Book reviews

The style of the book is simple and easy to follow. There are very few flaws and mistakes. One, however, keeps recurring throughout the text: abrupt placenta (sic).

This volume is a welcome addition to our rather small number of neonatal pathology texts.

M ERDOHAZI

Regulatory Peptides of Gut and Brain. Edited by RA Gregory. (Pp 318; £9.50.) Edinburgh: Churchill Livingstone, 1982.

Neurologists must have been following the explosion of information about peptides in gut and brain with some amazement. Clinical practice has not led us to suppose that there would be such a dramatic interrelation between these two organs. However, since about 1974, it has been revealed that many of the peptides present in the gastro-intestinal tract are also present in restricted areas of the brain. To have to consider that hormones such as cholecystokinin, vaso-active intestinal polypeptide, and bombesin must be involved in the workings of the nervous system may appear a difficult concept to grasp. Likewise, the discovery that certain neurotransmitters, such as substance P, the enkephalins, and neurotensin are widely distributed in the gut as well as the brain also has seemed surprising. The very number of these gut-brain peptides is amazing; at a recent count, twenty-one such substances have been identified, and there may be many more. Many of these regulatory peptides can be found in the gut and the nervous system of lower animal forms, even in such coelenterates as Hydra. It seems likely that peptides came into use as neuronal chemical messengers very early in evolution. Another remarkable aspect of regulatory peptides is the discovery that they co-exist in both central and peripheral neurons with classical transmitters such as acetylcholine, noradrenaline, dopamine and serotonin. Why two chemical messengers should work better than one remains a mystery. Indeed, the function of most of these peptides in the brain is unknown. This issue of the *British Medical Bulletin* presents a fascinating review of the whole topic of gut-brain peptides. Development of a series of reliable and well-defined radioimmunoassays for a variety of peptides, and their exploitation for immunocytochemical localisation of such peptides in brain and gut, stemmed from the structural characterisation and synthesis of many of these molecules. The availability of such powerful tools has led to a remarkable explosion of experimental

work in the field. For anyone interested in the area, this volume will provide an excellent introduction to the literature. To those already involved, it represents an authoritative review of progress.

CD MARSDEN

Normality and Pathology in Cognitive Function. Edited by Andrew W Ellis (Pp 327; £19.20.) Academic Press, 1982. London.

A central theme underlies this collection of essays—the benefit to be derived from integrating the fields of academic cognitive psychology and clinical neuropsychology.

In the Introduction, Dr Ellis calls for a two-way flow of information between specialists in normal and in pathological conditions. He suggests, the findings of cognitive psychology can illuminate neuropsychological analyses and the analysis of neuropsychological syndromes can assist in the postulation of theories of normal functioning. The book contains ten contributions covering various fields of inquiry: the theoretical issues involved in the construction of models of mind in health and disease; the analysis of language production, reading and spelling; studies of object and face recognition, memory, spatial orientation and motor action. There is also a final chapter on neuropsychological aspects of the arts. Most of the contributions are based on a detailed analysis of rare clinical case studies.

The book does provide a new perspective for both the academic psychologist and the neuropsychologist, but it has limited relevance for the practice of clinical neuropsychology. Furthermore, a questionable validity can be attached to theoretical models of normal cognitive functioning which are derived from analyses of single case studies.

MARIA A WYKE

Rehabilitation of the Neurological Patient. Edited by LS Illis, EM Sedgwick and HJ Glanville. (Pp 424; £22.50.) Oxford: Blackwell Scientific Publications, 1982.

Rehabilitation in medicine has traditionally come a poor third after diagnosis and treatment, and because of its low status in the eyes of doctors there has in the past been a lack of scientific method and objective evaluation applied to its problems, methods and results. This has applied perhaps more in neurology than in other specialties where rehabilitation is a major problem (such as rheumatology and spinal injury) and is not to the credit of neurologists.

