Book reviews

FRONTIERS IN NEUROENDOCRINOLOGY Edited by William F. Ganog and Luciano Martini. (Pp. xii + 442; illus.; £7 10s.) Oxford University Press: New York. 1969.

The idea is well established that the nervous system modulates the activity of the endocrine glands, and that the central link in this process is control by the hypothalamus of adenohypophyseal secretion. Only in the last two decades has it been appreciated that this link does not depend on secretomotor innervation of the gland, but upon neurohormonal stimuli in the shape of peptide 'releasing factors' carried from the median eminence through the so-called portal blood vessels of the pituitary stalk. Moreover, the conspicuous nerve supply from the supraoptic and paraventricular nuclei of the hypothalamus to the neurohypophysis is not simply secretomotor, but transports along its axons neurosecretory material formed in the hypothalamus for storage and eventual release as oxytocin and ADH. Furthermore, hypothalamic extracts are rich in more familiar neurohumoral agents such as acetylcholine, catecholamines, and 5-hydroxytryptamine, the function of which in this context is the subject of active debate.

The present book opens with a description by Kobayashi and Matsui of the fine structure of the median eminence, correlating light-microscopic with electron-microscopic appearances in a variety of species. The releasing factors, it is suggested, are carried to the median eminence by granules which differ mainly by their smaller size from those that carry the posterior lobe hormones. Still smaller granules appear to contain monoamines.

The next study, by Fuxe and Hökfelt, concentrates on the role of catecholamines, and distinguishes between neurones associated with the release of dopamine and others secreting noradrenaline. The former appear to control gonadotrophin releasing factors, while the latter have more extensive functions and may participate in the control of ACTH, growth hormone, oxytocin, and ADH secretion.

A later chapter by Halász describes the result of surgical isolation of hypothalamic structures from the rest of the brain, while the connections with the pituitary are retained. If the 'island' includes only the medial ventral hypothalamus, basal secretion of pituitary hormones including FSH is well maintained. Structures outside the medial ventral region appear to control rhythmic changes in LH and ACTH through afferents entering the medial ventral region anteriorly.

Davidson derives a similar picture of the central control of gonadal hormone release from more classical techniques, such as localized destruction or stimulation of the hypothalamus, or the direct introduction therein of minute amounts of sex hormones.

Glick describes how the introduction of radio-immunoassay has shown that the release of growth hormone is closely related to short-term fluctuation in glucose utilization, but has added little to our knowledge of its long-term relation to growth.

Motta, Fraschini, and Martini suggest that all the hormones of the anterior and intermediate lobes of the pituitary can affect their own rate of secretion by a direct feedback action on the hypothalamus. Such 'short' signals may play a more general role than the 'classic' feedbacks from the peripheral glands. De Wied reviews the exciting possibility that pituitary hormones, particularly growth hormone and ACTH, may have a stimulant effect on learning processes, presumably through a more widespread action on the nervous system.

This excellent book covers a number of other topics which have not been mentioned. It ends with a review by Geschwind of what is known of the chemical, intracellular action of releasing factors. It has much to offer both specialists and non-specialists alike, and deserves to be widely read.

G. C. KENNEDY

MODERN TRENDS IN NEUROLOGY Vol. 5 Edited by Denis Williams. (Pp. 304; illus.; £4 8s.) Butterworth: London.

Only three years separate the appearance of the new *Modern Trends in Neurology* from its predecessor. Either neurological progress is accelerating or there is a need for more frequent reassessments. Reading through the current volume gives a pleasurable sense of familiarity, as much of the material has appeared in the journals. This series performs a valuable service in making these papers more readily accessible. Moreover, the authors have been able to expand the introduction to their theses so that the non-specialist may see them in context and appreciate their significance. Particularly welcome is the effort to define the less familiar terms and to avoid the use of jargon.

The catholic choice of topics will surprise no one who already knows the Modern Trends series. All the major divisions of neurological science are represented and it is difficult to single out one subject without consciously doing an injustice to the others. Nevertheless it seems appropriate to mention Dr. Williams's own chapter on the propagation of epileptic events, which is a model of simplicity and precision.

He has selected an able group of contributors who have maintained a high standard of clarity, interest, and stimulation.

IVAN T. DRAPER

PRINCIPLES OF GENERAL NEUROLOGY By Barry Wyke. (Pp. xvi + 820; illustrated.) Elsevier: Amsterdam. 1969.

This large volume is an exceptionally useful compilation of some aspects of neurophysiology and neuropharmacology. The title is scarcely justified and the postgraduate student in medicine, surgery, and psychiatry to whom it is

addressed, would be justifiably dismayed to find no account of reflexes, posture, control of movement, sensation, the special senses, speech, or any aspect of neuropathology in a book subtitled 'an introduction to the basic principles of medical and surgical neurology'. It is also intended for anaesthetists, and for these readers there is no question that this book will be extremely valuable. The bibliography is vast, but as the list is not cited in the text it is impossible to know whether the paper has been quoted accurately or at all. The lack of citation undoubtedly makes for easier reading, but seriously detracts from the very considerable value of the book as a shelf reference.

