Book reviews

epitomised by the contribution on experimental autoimmune myasthenia gravis in which attention can now shift to documenting in detail possibilities for the pathogenesis at each stage in the sequence of events that leads to tissue damage. Immunological models of motor neuron disease have become legitimate material for inclusion in a book of this kind—although the evidence from studying the disease itself, presented later in the book, is a bit thin—but orthodox neuroimmunologists may have to hold on to their seats when considering the immunology of dyslexia.

The third section deals with the big three neuroimmunological diseases of the nervous system. The chapters on demyelinating disease are not so much disappointing, as predictable. The veteran troupe of distinguished commentators pulls no new tricks out of the bag in rounding up the usual suspects. The importance of the blood brain barrier in permitting inflammatory and demyelinating events to occur in the central nervous system is again emphasised but the role of trauma in this sequence is less plausibly argued. Most citations in the chapter on acute disseminated encephalomyelitis are from the literature of 20 or more years ago, reflecting the increasing rarity of this prototypic immunologically mediated demyelinating disease; the new material is mostly concerned with general ideas on mechanisms of demyelination. The comprehensive accounts of the neuropathy associated with IgM paraproteinaemia, and humoral mechanisms of tissue damage in Guillain Barré polyneuritis each illustrate that, as in the Lambert Eaton syndrome, immunotherapy has itself provided important clues to pathogenesis through the process of reverse immunology. It is clear that not everything has yet been learned about myasthenia gravis: the aetiology remains obscure and the synthesis offered here could equally have concluded an account of multiple sclerosis. The chapter devoted to immunological disorders involving the thymus, necessarily focuses on myasthenia gravis, but not to the exclusion of other conditions which will interest neuroimmunologists. Some contributors lean heavily on their own research, as for example in the account of polymyositis, whereas others have written more general reviews. The danger of the former approach is that the same theme tends to be repeated; suppressor phenotype and function in samples recovered both from the circulation and affected tissue feature prominently in the discussion of multiple sclerosis, myasthenia gravis, polymyositis and myotonic dystrophy. Finally, in this section, there is a

lucid account of the success and failure in the eye's attempts to maintain its immunological privilege.

The next part lists a heterogeneous collection of conditions which the editors presumably thought fit to separate from the more established neuroimmunological diseases. There is a thorough account of borreliosis, and new thoughts on cerebral lupus—again emphasising the dissociation between clinical and serological evidence for disease activity and stressing the role of antiphospholipid antibodies in causing tissue damage. The chapter on glioma fails to mention monoclonal antibody therapy, and the account of paraneoplastic disorders, whilst listing all the conditions recognised to have an immunological basis, is poorly referenced and omits most of the original publications. The interaction between genes, epilepsy, phenytoin and IgA deficiency is discussed by one of the editors who concludes this section with a brief account of neurological complications of immunodeficiency, a topic which would of course now justify an entire monograph of its own. The inevitable rate at which a book of this kind gets out of date is also demonstrated by the relative lack of molecular biology—a deficiency remedied in the chapter on narcolepsy, surely one of the most unlikely disorders to have taken pole position in the HLA and disease stakes. Seemingly, the notion of lymphocytes lulling the reticular formation to sleep has given way to a less immunological concept of MHC molecules acting as receptor for transmitters involved in wakefulness.

The catalogue of laboratory tests available for investigating neuroimmunological disease, which follows, is useful but anyone actually wanting to apply one or other technique will need a more detailed recipe book; the value of investigating the cerebrospinal fluid as a peepshow on what is going on in the brain itself is authoritatively described but, although it is undoubtedly one of the major achievements of modern neuroscience, imaging of the nervous system fits a little uncomfortably into this book. Treatment is dealt with as and when it arises in discussion of the individual diseases, but the book ends with accounts of the complementary roles of immune suppression and stimulation, emphasising the *in vitro* actions of each drug, a little immunophilosophy, and futuristic strategies for treatment.

