macroscopic eye movements and lack of explanation and justification of the numerous statistical tests which clutter up the text. In conclusion this book could not be considered to be a teaching text because it neglects the problematic aspects of interpreting microtremor; however, it is of value as a source of references and an account of the author's considerable, everyday experiences with the technique.

MICHAEL GRESTY

Actual Problems in Multiple Sclerosis Research. Edited by Ejner Pedersen, Jorgen Clausen and Lis Oades. (Pp 409; D.kr. 434-42.) Copenhagen: FADL's Forlag, 1983.

This beautifully illustrated monograph examines the hypothesis that the chronic relapsing form of experimental allergic encephalomyelitis (EAE) provides a satisfactory model for multiple sclerosis (MS). The evidence depends largely on the histological resemblance of these conditions. Clinicians interested in the pathogenesis of MS will find the similarities and differences lucidly explained and clearly depicted. Acute ordinary EAE elicited with nervous tissue or myelin basic protein is an acute monophasic encephalomyelitis with little demyelination. However, the chronic relapsing form elicited in rats or guinea pigs, but most reproducibly in guinea pigs of one particular inbred strain (13), is characterised by the development of large demyelinated plaques with eventual gliosis which bear comparison with chronic MS. The authors refer more briefly to the spectrum of human demyelinating disease through acute perivenous leukoencephalitis, acute and chronic MS, regarding published cases of post-rabies vaccine encephalomyelitis and one case of inadvertent human EAE as resembling acute MS. The burden of the monograph is that the essential histological features of MS are reproduced by one or other form of EAE. These include initial perivenous inflammatory cell infiltration, increased vascular permeability, demyelination, remyelination and gliosis. The fate of the oligodendrocytes in EAE and MS plaques is difficult to ascertain since conclusive electron microscopic identification of oligodendrocytes depends on the demonstration of processes in continuity with myelin lamellae which are lost, by definition, in demyelinated lesions. In the active lesions of chronic EAE Lassmann

depicts both intact oligodendrocytes and cells resembling oligodendrocytes which are degenerating concluding that such damage is incidental to the main attack on myelin. The material from MS brains is relatively poorly fixed. Lassmann avoids depicting "oligodendrocytes" therein but he does discuss the controversial issue of what happens to the oligodendrocytes in the acute lesions, favouring the interpretation that these cells survive at least in the early stages of plaque formation. This issue deserves further examination as immunohistochemical techniques for identifying oligodendrocytes improve.

Clinicians and societies sponsoring research into multiple sclerosis could provide a real service by making necropsy material available for study as soon after death as possible to resolve this and other issues. Surprisingly good fixation can be achieved if central nervous system material is properly dissected and fixed in glutaraldehyde for electron microscopy. Snap frozen material may be needed for immunohistochemical staining of cell membrane antigens but as techniques improve paraffin and even plastic embedded sections are being used.

The inconclusive literature concerning fluctuations of blood, CSF and brain lymphocyte subpopulations and EAE and MS is ignored. The elusive nature of the antigen (s) causing chronic relapsing EAE is briefly discussed but the central issue of what precipitates the autoimmune state in MS is not addressed and chronic virological models of demyelinating disease are not compared with EAE. Discussion of these subjects would admittedly be speculative at present and this monograph does provide a solid basis of neuropathological fact on which the present and future generations of research into demyelinating disease will depend.

RAC HUGHES

Oncology of the Nervous System. (Cancer Treatment and Research Series). Edited by Michael D Walker. (Pp 424; \$69.50.) The Hague: Martinus Nijhoff Publishers, 1983.

This multi-author monograph, which forms part of a series on cancer research and treatment, provides an interesting and useful survey of the current state of research and treatment of brain tumours.

An introductory chapter on the epidemiology of central nervous system tumours is followed by a review of animal brain tumour models, and other chapters

cover basic concepts of chemotherapy and radiotherapy. Immunological aspects of gliomas are considered in a chapter dealing with the literature up to 1981, and there is a brief controversial chapter on the possible therapeutic implications of dietary manipulation of amino acid utilisation by gliomas. These chapters are balanced by practical clinical reviews of the use of chemotherapy, radiotherapy, and surgery in glioma management, and there is also a succinct chapter dealing with the surgical treatment of pituitary tumours. The role of steroids in the management of primary and metastatic brain tumours is also covered, and there is a good account of the pathological effects of chemotherapy.

The depressing state of malignant brain tumour management is all too apparent to any reader of this monograph, but the editor, Dr Walker deserves credit for enlisting so many competent authors, and most neurologists and neurosurgeons who can find time to dip into this volume will find something to interest them.

ALAN RIDLEY

Motor Neuron Disorder. Deficiency of Arterial Blood Supply to Spinal Cord and Brain Stem. By Patrick Stortebecker. (Pp 166; \$20.00.) Stockholm: Stortebeck Foundation for Research, 1983.

This title is a misnomer as the book is about motor neuron disease. The author who was an associate professor in neurology at the Karolinska Hospital in Stockholm, reviews the various aetiological theories namely, traumatic, toxic, neoplastic, infective, metabolic, and makes a strong plea for an all-embracing vascular basis.

Although that is not a new theory, the book is useful as a review and for its bibliography but the evidence is eclectic and not persuasive. The printing is poor and the writing could have been improved by an editor whose mother tongue is English. This book is too idiosyncratic to merit recommendation except as another stimulus to discover more about this puzzling and tragic disease.

F CLIFFORD ROSE