degrees and 45 degrees to Reid’s base line. Since the first edition all the scans except three have been changed and have now been taken on a GE8800 scanner. The pictures of the scans and brain sections accompanied by the corresponding sagittal reference plane are of good quality and well labelled. The supratentorial sections have been well chosen and accurately reflect the cadaver sections. At the level of the tentorium, however, the authors have had some difficulty obtaining corresponding CT and cadaver sections. It is important to be aware of the angle of scan to Reid’s base line as this alters the position of a lesion in the image. This book will be of considerable value to those embarking on a career in the neurological sciences, as well as, to radiologists with some exposure to neuroradiology.

DPE KINGSLEY