It is inevitable that a multi-authored book which sets out to be encyclopaedic in its coverage of the subject, will be something of a curate's egg but, for the moment, this is the definitive text on neuroimmunology.

DAS COMPSTON

Temporal Lobe Epilepsy 1948 to 1986; a Biographical Study. By Christopher Ounsted, Janet Lindsay and Peronelle Richards. (Pp 129; £12.00.) Oxford: Blackwell Scientific, 1988.

The essence of this book is a description of the lives of children with temporal lobe epilepsy. It may be divided into three parts: a prospective study of 100 children with epilepsy; an assessment of surgical treatment; and a discussion in the pathogenesis of partial epilepsy.

The book is remarkable in that it provides excellent follow up data over nearly 40 years with no subjects lost. The development of each case is viewed not in terms of the seizure disorder but in terms of the patient as an individual. For example schooling, psychosexual, domestic and employment progress were monitored. The results of the studies are clearly presented and well illustrated by case reports.

In spite of these very good points the prospective study of children with epilepsy is of limited applicability. The authors repeatedly state that the patients were "unselected", although I think that the entry requirements would introduce a bias towards more severe cases. Indeed, 67% had a clearly identifiable aetiology and only 32% became seizure free and independent.

The chapters on neurosurgical treatment are well written and provide a useful assessment of hemispherectomy in 18 patients and temporal lobectomy in 65 patients. Again it is important to view outcome in relation to patient selection. For example, 30 of the temporal lobectomy patients had mesial sclerosis, which, as Jean Aicardi states in the foreword, is unlikely to occur in contemporary series. The chapter on pathogenesis is a reprint from an earlier "Clinic in Developmental Medicine". It remains interesting and is appropriate to the scope of the book.

In conclusion, this book is easily read and provides an interesting perspective on the effect of temporal lobe epilepsy on the lives of a group of children. However, much of the prognostic information may be of limited applicability.

D FISH

Electroencephalography. Edited by Ernst Niedermeyer, Fernando Lopes da Silva. (Pp 940; £81.00.) Baltimore: Urban & Schwarzenberg. UK: Williams & Wilkins Ltd, 1987.

This edition is larger than the first and covers a wider range of newer techniques. The gen-

eral outline and style of the book in the format of small chapters allocated to specific problems and clearly defined topics is admirable and easy to follow. The historical approach to a point of discussion which most authors followed is very enjoyable. This is quite important to grasp the evolution of our understanding and how "a small plant has grown into a remarkable tree". The book presents a successful mixture of academic and clinical elements to a degree that makes it appealing but some chapters were more successful than others in this regard. The subjects are generally well referenced though every now and then I encountered some inadequacies in this regard (pages 95, 166, 763, 797, 828 ... etc) and noted that British and European contributions have a smaller share of quotation in general, not an exceptional observation in most reviews from across the Atlantic.

Some chapters stand out better than the others. I particularly liked the ones on Epileptic Seizure Disorders by Niedermeyer and Nonspecific Abnormal EEG Patterns by Sharbrough. I was disappointed by others like the chapter on Activation Methods by Takahashi. Some individualistic approach about certain problems in the EEG on which there is no wide agreement and which sometimes appears in the book is most evident in this chapter especially in relation to the subject of photosensitivity. I was also surprised to find that this phenomenon was not treated in greater depth. The book has tried to have a total grip of new changes in the field of the EEG. Chapter 2 referred to some new advances in localising current fields within the brain using magnets but the chapter was disappointingly short and could have expanded more to include some of the most recent clinical data. There is also no adequate mention of the Cerebral Function Monitor of Prior and Maynard which draws admiration from many clinicians especially in monitoring for status epilepticus.

The section on evoked potentials has enlarged from two to six chapters. In the chapter on VEP, Celesia uses the term "transient-VEP". This is a new term to me. The author states that transient-VEP could be produced by patterned and unpatterned stimuli but later on uses the same term when talking about pattern reversal VEP. Multiplicity of terms is always confusing especially to newcomers to the field. In this chapter derivations are not adequately shown on the diagrams nor explained in the text. Many people would not agree with the statement that "Absence or prominent amplitude depression of responses to stimulation of both temporal or both nasal fields is

unequivocal evidence of chiasmic impairment". This is probably true in most cases but we are all aware of the effect of variability of visual fixation and vigilance levels which can occasionally produce changes that mimic pathological conditions. I think that the term "unequivocal" is too forceful.