Here is a readable and up-to-date account, largely from Southampton and Bristol, of basic recent advances and prospects in neurological rehabilitation. In the first section, the pathology and pathophysiology of disease, plasticity and recovery in the peripheral and central nervous system are reviewed, and there is a most stimulating chapter on the role and potential of clinical neurophysiology in rehabilitation. Problems of rehabilitation in various neurological conditions occupies the central three-fifths of the book. All these contributions are well thought out and useful and some (such as those on peripheral nerve, neuropathic bladder and chronic pain) are excellent.

The last section, on future possibilities in neurological rehabilitation, contains, fascinatingly juxtaposed, a brilliant engineer's account of the Southampton powered hand, a complete system still in development, against a sad "post mortem" on tactile sensory substitution, another complex system, which blind patients could learn and was useful, but which was never quite worth their while, at least as an aid to mobility. Overall, this should be read with pleasure by all doctors, and others whose work involves them in neurological rehabilitation.

DN RUSHTON

Epidemiology and Prevention of Mental Illness in Old Age. Edited by Gudmund Magnusson, Johannes Nielson, and Jorgen Buch. (Pp 109; Dkr 90.) Denmark: Nordisk Samrad for Eldreaktivitet, 1982.

This publication of the Nordic Gerontopsychiatric Symposium held in Denmark in April 1981 is a timely reminder that, for patients and their families, the prevailing threat to the comfort of old age is the tragedy of dementia. Although many clinicians can recount anecdotal experiences of rare, reversible causes of the condition, the disconcerting truth is that (for the majority of the 700 000 affected in the United Kingdom) the disorder has no recognisable epidemiological patterns—beyond its association with increasing age. Moreover, in the United Kingdom, less than 2% of the retired population are in-patients but they occupy 60% of hospital beds—yet, with the inevitable increase of our aged population during the next decade, the growing demands of confused, dysmnestic patients could easily swamp the acute hospital services. Indeed, only one new confused patient requiring hospital care every half-hour would be enough to do just this.

Laboratory medicine may provide the

vital clue to reconnect the memory circuits of the mind (in the same way that laevodopa has mobilised patients with Parkinson's disease); clinical medicine can offer to make the whole person as healthy as possible; but, epidemiology could provide the essential vision for effective medical investigation and management. This symposium report allows us to see how epidemiology has been progressing in Scandinavia and gives glimpses of the way similar work and ideas have been developing in Germany and England.

BRIAN LIVESLEY

The Practice of Pediatric Neurology (2nd edition). By Kenneth F Swaiman, Francis S Wright. Two volumes (Pp 1,322; £125.00). London: Year Book Medical Publishers Ltd. (a C. V. Mosby Publication), 1982.

More text-books of Child Neurology originate from the United States than from anywhere else and their quality has varied. This is an impressive book. For their second edition the editors have assembled a task-force of 48 contributors. Thirty-six chapters, in two volumes, are divided, logically, into three unequal sections. The first and shorter, "Evaluation of the patients' problems" discusses the history, examination and laboratory investigation, with due emphasis given to the developmental aspects. (I was happy to read that the examination should be pleasant and enjoyable for the child as well as for the examiner; this is true and worth saying, odd though it might appear in the context of the neurology of adults.)

In neurological textbooks the choice of whether to use a "symptom" or a "system" approach is a difficult one, and neither alone proves entirely satisfactory, so that a mixture of the two is often used. The authors have opted to use both methods, the second section being devoted to "symptoms and signs of neurologic diseases in childhood" and the third to a discussion of those diseases. The problems of duplication and repetition are to some extent overcome by the fact that the chapters on symptoms and signs are written, with one exception, by single authors, while those on diseases are entrusted to consortia of contributors numbering between three and seven, which include the writers of the relevant earlier chapter.

