Book reviews

Neurotransmitters and the Cerebral Circulation. (DERS Monograph Series, Volume 2). Edited by ET MacKenzie, J Seylaz and A Bes. (Pp 270; \$54.50.) New York: Raven Press; 1984.

The maintenance of uninterrupted blood flow for the supply of substrates, glucose and oxygen is essential for normal brain functioning. Disruption of the cerebrovascular bed has such dire consequences that not surprisingly much research has gone into understanding its organisation and controlling mechanisms. This volume presents the proceedings of a symposium on neurotransmitters and the cerebral circulation, held in 1983.

The various chapters making up the book cover a variety of topics from the nature of neurotransmitters and neurotransmitter receptors present in cerebral vascular tissue through the control of cerebral circulation to the effects of altered cerebral blood flow on brain function and involvement in cerebrovascular disease. The most striking point, however, is the obvious difficulty encountered in studying cerebral blood flow owing to the complexity of its organisation and the relatively slow rate of progress which can be made in this area.

Despite the difficulties, evidence is presented for both extrinsic and intrinsic innervation of cerebral vessels involving at least, six systems of nerve fibres utilising noradrenaline, acetylcholine, VIP, neuropeptide Y, Substance P and GRP as transmitter substance. Ligand binding studies have revealed the presence of adrenergic, histaminergic and cholinergic receptors but these studies are in their early stages. Indeed, so far 5HT and dopamine receptors have not been detected by ligand binding techniques despite other indirect evidence of their existence. It is not surprising in view of the presence of multitude receptors and transmitter substance that many of the following chapters deal with the various involvement of adrenergic, 5HT, dopaminergic and GABA systems in the control of cerebral blood flow. Particularly interesting were the data on dopaminergic involvement in cerebral blood flow presented by Dr McCulloch and the discussion of the involvement of prostaglandins and other eicosanoids in acute cerebrovascular disease by Drs Pickard and Walker.

Overall, a book of considerable interest

presenting a modern view of a difficult area but one that will enlighten the interested reader.

P JENNER

Signs and Symptoms in Neurology. Edited by Phillip D Swanson. (Pp 401; £28.00.) London: JB Lippincott Co. Distributed by Harper & Row Ltd, 1984.

It is stated in the author's preface that this book is aimed at helping with the differential diagnosis of neurological problems encountered in hospital practice or the surgery. Nine contributors from Seattle have combined to write about common neurological symptoms and signs. The subjects include chapters on motor and sensory disturbances, visual, auditory and vestibular upsets, disorders of cognition, paroxysmal disorders and disturbances of consciousness, infections, autonomic dysfunction and genetic disorders. Like the curate's egg the book is good in parts.

My main criticism is to know how much this will help its intended readers. There are useful charts of muscle actions and their innervation, dermatome charts and tables of symptoms and signs relating to root and peripheral nerve lesions. There are excellent tables on pupillary testing with pilocarpine in different dilutions, and for the pharmacological testing of the pupils in Horner's syndrome. Anatomical line drawings of the central and peripheral pathways help in the explanation of the sites of neural damage which cause various symptoms. There are helpful sections on ataxia and involuntary movements. There is a well set out and most informative chapter on infections with a useful section on those in the immuno-compromised patient.

Interspersed in the text are only brief descriptions of clinical conditions: these often appear too short to give adequate detail. Perhaps tables of causation with more emphasis on the frequency of different conditions might be valuable. Twenty four pages are devoted to disturbances of the autonomic system but it is disappointing to find that the practical details of tests of autonomic function are given in one table and it would be necessary to consult other texts to perform many of these tests. Three pages are used to list the syndromes of congenital and hereditary sensorineural deafness; many of these appear rare and the province of a specialist. There seems to be an uneven spread of information without sufficient emphasis on symptoms and

signs relating to important and common conditions.

Although there is a wealth of useful information in this book it is not always easy to find. Clinicians will have to supplement the details given with the help of further neurological texts, particularly as there may be insufficient information about the practical performance of certain investigations, and there is little account of treatment. For these reasons I fear that sales in this country may not be widespread but it may well prove useful reading for those involved in teaching.

T FOWLER

Management of Pituitary Disease. Edited by PE Belchetz. (Pp 537; £35.00.) London: Chapman and Hall Medical, 1984.

Multi-author texts of pituitary disease frequently suffer from biased accounts of management reflecting the individual views of contributors. The end result is a disjointed series of chapters in which conclusions are firmly stated but diametrically opposed. The editor of this book however, whilst recognising the need for authoritative contributions from a wide panel, has provided cohesion by interposing a series of over-views which seek to preserve the balance in controversial areas. This approach has been largely successful and the reader is able to assess the current status of different treatments on the basis of an independent analysis. Each of the four chapters on pituitary tumours for example, includes a section on radiotherapy, medical and surgical treatment followed by the editor's view of the place of each. Inevitably an unequivocal ranking of results is not always possible but the entrenched positions often adopted by protagonists of a particular method of treatment are at least mitigated.

Less controversial aspects of pituitary disease are covered in sections on anatomy, physiology, biochemistry and pharmacology. The accounts of endocrine, ophthalmological and radiological investigation are particularly useful. Pathology of the pituitary is clearly presented but the classification of pituitary tumours may be unfamiliar to readers in the UK and North America. The book includes a useful chapter on pituitary disease in children.

