infarction of the peripheral trochlear nerve presumably occurs. As with other isolated cranial mononeuropathies in this age group, ipsilateral fronto-temporal headache and browache may be associated. Invariably, spontaneous recovery of double vision occurs in the ensuing months. In younger patients, a congenital trochlear palsy with decompensation should be ruled out by carefully measuring vertical fusional amplitudes in primary gaze. Ocular myasthenia may simulate any pupil sparing, painless ophthalmoplegia and should be investigated with intravenous edrophonium testing when suspected. Only rare cases of solitary fourth nerve palsy due to compressive causes or aneurysms have been reported. In one such instance,[3] a fourth nerve palsy in a 51 year old was seen to progress over a 2 year period. Investigation revealed an intracavernous meningioma as the cause. Neuro-imaging (CT, MRI) should be reserved for those cases of fourth nerve palsy which are not truly isolated, which do not improve after several months of observation, or are shown to be progressive in nature. Carotid angiography seems warranted only in those rare situations in which an associated subarachnoid haemorrhage (such as due to basilar artery aneurysm) has been shown by lumbar puncture or computed tomography.

Intracavernous aneurysms that cause cranial neuropathy are often large and easily demonstrable on CT or MRI. Pain is often associated and remission of symptoms and signs is unusual.[4] Invariably the oculomotor nerve is involved although an isolated abducens nerve palsy may have been seen. As stated by Maurice-Williams and Harvey, only one case of intracavernous aneurysm producing solitary palsy has been previously reported[2] and in that case cranial nerves III and VI were later involved. Based on the existing data, I feel therefore that the fourth nerve palsy in their case was most likely ischaemic in origin and that the small aneurysm seen on angiography was probably coincidental. This interpretation would be more consistent with the spontaneous remission which occurred.

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1 Maurice-Williams RS, Harvey PK. Isolated palsy of the fourth cranial nerve caused by an intracavernous aneurysm. *J Neurol Neurosurg Psychiatry* 1989;52:679.
2 Rush JA, Younge BR. Paralysis of cranial nerve III, IV and VI. Cause and prognosis in 1000 cases. *Arch Ophthalmol* 1981;99:76–9.
3 Slavin ML. Isolated trochlear nerve palsy secondary to cavernous sinus meningioma. *Am J Ophthalmol* 1987;104:433–4.
4 Trobe JD, Glaser JS, Post JD. Meningiomas and aneurysms of the cavernous sinus. Neuro-ophthalmologic features. *Arch Ophthalmol* 1978;96:457–67.

BOOK REVIEWS

Chronopharmacology in Therapy of the Epilepsies. Edited by FE DREIFUSS, H MEINARDI, AND H STEFAN. (Pp 187; Price: $110.50). New York, Raven Press. 1990. ISBN 0-88167-626-8.

Chronopharmacology, the study of the influences of biological rhythms on the kinetics and effects of drugs and conversely the effect of drugs on these rhythms, is emerging as an important concept which as yet has not made significant breakthrough into clinical practice, apart from the timing of drug administration according to its pharmacokinetics. The effect of meals, for example, the delay in absorption of VPA given during or after meals which occurs within specific time intervals may be more important than hitherto recognised as may be the effect of sleep or wake, night or day.

In fact there are at least five factors which have to be taken into account; the nature of the galenic preparation, the circadian time of treatment, the timing, quality and quantity of meals in relation to drug timing, the age and gender of the patient and the differences in people's genetic characteristics. One can anticipate that in the future a specific drug may be required to be taken at a specific time of day (or night) in relation to a specific dose and a specific uniform meal so as to obtain constant and reproduceable therapeutic drug levels. The mind boggles at the introduction of these variables into drug trials!

Regarding this volume, I find the chapters by Smolensky and Renberg on medical chronobiology with special reference to temporal patterns in epileptic seizures and by Newmark and Dubinsky on the significance of seizure clustering most informative from the clinical point of view. The volume is not particularly well produced, the variable print settings of the different chapters being somewhat disconcerting. This book is of interest to neuropharmacologists, and not particularly at present to most clinical neurologists.

GAB DAVIES-JONES

The Genetics of Neurological Disorders 2nd Edition Series: Oxford Monographs on Medical Genetics—18. By M BARAITSER. (Pp 733; Price £30.00). Oxford University Press, 1990. ISBN 0-19-261813-X(pbk).

Neurologists reared on the late RTC Pratt's seminal and studious work will welcome Baraitser's 2nd edition. The expansion of knowledge has not discouraged him, nor caused him to view Pratt's seminal book as a *damnosa hereditas*. Though many diseases considered are unique or rare, the range is now so wide that clinical neurologists are commonly asked to provide both diagnostic and genetic counsel in routine clinics.

In most common diseases: epilepsy, migraine, MS and Parkinson's disease this is established practice. But, the author chastens clinicians, suggesting that genetic counselling is badly done. Whether or not this justifies the subject as a new clinical specialty in every centre is more arguable, since counselling rests above all on unerring diagnosis—an area in which the neurologist should be better accomplished than the geneticist whose territory is far wider, spanning from abetalipoproteinaemia to Zellweger's syndrome.

