

Book reviews

CEREBRAL BLOOD FLOW Edited by M. Brock, C. Fieschi, D. H. Ingvar, N. A. Lassen, and K. Schürmann. (Pp. xx + 291; 113 figures; DM 58). Springer: Berlin. 1970. Measurement of the cerebral blood flow using isotope techniques is a field in which European centres have held the lead since their introduction by Lassen and Ingvar and by Harper exactly 10 years ago. Conferences at which the initiated argue out methodological controversies have been held with increasing frequency in recent years and are attended by steadily increasing numbers of participants. It must be admitted that the clinical yield from all this activity has remained somewhat meagre and the techniques are still confined to the relatively few clinics which have built up the necessary teams to carry out these studies. However, at the Mainz symposium in April 1969, of which this is the report, a real attempt was made to emphasize the clinical application and 60 of the 100 papers in this volume are based on data obtained from man.

The papers are grouped into seven chapters at the end of each of which there is a useful summary and comment by the chairman of that section of the meeting; and at the end Dr. Seymour Kety and Dr. Niels Lassen each present a rather longer comment, on methodology and on clinical application respectively. The chapters include ones on cerebrovascular disease, on carotid surgery, on tumours and intracranial pressure, on trauma, coma and dementia and on anaesthesia and hyperventilation therapy. The book is well produced, just the right amount of illustration, and not too many references. Many of the papers are very short, presenting summarized data and conclusions without the tedium of methods or reviews of the literature. Although the conference was primarily for an exchange of information between experts, the book provides a good introduction to the field, directing the newcomer's attention to the many possible fields of application of these techniques. If clinical management is not yet greatly influenced by the cerebral blood flow findings, it seems likely from the information presented here that that situation will not obtain for long. It is clear that brain damage of many kinds causes focal circulatory changes, both in flow at rest and in the reactivity of the blood vessels to changing circumstances—such as intracranial pressure, PaO₂, PaCO₂, blood pressure, and the like. Knowledge of the state of the cerebral circulation in various clinical situations may well lead the clinician to seek for means of improving situations about which hitherto he has only had retrospective information from the pathologist.

BRYAN JENNETT

MANTER'S ESSENTIALS OF CLINICAL NEUROANATOMY AND NEUROPHYSIOLOGY 4th edition. By Arthur J. Gatz. (Pp. viii + 438; 45 figures, £2.00) F. A. Davis: Philadelphia. 1970.

In the preface to the first edition, Dr. Manter presented the aims of his book. . . . 'This book has been written with the object of providing a short but comprehensive survey of the human nervous system. . . . To suit the

needs of the medical student, or the physician who wishes to review the nervous system efficiently, basic information is presented in concise form . . . ' Dr. Gatz also states his intention to preserve the objectives of the late Dr. Manter, and it was, therefore, with some anticipation that the reviewer opened this rare example of North American economy of words. Nor was he disappointed.

Description of the nervous system and the CSF has been divided into 24 chapters, most of which take a particular disorder of nervous system function or structure on which to hinge a discussion of the relevant anatomy and physiology. By and large, this works remarkably well. The text is illustrated by black and white drawings, which are very descriptive and as clear as this technique allows, and there is a useful index.

The discussion of clinical signs and symptoms is quite good, and the main features of the neuroanatomy of the nervous system, though over-simplified, are well presented. The physiology of the nervous system suffers most from the concise presentation, and is, at best, a primitive commentary.

Dr. Gatz mostly writes a precise account of his topics, no doubt reflecting his profession as an anatomist. However, his use of the term 'suppression' as synonymous with 'inhibition' is a serious slip from the straight and narrow.

Within the limitation of size, this small paperback will serve a useful function to medical students and others in the way Dr. Manter originally visualized. Considering its presentation, however, it is rather expensive.

GEOFFREY RUSHWORTH

MYELINATION OF THE BRAIN IN THE NEWBORN By Lucy B. Rorke and Helena E. Riggs. (Pp. 108; illustrated; £5.00). Lippincott: Pa. (UK agents, Blackwell Scientific Publications: Oxford). 1970.

This book, which is basically an atlas, is a fundamental and painstaking study which will almost certainly become a standard reference. It contains much more information than its title might suggest as 'the newborn' includes immature infants as well as the term infant; the former are divided into four groups with a range of birth weight from 740 g to 2,460 g. The various patterns of myelination encountered in the different groups are concisely and clearly described and correlated with the weight and the degree of development of the infant. The full page low power illustrations of myelin preparations are of excellent quality and, as nuclei can be as clearly identified as myelinated tracts, are a useful adjunct to anatomy in any age group. It is rather surprising that the illustrations at higher magnification in the introductory chapters do not attain nearly the same high quality of reproduction. A final short section dealing with the development of the convolitional pattern is not only beautifully illustrated, but is ample confirmation that the technique described by the authors for fixation of the infant brain should become a standard practice in paediatric pathology.

As Orville Bailey states in the foreword, it is sad that

Dr. Riggs did not live to see this valuable monograph published.