J. A. SIMPSON

CLINICAL STUDIES IN NEUROLOGY 2nd edn. By Harry Lee Parker. (Pp. xiii+364. \$8.7.) Thomas: Springfield, Illinois, U.S.A. 1969.

This book is an account of a man's teaching, and for this reason alone would be noteworthy. The reader sits in a class of students through a year of neurological teaching, and each brief chapter narrates the weekly case presentations, with history, signs, diagnosis, and treatment. Many patients are presented with disorders ranging from the commonplace to the rare. The style is racy, often dramatic, frequently funny, and always the atmosphere is warm. It is so very easy to imagine the Dublin scene of the 1930s and to accept the characters of the cases shown.

Again and again the emphasis is on clinical observation, and perhaps most of all on the patient's history. Perhaps it is timely that these events, first published in 1956, should come to light again in 1969, and remind us that, in an age of haste, better physicians should take more time over, and greater care with, their patient's history.

The publishers claim that recent advances have been added, and it could be argued that the sections involving the treatment of epilepsy, and on the management of aneurysms should have been updated. But, possibly, this would have disturbed the historical perspective of the book. It is an account of a neurologist's experiences, and there will be no reader who cannot add to his own knowledge from it.

Of course it is not a textbook, but rather a series of narratives which achieve the rare distinction of combining enjoyment with education. It makes delightful reading.

IAN D. MELVILLE

DAS SYNDROM DER OPTISCHEN HALLUZINOSE By Fritz Reimer. Sammlung psychiatrischer und neurologischer Einzeldarstellungen. (Pp. 55; DM.19.80.) Thieme: Stuttgart. 1970.

The occurrence of formed visual hallucinosis, often Lilliputian and occasionally polyopic, is by no means uncommon in brain disease, more especially in cases in which there is both gross loss of vision and a moderate degree of dementia. One such case was reported in considerable detail by Bartlet (1951), who drew an interesting parallel between this variety of hallucinatory activity and phantom limb phenomena. Otherwise, this fascinating disorder has not perhaps attracted the attention it deserves, at all events in Great Britain.

In this short monograph, Dr. Reimer reports 17 personally observed cases in which there were marked and persistent visual hallucinations, mainly of small animal or human figures in lively activity. Not uncommonly these hallucinations betrayed an unmistakably sexual content. Although consciousness is said to have been clear and insight adequate, Dr. Reimer notes that his patients were all involved to some extent in their hallucinatory experiences. As in earlier cases in the literature, all Dr. Reimer's patients were in some degree demented and in most (though not quite all) sight was grossly defective.

Whether this syndrome is due to localized cerebral dysfunction is conjectural. In a majority of Dr. Reimer's cases (as in many others in the literature), there was good evidence of midbrain involvement, which he obviously considers to be of great importance in its origin. At the same time, the invariable presence of dementia suggests that a degree of coincident diffuse brain disease is a necessary condition. Perhaps, therefore, visual hallucinosis, like anosognosia, jargon aphasia, and ideational apraxia, is best regarded as due to a combination of 'focal' and 'general' psychological deficits.

REFERENCE

Bartlet, J. E. A. (1951). *Brain*, 74, 363.

O. L. ZANGWILD

ILLUSTRATED TUMOR NOMENKLATURE/NOMENCLATURE ILLUSTRÉE DES TUMEURS/ILLUSTRIERTE TUMOR-NOMENKLATUR 2nd revised edition. Prepared by H. Hamper and L. V. Ackerman. (Pp. xxv+283; 270 figures; DM.58.) Springer: Berlin, 1969.

This book is a sort of illustrated dictionary of common neoplasms of all parts of the body. Each entry consists of one photomicrograph and the tumour's name in English, French, German, Spanish, Russian, and Latin. The name of a given tumour seems to be much the same in all the languages in most instances. Occasionally one synonym is listed. The book is unlikely to prove useful.

DIE NEUROLOGISCHE SYMPTOMATOLOGIE DER NIEREN-INSUFFIZIENZ By Armin Prill. (Pp. 177; illustrated; DM. 64.) Springer: Berlin. 1969.

The dependence of a normally functioning nervous system on normal kidney function has been known for a long time. The author of this book has investigated the subject in a most thorough manner, particularly in cases of chronic renal insufficiency. His findings of disturbed blood chemistry are accompanied by the appropriate clinical findings and refined methods of nervous system function, such as electroencephalography and electrical investigation of peripheral nerves.

The author concludes that the neurological symptomatology of renal insufficiency may be a peripheral polyneuritis or, if the central nervous system is mainly affected, there follows a state with increased reflexes, extrapyramidal hyperkinesia, and at times cerebral seizures.

This volume gains in importance by an excellent bibliography and cannot be neglected by anyone whose