Book reviews

pearances, the cranio-cervical junction, inflammatory disease, tumours, trauma, paediatrics and a final miscellaneous section. Each section is well laid out in two columns with many sub-headings making it clear and readable. In spite of the rather unusual division and juxtaposition of clinical, anatomical and pathological chapter headings, the entire text is informative and cohesive with no serious omissions.

Nearly all books on MR start with a chapter on physics. This one is no exception but instead of a detailed account of every facet, unintelligible to most clinicians, the authors have sought to explain the parameters which give MR its unique flexibility while keeping formulae to a minimum. They emphasise the practical consequences of sequence construction and along with lucid explanations showing numerous examples of the effects of changes on spinal imaging they explain resolution, signal-to-noise and artefacts.

This solid technical background leads on to the section on normal anatomy illustrated by excellent cross-correlative multiplanar coloured cryomicrotome cadaver sections, schematic diagrams and MR images. These are well labelled with arrows and letters but it is a pity that some of the explanations of abbreviations are not on the same page as the illustration.

Up to 80% of us will suffer back pain at some time in our lives so it is fitting that the section on degenerative disease is the longest at 45 pages. The clinical features are discussed in detail and correlation with pathology and imaging copiously illustrated.

Postoperative appearances are next described. Both the normal and abnormal sequelae are shown with a useful discussion of the "failed back syndrome" and "disc versus scar". Encouraging results are shown when Gadolinium-DTPA contrast is used. It does not address the MR problem of accessing satisfactory fusion: for instance should flexion-extension images be obtained?

The cranio-cervical junction has rightly merited a short section to itself as MR has revolutionised the investigation of this region. The main pathologies in the rest of the spine—inflammation, neoplasia and trauma—are considered in the following chapters. They are clearly laid out and competently discussed.

The embryological development of the spine and congenital lesions are included in the paediatric section while topics not so far described are placed in the miscellaneous section. This includes several major conditions which might have merited more detailed discussion: intra- and extramedullary

cysts, AVMs and other vascular anomalies, demyelination and radiation myelitis.

A radiology book stands or falls on the quality and relevance of its illustrations and their integration into the text. In general they are excellent showing high contrast resolution up-to-date sequences. A few however, have reproduced poorly eg Fig. 3-38, 6-1, 6-7, 6-11 and 7-14. Legends to the figures are informative and support the text but it is unfortunate that the pulse sequence is not always given and T1- or T2-weighted is used instead to describe the image—rather ambiguous terms.

The references placed at the end of each section are full and surprisingly up to date (late 1988) for a book published early in 1989. The index is accurate and comprehensive.

With high quality glossy paper, a good binding, hard covers and being liberally illustrated with half tone and coloured images it is remarkably good value for money. It relates one view of spinal imaging and in many ways looks to the future. At present there are insufficient MR imagers in UK or even Europe to cope with the workload envisaged in this book. It does however give us a glimpse of the potential to rationally replace most of our current invasive investigations when imaging the spine.

The authors have succeeded in producing an excellent authoritative and comprehensive text that succeeds as a manual for the MR unit, as a reference when preparing teaching material and a handbook for anyone, doctor or scientist, who wishes to read an integrated account of MR spinal imaging. I can thoroughly recommend it.

DM HADLEY

Advances in Surgery for Cerebral Stroke. Edited by J SUZUKI. (Pp 752; DM330.00.) Berlin: Springer, 1988.

This book promises to be a landmark coming out as it does between the large clinical trials for revascularization in occlusive stroke. Being published after the extracranial/intracranial arterial by-pass study, it looks back with hindsight on that era, and looks forward to the European and North American carotid endarterectomy trials which are referred to in the book. The proceedings of an international symposium on cerebral stroke make up the contents of the book. The selection of topics for the symposium has ensured that the book has an international flavour of well chosen topics. Seldom is it possible to obtain such up to date information in one volume: most of it is

clinically very relevant and there is a balanced mixture of basic science. The book is divided into three sections:

Part one consists of five special lectures by Suzuki, Sano, Yasargil, Barnett and Drake;

Part two consists of fourteen round table sections covering posterior circulation aneurysms, moyamoya, the ECIC by-pass study, non-surgical treatment of arteriovenous malformations, cerebral infarction, anterior circulation aneurysms, timing and grading in subarachnoid haemorrhage, occlusive stroke, cerebral vasospasm, intervertebral haemorrhage, deep or large arteriovenous malformations, giant aneurysms, revascularization in acute infarction and dural arteriovenous malformation. Each round table is addressed by different authors, and the discussion is excellent.

Finally, part three consists of twenty-eight selected papers ranging from the use of MRI spectroscopy to SPECT scanning in occlusive stroke.

The book is essential reading for all clinicians who deal with cerebrovascular disease, and will only be superseded when the carotid endarterectomy trials are published in several years time, because, on the subject of endarterectomy, Peerless summarizes on page 382 "the real answer is of course that we do not know".

AD MENDELOW

Neural mechanisms in disorders of Movement. Edited by AR CROSSMAN and MA SAMBROOK (Pp 455; £30/US\$58/FF355.) John Libbey & Co Ltd, 1989.

This book is based on a series of papers given at a meeting in Manchester in 1988. Fifty three papers are published divided into three sections devoted to anatomy and physiology, animal models and clinical aspects respectively. Although the aim is "to provide a cohesive account of the neural mechanisms which mediate abnormal movements" it fails to achieve this aim because few papers provide any overview or connecting link. Instead most authors have recorded their recent work that is related (however remotely) to movement disorders. However, there are papers of great interest to the basic scientist in the first two sections; and papers in all three sections that have interest to the clinician.