Baraitser's first edition was a *tour de force*. This second one reflects the rapid expansion of categories of both rare and common problems with hereditary components. As a comprehensive source of reference it is unrivalled. Each section provides a succinct digest of the salient clinical features of the disorder, its genetics, and anticipated risks to other members of the family. The list is truly encyclopaedic, as testified to by the 209 pages of bibliography—an invaluable and necessary part of such a work.

Where it falls down is that explanation, mechanisms and pathogenesis are often neglected so that we end up with a rather lacklustre compilation. The inclusion of even a brief statement would provide a more intelligent and considerably enlivened text; but, presumably the objection is that this would expand an already bulky book. Readers may have the feeling that the enormous number and diversity of very rare syndromes would be better assembled at some central computer base with suitably convenient access for syndrome hunters. Indeed such is the scale of this laborious volume that one suspects much of its contents may already exist on hard disks. It might be better in future editions to include subsections in compendium form, with smaller typeface and line spacing, for the more esoteric syndromes, for example: those with microcephaly, hyperteleorism and funny noses; or, the rarest types of lipid, glycogen and ganglioside storage diseases; this might afford more space for short discussion of why, or how, the protean manifestations of these and other diseases are produced.

This criticism is of a peccadillo in an otherwise unique compilation of great importance which sets out clearly all the current information about genetic elements, markers and calculations of risk. No neurologist can afford to be without a copy close to hand.

JMS PEARCE

Coronary and Cerebral Vascular Disease. A Practical Guide. By LA ROLAK AND R ROKEY. (Pp 381; Price: $52.00.) New York: Futura Publishing Co, 1990. ISBN 0-87993-353-4

This book is designed to be a practical guide to management of patients with atherosclerotic disease of the heart and brain (sic); it is admirable, puzzling but a little dull. Admirable because it reviews many topics which would be of considerable interest to the physician (and the occasional neurologist) who takes an interest in cerebrovascular disease. The book is divided into three sections. The first deals with the pathogenesis, clinical features and epidemiology of coronary and cerebral vascular disease. The second covers "the patient with concomitant stroke and myocardial infarction" the third and perhaps most useful, covers "the management of the

patient with concomitant coronary and cerebral vascular disease".

Which gives rise to the puzzling bit: who is this book really aimed at? The detail of the reviews is rather heavy going for the average clinician for whom these topics are but a small part of their daily clinical work, yet the expert may well be familiar with much of the material discussed. On the other hand, the reviewers take a fairly sensible view of much of the material they discuss and rightly point out the methodological weaknesses of evidence where appropriate. Each chapter ends with a clear point-by-point summary. Inevitably, some of their conclusions are controversial, but in general the summaries err on the side of caution.

Unfortunately, in striving to take a balanced view, the authors, I think sometimes throw out the baby with the bathwater, when (p291) they conclude "it has not been shown that aspirin prevents stroke". Their endorsement of simultaneous carotid endarterectomy and coronary artery bypass surgery would also not be well received in the UK. Not everyone agrees that patients with acute suspected myocardial infarction must have onset of symptoms within 6 hours, and definite ECG changes to qualify for thrombolytic therapy. Even though the reference lists are thorough and up-to-date, there is a strong North American bias. It is also unfortunate that the very important Oxford overview analyses of the prospective epidemiological and randomized controlled data on blood pressure, stroke and coronary heart disease were not available until after this book was published.

I think the book's main difficulty is common to all reviews: how does one summarise a huge mass of sometimes conflicting data? Formal statistical overviews are very helpful under these circumstances, yet the authors tend to be dismissive of the technique; perhaps they would consider using overviews more in the second edition.

All in all, there is a lot of useful information in this book.

Anyone with a particular interest in the rather specialised field of combined cerebral and coronary disease should buy this book as a reference source. Other interested parties should get the librarian to get it for the hospital or departmental library.

PETER AG SANDERCOCK

Seizure Recognition and Treatment. By R LECHTENBERG. (Pp 204; Illustrated. Price: £29.95.) Edinburgh, Churchill Livingstone, 1990. ISBN 0-443-08701-6

The intention of the author of this book is to provide information for the physician who is not a neurologist and who is primarily responsible for the care of patients with epilepsy, to permit him to devise strategies for investigation and management, and to answer those questions which patients with epilepsy, and their families, often ask. Overall, within this framework, I think he succeeds.

For the neurologist there is little that is new, but he may find, as I did, that the chapters on Reproduction and Birth Defects and on Psychological Disturbances and Suicide are useful for drawing together and articulating information that is not always presented so clearly elsewhere. The author practises in New York, and reflects medical custom in America, which does not always translate comfortably to Britain. For instance, he states: ". . . many adult neurologists would want a thorough examination of the CSF of a 30-year-old patient who had just had a first seizure." I doubt if a British neurologist would want to do this unless there was evidence of infection or systemic disease. And "when the patient has the first seizure of a lifetime, hospitalisation is prudent to watch for meningitis or other rapidly progressive neurologic problems".