I was very pleased to see the cautious approach to the interpretation of the BAEP adopted by the chapter on this subject by Celesia and Grigg. The widespread application of EPs has led to concern among many of us about overuse and misuse in addition to quality and standardisation.

Among the chapters on EPs, I liked most the one on SEPs by Erwin *et al.* Though it adopts the American EEG Society's guidelines for methodology and techniques (which I personally use) it presents excellent reviews for these with arguments for and against each. It clarifies some of the confusion in the literature about the terminology of various components and presents a good account on the concept of far and near field potentials which most textbooks on the subject fail to provide. Overall this chapter has well served the purpose of a short account on the SEP and its applications and limitations.

Other points include: no strict standardisation of symbols and terminology is present (for example frequencies are described in various ways and EEG diagrams are presented in various styles where montages are indicated either by symbols or head diagrams). EEG traces are generally adequately reproduced except occasionally (such as fig 51.7) but some of the diagrams in the EP section do not have montages and derivations indicated on them. I noticed some mistakes in the indexing (infantile spasm: 367-369) and many typographical errors (pages 770, 809, 820, 828 ... etc).

This is welcome as a book to review the state of affairs in this subject especially being a large one volume textbook. It certainly has a place in between the huge multivolume handbook and a number of smaller books. I wish this textbook well and I am certainly pleased to have a copy of it and warmly recommend it to colleagues. The book is admirably reasonably priced for its size in a hardback version.

GORAN A JAMAL

Concepts in Pediatric Neurosurgery Vol 8. Edited by A E Marlin. (Pp 224; £84.60.) Basel: S Karger, 1988.

This is the eighth in the Annual series that records the proceedings of the American

Society for Paediatric Neurosurgery.

I have criticised the dullness of previous editions in past reviews but in this volume the standard has definitely improved. For to start, there appears to be a discernible theme, the first 12 chapters (out of 22) are concerned with various aspects of spina bifida, the Chiari malformation and hydrocephalus (readers of a practical disposition should not be put off by the first chapter, The Application of Mathematical Modeling to Hydrocephalus Research by Rekate *et al.*, in which computer simulations are manipulated until they conform to clinical observation!). Two chapters of myelomeningocele repair and three on the Chiari malformation allow sufficient elbow room for individual ideas and possible areas of controversy to become discernible. Later chapters cover a variety of subjects including ultrasound examination of the paediatric spine, treatment of the rare os odontoideum and (from Epstein) a clear statement of the indications and limitations of surgery for childhood brainstem tumours.

RICHARD HAYWARD

Examination of the Cranial & Peripheral Nerves. By Orrin Devinsky and E Feldman. (Pp 117; £11.95.) Edinburgh: Churchill Livingstone, 1988.

This paperback contains useful dermatome, peripheral nerve and sclerotome charts with extensive tables on segmental and peripheral innervation of muscles. There is also a section on testing individual muscles very similar to that in the Medical Research Council's booklet—"Aids to the examination of the peripheral nervous system". The authors claim this to be an "easily accessible, succinct reference" work and certainly this applies to peripheral nerves. It is well laid out and will fit into the pocket.

The inclusion of "Cranial" in the title is misleading for apart from an anatomical line and a figure for trigeminal sensory innervation, detailed examinations of the cranial nerves are not discussed. There is a helpful short section on autonomic function (although no mention of the use of weak pilocarpine in testing for denervation hypersensitivity in the pupil) and some brief notes on examination technique, entrapment syndromes and hysterical patterns.

Although there is a wealth of information in this work, in my view it will not replace the MRC publication in the United Kingdom particularly as the latter is significantly cheaper.

T FOWLER