a useful reference book but there will be more to be said on the subject in future, hopefully.

IAN MCKINLAY

The Cerebral Microvasculature Vol 131

This volume contains the proceedings of the Second International Symposium on the Pathophysiology of Cerebral Energy Metabolism, held in Belgrade in September 1979. About one-third of the chapters are contributed by the Yugoslavian hosts, while the remaining chapters are supplied by research groups chiefly from the United States and Western Europe. As implied by the title, the book is divided into two topics: one dealing with circulatory aspects of brain metabolism (dominated by chapters on the effects of cerebral ischaemia); the other dealing with developmental aspects of brain metabolism, such as macromolecular composition and turnover, development of structural interactions, and the effect of chemically induced convulsions on cerebral development and function.

Animal models for transient ischaemia (carotid artery occlusion or the use of pressure cuffs) were used by most authors to permit the study of possible post-ischaemic recovery of cerebral blood flow, spontaneous electrical activity, metabolite levels and enzyme activities. The observed post-ischaemic state of hypermetabolism is regarded by several of the authors as an indicator of metabolic damage incurred during ischaemia. KA Hossmann and his co-workers have compared the effect of post-ischaemic administration of barbiturates, hypothermia, and haemodilution in preventing this state of hypermetabolism, and conclude that based on biochemical and electrophysiological recovery, haemodilution offers the best protection. E Westergaard discusses the increased permeability across the blood brain barrier induced by acute hypertension and several authors report on the properties of isolated brain capillaries. The coverage of both topics is restricted to animal experimental studies. The book is probably most useful to scientists doing research in related areas.

MD O'Brien

Circulatory and Developmental Aspects of Brain Metabolism Edited by Maria Spatz, BB Mrsulja, Lj M Rakic, and WD Lust (pp 426; $49.50) New York: Plenum Press, 1980.

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AG CHAPMAN


This volume contains the proceedings of the Fourth International symposium of the European Society for Stereotactic and Functional Neurosurgery. They review recent progress and trends, mainly in the field of epilepsy and intractable pain. In the former, Rasmussen, Bancaud, and Talairach each writes of their experience and emphasises the value of stereotactically implanted chronic depth electrodes to locate epileptogenic foci or pathways for the spread of epileptic discharges. Gillingham advocates such studies in cases of intractable grand mal, and reports improvement after placing lesions in the globus pallidus and internal capsule. With recent progress in pharmacological control, it is hoped that such procedures will soon no longer be required in the management of "idiopathic" epilepsy; however, every attempt must be made to learn as much as possible concerning the underlying mechanisms during chronic depth electrode electroencephalographic recordings while these are still necessary; for the future, some cases of temporal lobe epilepsy and certain localised cortical lesions elsewhere in the hemispheres may be the only indication for surgical treatment.

Reynolds' report 12 years ago on the analgesic effects of periaqueductal grey matter stimulation in the rat, and the discovery of endorphine, has encouraged the search for outside sites for chronic electrical stimulation in the central nervous system for pain. Papers by Hosobuchi and Mundinger are clear and encouraging, and deserve particular mention.

Experiences in chronic cerebellar stimulation are conflicting, and what was first promised to be a useful therapeutic tool, does not seem to have lived up to its early promise.

JOHN ANDREWS


The pharmacology of the aging brain has become of increasing importance to the drug industry and is beginning...