In the section on anatomy and physiology the paper on dopaminergic and cholinergic systems in the striatum and on striatal pathology in movement disorders stand out as of interest to the clinician. The MPTP animal

model of Parkinson's disease has been an important stimulus to research and the application of this model for the testing of new drugs or delivery systems is clearly of great potential importance. "Clinical aspects" are collected in the third section of this book. The opening chapter provides a valuable review of the less common movement disorders and discusses their treatment. Cortical Lewy body disease and the dementia of parkinsonism are increasingly commanding research interest. Finally there are sections on the surgery of movement disorders in man and imaging techniques such as PET and MRI.

I will be glad to have access to this book to check the views of the many respected contributors on specific topics. And to look up Stanley Fahn's excellent review of rare movement disorders. Others will find this book helpful in directing and extending their research interests. For the time being this book is a source of information on contemporary research activity but by its nature it is ephemeral and at £30.00 will probably mostly be bought by institutions with research workers active in the field of movement disorders.

RB GODWIN-AUSTEN

Clinical Atlas of Auditory Evoked Potentials. Edited by JE OWEN and CD DONOHOE. (Pp 119; £27.95.) Harcourt Brace Jovanovich Ltd, 1989.

Auditory evoked potentials represent the most exciting and major diagnostic advance in the practice of audiology in the last two decades. In addition, the assessment of central auditory function has provided valuable neurological diagnostic data. The wealth of literature on the various potentials, recording techniques and interpretation is not reflected adequately in this atlas. The aim of the book is not defined, but is perhaps summarized in the introduction to chapter 3 "The purpose of this chapter is not to redescribe the history or technical aspects, but to present data". By this criterion, the book cannot be judged to have fulfilled its aim.

With the exception of the chapter on Brainstem Auditory Evoked Responses in Clinical Neurology and the chapter on Acute Brain Injury, the content is lacking in both depth and breadth.

The first chapter on electrocochleography (ECoG) discusses only the technique of extra-tympanic recording. This is perhaps because the book is aimed primarily at a North American audience and medico-legal

considerations preclude transtympanic recording, which is considered by many European workers to be the superior and more sensitive technique. Electrocochleography in relationship to Menière's disease/endolymphatic hydrops is considered but there is no mention of input/output functions to differentiate this entity from other sensory hearing disorders. Moreover, there is inadequate discussion of the interpretation of the summating potential/action potential ratio in the light of the presence or absence of a hearing loss. The value of ECoG in other clinical situations is not covered.

The second chapter deals with objective threshold measurements in the "difficult to test" child. Clear diagrams as befits an atlas outline normative data and the SN10 response at various frequencies. Although a table outlines click elicited adult normative data, there is minimal discussion of the application of objective evoked responses in audiological practice in adults and only a passing mention of middle and late evoked responses. As in the first chapter, only four cases are cited.

The discussion of brainstem auditory evoked responses in clinical neurological practice is without doubt the most valuable chapter in this book. There are clear diagrams outlining normal responses and the interpretation of absolute wave latencies, interpeak latency values and amplitude values. The importance of audiological data identifying a conductive/sensorineural hearing loss in interpreting brainstem auditory evoked potentials is underlined and demonstrated by case presentations. The brainstem abnormalities in multiple sclerosis, acoustic neuromas, other cerebello-pontine angle lesions, cerebral trauma, brainstem gliomas and other tumours invading the brainstem are outlined with case examples.

A very brief chapter on the value of brainstem auditory evoked responses in paediatric neurological practice emphasises the maturational changes observed in the newborn but only very briefly covers the importance of these potentials in meningitis and in the assessment of paediatric hearing loss.

The chapter on Auditory Brainstem Response in Acute Brain Injury is well illustrated and of value in its comparison of ABR with other neurological/neuro-radiological criteria. In addition there is some discussion of middle latency and 40 Hz responses. Regrettably there is no discussion of manipulation of the stimulus parameters to elicit more diagnostic information.

In conclusion, this book provides an overview of electrocochleography and brain-

stem evoked response audiometry, but does not cover the field of auditory evoked potentials. It would be of value as an introduction to those training in otology and neurology but is lacking in depth to provide information to an established clinician wishing to evaluate and interpret auditory evoked potentials.

LINDA M LUXON

Journal of Neuroendocrinology. Oxford University Press. Edited by Stafford Lightman 1989.

The Oxford University Press has launched Vol 1, Number 1 of their latest journal: "a focus for the newest ideas, knowledge and technology in the neurosciences" which contribute to neuroendocrinology. It is edited by Stafford Lightman and a widely spread international editorial board in double column, glossy format.

JMS PEARSON

Neurological and Neurosurgical Intensive Care, Second Edition. Edited by ALLAN ROPPER and SEAN K KENNEDY (Pp 164; \$63.00.) Aspen Publishers Inc, 1989.

In 350 pages, with modest use of illustrations, 28 authors, mainly from the staff of the Massachusetts General Hospital, provide a substantial and detailed text discussing the care of patients best managed in neurological/neurosurgical intensive care unit.

There is a nice balance of the applied clinical physiology which underlines the general principles of neurological intensive care on the one hand, with the straightforward practical clinical management of specific neurological and neurosurgical conditions on the other. The book is very comprehensive, and includes useful chapters regarding the legal and ethical aspects of such patient care.

It is an ideal book for neurologists, neurosurgeons, anaesthetists and intensivists in postgraduate training posts and definitive posts. The book also has a place in the instruction of nurses and physiotherapists specialising in neurosurgical and neurological intensive care.

The way the book is arranged and edited goes a long way to soften the unevenness of a multi-author volume. This is helped, without doubt, by the fact that many of the authors clearly work together in their care of critically ill neurological and neurosurgical patients.

JMS WILKINSON