tadpoles lost their colour after removal of the pituitary. Chemistry was brought to the anterior pituitary in the 1930's but it was not until 1954 that Lerner showed that the intermediate lobe was involved in pigmentation of humans followed by the extraction and later the synthesis of two melanocyte stimulating hormones, α and β MSH from porcine pituitary glands. Subsequently a peptide precursor of ACTH and lipotropic peptide hormone, LPH, which contains the sequences of endorphins and methionine enkephalin were isolated. The latest triumph has been the preparation of sufficient messenger RNA encoding for ACTH-β LPH to prepare complementary DNA for cloning. All these developments are described accurately in this book with a wealth of detail although the biological role of intermediate lobe peptides remains in doubt. There are major differences between pre-natal and post-natal endocrinology and the pars intermedia is not present in the adult human pituitary. This book will be of considerable interest to biologists and endocrinologists as well as neurologists concerned with the spectacular increase in knowledge gained in the last five years of the structure, location and function of pituitary peptides.

JD PARKES


The clinical consequences of disruption of the blood supply to the brain remain severe. One approaches a volume which deals with cerebral haemodynamics with particular reluctance to subarachnoid haemorrhage and raised intracranial pressure, with the hope of gaining some fresh insight into the mechanisms which are responsible for the clinical problems. The present volume is not an attempt at scholarly review of the subject but rather presents the analysis of considerable data on cerebral haemodynamics in man and monkey derived by the author himself, over more than two decades. The major limitations of the monograph may be traced directly to this. Much of the material which is described in the book is previously unpublished and consequently has not been subjected to peer review. The text provides a highly personal view of what are the major determinants of the level of blood flow in the brain. The perspective which is presented is somewhat dated (the bibliography contains, for example, only six literature citations from the past five years) and many of the advances which have been made over the last decade find no place in this monograph.

The volume is organised on conventional lines. The first two chapters are devoted to a general introduction to principals of the measurement technique (indicator dulation) and to a simple review of the relationship of intracranial pressure to volume and flow. A brief description of the preparation of the experimental animal and practical details of the methodology follow but these seem insufficient not only because of the unpublished nature of the data but also in view of the incorrect reference cited as providing further details. A systematic presentation of the data investigations in primates (dealing with intracranial pressure—blood flow relationships with induced changes in perfusion and arterial blood gas tensions) forms the heart of the book and contains little which would arouse major controversy among investigators in this field. The brief 3½ page chapter devoted to the effects of cervical sympathetic stimulation in which the author's observations provide little illumination, is particularly inadequate because of its failure to direct the reader to work of various investigators over the last 5 years who have provided a clearer appreciation of the role played by the sympathetic nerve fibres which innervate cerebral vessels. The remainder of the book deals with haemodynamic considerations in cerebrovascular disease in humans with particular emphasis on carotid obstruction and subarachnoid haemorrhage. While the presentation of the material from patients possesses considerable merit, as a consequence of its systematic nature and from the consistency which results from being drawn from the work of a single laboratory, discussion of the relevance of the findings in greater depths would have been beneficial in many areas, particularly the limited pharmacological review of the agents putatively responsible for the vasospasm. The principal value of this book lies, for those approaching this field of research for the first time, precisely in what it purports to be. It is the review of the author's personal experience in basic and applied cerebrovascular research and as such, emphasises the need for rigorous systematic investigation of the subject and of the difficulties to be faced in making even small advances in our understanding of cerebrovascular disorders.

JAMES MCCULLOCH


This volume flies under the colours of the Raven Press Advances in Neurology series but in its monumental format and equally monumental process of gestation it belongs to a distinguished line of volumes on epilepsy sponsored by the National Institute of Neurological and Communicative Disorders and Stroke. Unfortunately, in important respects it falls short of its predecessors.

The volume begins well, reviewing aspects of neurobiology relevant to epilepsy, including the cytology of the cortex and hippocampus (Peters and Scheibel), and ionic movements and synaptic physiology (Lux and Krnjević). Relatively short chapters discuss the glial and neuronal physiology of epilepsy (Sonnen, Crill and McNamara). Three imaginative chapters on structure activity relationships, are followed by what is ironically the best chapter in the book, surveying the mechanisms of action of convulsant drugs (Woodbury).

The 400 pages devoted to anticonvulsant drugs are disappointing. Twelve chapters concern phenytoin, eight the barbiturates, and one each, carbamazepine, the oxazolidinediones, the succinimides, the benzodiazepines, the carbonic anhydrase inhibitors, the ketogenic diet and sodium valproate. This lack of balance is compounded by a less than optimal selection of contributors. Some of the chapters on phenytoin and barbiturates present a few fragmentary observations adrift in a sea of speculations.

To a certain extent the unsatisfactory nature of the chapters on the mechanism of action of anticonvulsants reflects the present state of our knowledge. However, this does not excuse the failure of the chapters on barbiturates and benzodiazepines to discuss the evidence that these compounds enhance GABAergic inhibition. This failure is not adequately compensated by the final 'speculative' synthesis by Eugene Roberts.
Cerebral Hemodynamics in Man and Monkey

James McCulloch

*J Neurol Neurosurg Psychiatry* 1982 45: 478
doi: 10.1136/jnnp.45.5.478

Updated information and services can be found at:
http://jnnp.bmj.com/content/45/5/478.1.citation

**Email alerting service**

*These include:*

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

**Notes**

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/