The short-comings of this book are few but the omission of a specific chapter on disease of the posterior pituitary is unfortunate. The management of pituitary apoplexy, though rare, would also seem to

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warrant a separate section. Consideration should have been given to the role of transphenoidal surgery as well as transfrontal surgery in relieving chiasmal compression due to massive tumours.

Notwithstanding these comments this is an excellent book and can be highly recommended.

NF LAWTON

Diagnosis and Treatment of Pineal Region Tumors. Edited by Edward A Neuwelt. (Pp 393; £68.00.) London: Williams & Wilkins, 1984.

Tumours of the pineal region are uncommon but recently their treatment has become controversial. Put simply the problem is that neuroradiological investigations cannot certainly distinguish between benign and malignant pineal tumours. For benign tumours the treatment is complete excision but if the tumour proves to be malignant, tumour cells may be disseminated. Should the tumour be treated by trial of radiotherapy or should the diagnosis first be established by histology? These controversies are fully discussed in the book and the various managements presented very evenly. A firm but liberal editorial hand is evident throughout and most chapters have a brief summary. The bibliographies of these chapters are additionally meant to be combined at the end of the book although I noted several omissions.

There is a brief but adequate chapter on neuro-ophthalmology and a larger interesting chapter on neuroradiology outlining a diagnostic strategy. The author considers angiography is essential for all patients with a pineal mass although admitting that it is intended as an aid in surgery rather than diagnosis.

The book is profusely and well illustrated and the drawings and photographs of operative approaches maintain a high standard. The three major surgical approaches of infratentorial supracerebellar, occipital transtentorial and the transcallosal are described and illustrated. The chapter on microsurgical anatomy is first rate with excellent drawings and photographs some in colour and particularly valuable schematic drawings and colour plates giving the appearance at operation by different approaches. All the most modern techniques are described including stereotactic biopsy which in part ends the controversy about open biopsy with risk of

dissemination or observation of the response to irradiation.

The general conclusion must be that treatment of hydrocephalus and stereotactic biopsy is the first step followed by irradiation if the tumour is malignant or radical excision if benign. Tumour histology is therefore of great importance and is given full treatment including an excellent review of their immunopathology. The chapter on radiotherapy reviews the literature and finally suggests that large volume irradiation is preferable although not routine craniospinal irradiation.

A beautifully produced book amply justifying the forward "an outstanding contribution to neurosurgical literature".

ER HITCHCOCK

Neuromuscular Manifestations of Systemic Disease. By Robert B Layzer. (Pp 434; \$75.00.) Philadelphia: FA Davis Co. UK Distrib: Quest Publishing Agency, 1985.

This is an account of peripheral motor disorders (muscle and nerve) which affect man in the context of generalised disease and its treatment. The initial chapter deals with the diagnosis of various neuromuscular syndromes (for example acute generalised weakness, myoglobinuria, cramps) and makes some apposite remarks about the interpretation and necessity of certain laboratory investigations. There follow eight chapters covering mineral and electrolyte, endocrine, infective and inflammatory, neoplastic, renal, circulatory, nutritional and gastrointestinal disorders. Finally there is an excellent section on the complications of medical and surgical treatment. The book is comprehensively referenced, at least up to 1981 and early 1982, and is well indexed.

It is a pleasure to read a single author work on such a wide range of subjects: personal opinions are clearly stated, at times pointedly, and many difficult aspects of diagnosis and management analysed at some length. Of particular note are the discussions about electrolyte disturbance, a helpful section on the differential diagnosis of plexus lesions in malignancy and the analysis of iatrogenic neuromuscular disorders. One aspect not covered in any particular detail is poisoning with heavy metals.

Many physicians in the UK should find this a useful and easily readable book which bears closely on everyday referral practice in a general hospital setting. It

benefits from not being too large and in being somewhat selective in the topics dealt with in depth.

CM WILES

Psychiatric Ethics. Edited by Sidney Bloch and Paul Chodoff. (Pp 368; £6.95.) Oxford: Oxford University Press, 1984.

This is a very good book. It consists of 18 chapters on various aspects of psychiatric ethics. Authors are about evenly divided between both sides of the Atlantic and the majority are psychiatrists. However, an Oxford philosopher, Professor Richard Hare, makes an astringent and thought provoking contribution, and Professor David Mechanic, from Rutgers, gives a sociologist's view. Most psychiatric activities, including diagnosis, research, psychotherapy, ECT and psychosurgery, drug treatment, sex therapy, compulsory care and confidentiality are discussed at length. There is a useful chapter on how psychiatric ethics should be taught. Some of the situations described, particularly the legal pronouncements on psychiatric practice are fortunately confined, at present, to the USA but it is instructive to read about them. Although the situation in the Soviet Union is described in detail, there is no mention of the dreadful abuses of psychiatry in Germany before the war, nor of the ethical issues involved in the care of the mentally handicapped. But these are minor criticisms. This is a valuable book, which could be read with profit by any member of the "greater medical profession".

JLT BIRLEY

Metabolic Probes of Central Nervous System Activity in Experimental Animals and Man. (Magnes Lecture Series Volume 1.) By Louis Sokoloff. (Pp 97; £16.50.) Oxford: Blackwell Scientific Publications, 1984.

My only quarrel with this masterly little monograph is its title. Louis Sokoloff has been in the field of measuring cerebral blood flow and metabolism for three decades and is the originator and principle exponent of the ^{14}C deoxyglucose technique for measuring cerebral regional glucose metabolism. His description of the theory and practicalities is an excellent introduction and exposition of the use of