J. HUME ADAMS

THE BIOCHEMICAL BASIS OF NEUROPHARMACOLOGY By Jack R. Cooper, Floyd E. Bloom, and Robert H. Roth. (Pp. 217; illustrated; £3.00, paper back £1.90.) Oxford University Press: London. 1971.

To write a book on pharmacology based on the biochemical mode of action of the drugs is a brave enterprise. To do so for drugs whose action is on the central nervous system requires particular courage. This short volume is just such an enterprise, based on the course given to medical and graduate students at Yale University. Since our present knowledge of the physiology and biochemistry of the brain is pitifully inadequate to explain even the normal functions of this organ, it would be asking too much to expect it to be sufficient to explain fully the many subtle effects produced by drugs. For this reason, the book consists mainly of biochemistry and physiology, and relatively little neuropharmacology. Nevertheless, if only for its originality of approach, this book is to be welcomed. The information in it is up-to-date, clear and succinct, and the method of presentation—even if it cannot fully explain the actions of any drug—nevertheless provides many tantalizing glimpses of possible modes of action and many provocative cross-references between drugs whose actions are otherwise quite different. The book is open to some minor criticisms on layout and production—for example, the illustrations, especially the histological and electronmicroscopical reproductions, are rather poor and the legends not always fully informative—presumably this is in part explained by the low price. Overall, however, this is a useful and interesting account of those aspects of the physiology and biochemistry of the brain which are believed to be affected by drugs. The material is presented in a simple, easily understood fashion and does not make too heavy reading. It should be valuable for senior undergraduates and postgraduate students, not only in pharmacology but in physiology, biochemistry, and even for those physicians interested in the background of a group of drugs which are playing an ever-increasing role in clinical medicine.

J. S. GILLESPIE

DISEASES OF THE NERVOUS SYSTEM 11th ed. By Sir Francis Walshe. (Pp. xv + 381; illustrated; £3.00). Livingstone: Edinburgh. 1970.

This book, now in its 11th edition, requires no introduction from a reviewer as it has for long been the standard work for those wishing to acquire, within a brief space, knowledge of the art and science of clinical neurology, as opposed to mere factual information. An occasional appealing anachronism has been handed on through succeeding editions over 30 years, such as the prohibition of violent purgation in the treatment of strokes, and certain growing points in neurology receive rather less than justice, but the form and content remain as satisfying as ever. Dr. John Walshe has contributed two interesting chapters on the relations of liver and brain and on lead poisoning. It should perhaps be

added that the standard of proof reading has scarcely been worthy of this classic text.

W. B. MATTHEWS

MYELINATION By A. N. Davidson and A. Peters. (Pp. xiv + 238; illustrated; \$13.50.) Thomas: Springfield. Anatomist and biochemist have combined to provide a clearly and concisely written monograph that will be of value to anyone who has an interest in neurological disorders. The greater part of the book is taken up by the first two chapters which deal in considerable depth with the morphology, development, and biochemistry of the myelin sheath. The text is amply supported with diagrams and excellent electron micrographs. The three shorter chapters deal with abnormalities in the composition of myelin, myelin deficiencies related to inborn errors of human metabolism, and, a rather intriguing contribution, diseases affecting myelination in domestic animals. Each chapter is supported by a comprehensive list of references. The book not only contains a wealth of useful information, but is also most attractively produced. It is an important monograph that can be recommended without hesitation.

J. HUME ADAMS

THE DE LANGE SYNDROME By J. M. Berg, B. D. McCreary, M. A. C. Ridler, and G. F. Smith. (Pp. vii + 122; illustrated; £3.15.) Institute for Research into Mental Retardation Monograph No. 2. Pergamon Press: Oxford. 1970.

In 1933 Dr. Cornelia de Lange, who was professor of paediatrics in the University of Amsterdam, described a child with mental retardation associated with somatic signs. Although rare, it is being increasingly often diagnosed but, as is natural with a rare condition, it is uncertain which signs are consistent parts of a syndrome and which are coincidental. In this short monograph the authors report 18 personally observed patients and review the literature. They still feel unable to define the syndrome but certain features appear to be highly characteristic. These include mental and growth retardation, confluent eyebrows, microcephaly, brachycephaly, low-set ears, anteverted nostrils and a prominent philtrum. Abnormalities of the hands and feet and hirsutism add to a picture which immediately suggests the satyr of Greek mythology. The posture of the child on p. 26 is so classical that one can almost see the pan pipes—but a syrinx is one abnormality yet to be recorded. Pedigrees indicate a genetic factor, but no consistent chromosomal or biochemical abnormality has yet been identified. This careful review should help to define an interesting syndrome. It is well produced with clear tables and illustrations.

J. A. SIMPSON

NOTICE

1ST INTERNATIONAL SYMPOSIUM ON INTRACRANIAL PRESSURE 27, 28, 29 July 1972, Hannover. Topics: (1) methodology of ICP measurements, (2) physiological and pathophysiological aspects of ICP, (3) clinical and therapeutic aspects of ICP. Details from Dr. M. Brock, Neurochirurgische Klinik, Medizinische Hochschule, 3 Hannover-Kleefeld, Roderbruchstrasse 101, W. Germany.