The neurodegenerative disorders, poorly described in many text books, are well dealt with by the authors concerned. If the allocation of particular diseases to the chapter on metabolic disorders or

degenerative disorders of the CNS seems rather arbitrary, this arrangement is symptomatic of the difficulty resulting from the varying stages of understanding of these conditions in terms of basic biochemical and enzymatic defects. The accounts given are probably the best available today, being well provided with references old and new, cis—and transatlantic, and with historical reviews of the evolution of knowledge. English neurologists will be glad to see FE Batten given credit for the early accounts of neuronal ceroid lipofuscinosis (though in truth the earliest account was that of Stengel in 1826—who had the disadvantage of writing in Norwegian).

In the chapter of seizure disorders with seven contributors, the section on febrile seizures stands out. In 3½ pages, Karin Nelson, whose work has done much to clarify the subject, gives a distillate of current data and concepts with clearly stated figures for risk factors for subsequent epilepsy after febrile seizures. In some other areas in this chapter not all would agree with the emphasis given. For example arguments are advanced why no arbitrary division should be made between infantile spasms and similar seizures of later childhood, but it seems to this reader that infantile spasms have sufficient features distinguishing them from other forms of myoclonic seizure to merit separate discussion. More stress might have been laid on the frequency with which stigmata of tuberous sclerosis are found in children presenting with infantile spasms and the numbers of such cases in which a parent and apparently healthy siblings may show similar stigmata. Among "partial seizures with elementary symptomatology", focal seizures of "sylvian" type with centrotemporal spike focus are given a short paragraph, but deserve more expanded treatment as being commoner than is generally appreciated and having a good prognosis. They also deserve some references, since it was as long ago as 1967 that Lombroso, in Boston, showed this type of seizure generally to have a favourable outcome both clinically and as regards the EEG. The good response commonly seen to carbamazepine could also have been stressed. I was rather surprised also to see liver damage listed among "common toxic symptoms and signs" for both carbamazepine and valproic acid. Admittedly the latter drug is used in Britain as sodium valproate, with which serious liver problems do not seem to be common. The suggested daily dose of carbamazepine, 20–40 mg/kg, is double that suggested by most

physicians and is likely to lead to the lethargy and ataxia which are listed as other common toxic symptoms and signs.

Learning disabilities and associated conditions are well reviewed. Methyphenidate, a drug perhaps under-used in Britain and much more widely used in the United States, is discussed helpfully and the need is stressed to monitor carefully not only the "target symptom", usually hyperactivity, but also other aspects of the child's function, such as learning and cognition. The question of food additives as a possible factor is increasingly raised by parents of overactive children in the United Kingdom as reports from North America become more widely known. The authors believe the available evidence does not justify use of an additive-free diet and it is helpful to have an authoritative statement of this kind based on wide experience, though one sees occasional cases in which the diet does seem beneficial.

Though expensive, the book seems good value for money. The quality of the illustrations, clinical, radiological and pathological, is generally high and there are many excellent anatomical drawings. The two volumes have an attractive cover design and are a pleasure to handle. The index and introductory adnexa are repeated in the second volume for the reader's convenience, a system deserving wider use. This book can be highly recommended despite some minor shortcomings of the kind mentioned.

EM BRETT

Current Topics in Neuroendocrinology: Adrenal Actions on Brain. Edited by D Ganten and D Pfaff. (Pp 153; \$34.70). Berlin: Springer-Verlag. 1982

This book is about the action of steroids, not catecholamines, on the brain. Fourteen authors from the USA, London and Utrecht give an authoritative account of five highly specialised topics. These include the presence of glucocorticoid receptors in the brain and particularly in the hippocampus; the role of steroids in brain development; the extremely complex feedback control mechanisms of anterior pituitary gland ACTH secretion; steroid actions at motor nerve terminals; and behavioural changes caused by steroids. This is all very heavy reading. Yet despite this the topics discussed have great research interest as well as considerable clinical implications. Among the steroid hormones, the effect of glucocorticoid on nervous system excitability are exceptional and spontaneous seizures were often reported in early patients