This smacks of overkill, and at any rate is not possible (or desirable) in Thatcher's disintegrating Health Service. I question the usefulness of estimating calcium and magnesium levels on every adult patient with a fit, as is recommended: perhaps a subject for audit? The transatlantic language divide is evident in the use of the term "pseudoseizures", generally held in this country to be attacks like epilepsy of non-organic cause, but used in this book to include all those disorders which are included in the differential diagnosis of epilepsy. "Factitious seizures" equate to our pseudoseizures.

The initial chapters describe the various forms of epilepsy and the investigation of such patients, with brief accounts of the indications and limitations of various tests. Whether it is useful to describe evoked potential studies, digital subtraction angiography and positron emission tomography to a non-neurologist in this context is debatable. The chapters describing the clinical aspects of seizures and their cause are good, as are principles of treatment. The problems of children and adolescents are dealt with separately from those of adults, and the advice given is apposite. There is a short chapter which addresses non-pharmaceutical approaches including surgery.

This book is in many ways like Anderson's haggis—good in parts but disappointing overall. The balance of the book is wrong: I feel that in the effort to be comprehensive, there is too much emphasis on the exotic and rare—how often does schistosomiasis cause epilepsy? (page 71)—and a bias towards overinvestigation. This is a pity because there is good advice in the management and descriptive sections. The book is well produced and illustrated though some line drawings do not further the text and could be discarded. References are appropriate. For the neurologist I found nothing to tempt him to buy, and for non-neurologists there are better reference textbooks on epilepsy.

MILNE ANDERSON

Hydrocephalus Concepts in Neurosurgery Series Vol. 3 Edited by R M SCOTT. (Pp 128; Price: £39.25). London, Williams & Wilkins Ltd, 1990. ISBN 0-683-07614-0

This attractively produced little book gives promise that it might have some of the merits but suffer the usual advantages and disadvantages of multi-authored texts. These fears seem to be justified in several of the early chapters, particularly when, upon occasion, it is unclear whether the authors are discussing infantile, childhood or adult hydrocephalus. The section on history is peculiarly unsatisfactory and as is often the case with United States productions, adopts a peculiarly dismissive attitude towards European contributions. The German literature may no longer be fashionable and may indeed be difficult to read and to render into an English text but the number of errors in the titles above certainly seems excessive even to some with only a modest knowledge of German. Mikulicz certainly ought to be sufficiently well established in the history of surgery to justify having his name spelled correctly.

Another source of difficulty which the authors of the historical section might have addressed, is the present understanding that aqueduct stenosis is a consequence of hydrocephalus rather than a cause. Much of the discussion would be more intelligible if this observation had been made. It is, of course, clear that in a proportion of cases, the clinical course proceeds after bypassing the aqueduct as though the aqueduct had been responsible for the hydrocephalus and thus it may be assumed in such cases that the aqueduct is responsible. The recent and careful work of Lapras in this connection is ignored. That the patients with aqueduct stenosis of non-tumorous origin almost always have compromised CSF pathways because of the primary pathological problem, is of fundamental importance. This explains why Torkildsen's operation and Scarff's third ventriculostomy operations are so unsuccessful in infantile aqueduct stenosis.

The importance of this realisation is markedly greater than listing the publications which deal with attempts at diversion of cerebrospinal fluid to unlikely sites and by unusual methods. In the reviewer's opinion the valveless ventricular to jugular bulb shunting work of El Shafei might justifiably be included in such a listing. Likewise, the chapter on mathematical modelling is disappointing especially in its neglect of pulsatile factors. The uncritical acceptance of Bering's views, again marks a parochial US view. The fascinating findings of Dirocco are mentioned but scarcely discussed. Certainly plexectomy is not uniformly unsuccessful as the authors state, even a modest or partial plexectomy can convert a patient into a condition where they are independent of valved shunts.

When this volume leaves its title, ie, when it stops dealing in concepts and deals in practicalities, however, it becomes a more interesting and worthwhile text. The MRI pictures and analyses are in a class which leave most people in this country at least, breathless with admiration for the techniques which properly funded surgical survices can enjoy. The chapters on surgical management are excellent, full of sound practical advice and mostly free of recommendation for relatively untried procedures. The one field which might be doubtful is the suggestion for the management of slit ventricle syndrome by cranial expansion concentrated in the posterior calvarium. This section is carefully argued. The discussion is well organised, although the decision diagrams are not. Posterior calvariotomy may indeed provide more skull expansion than subtemporal craniotomy without any additional morbidity. The possibility that the posterior fossa decompression is important in children with slit ventricle syndrome, is of interest and will bear further investigation. The section on normal pressure hydrocephalus is again well organised although this reviewer is not at all convinced that one lumbar puncture can ever be a useful diagnostic test for patients with what could perhaps better be called "symptomatic hydrocephalus". Although it is true we need better organised criteria for diagnos-