tials are all carefully considered and their findings put in perspective. Somatosensory evoked potentials from upper limb nerves, for instance, are honestly described as "... no more useful than careful clinical examination in determining the severity or prognosis of cervical spondylosis."

There are also strong chapters on the technical aspects of electromyography including a section on how to report results, upper and lower limb nerves and the investigation of neuromuscular transmission.

I have no hesitation in recommending the book to clinical neurophysiologists and to their clinical colleagues striving to assess the relevance of test results.

K R MILLS

The Cavernous Sinus. Edited by VV Dolenc. (Pp 419; DM240.00.) Vienna: Springer-Verlag, 1987.

This book, as so many others these days, is the product of a symposium, and, therefore, must be expected to be patchy. It has, however, considerable merit. It brings together authoritative papers on the anatomy from a variety of European authors notably in France and in Vienna whose particular interest is the cavernous sinus, with a detailed chapter on the cavernous sinus by Dwight Parkinson, one of the first to suggest that this area was in fact open to surgical interference. These chapters are amongst the best in the book. Also to be commended are the series of chapters, although of very varied quality on intravascular techniques which are now widely accepted.

The review of surgical techniques is perhaps a little less happy, although the stress placed upon the collaboration between surgeons of various disciplines is welcome and reflects the increased realisation that collaboration between neurosurgeons and their plastic, surgical and ENT colleagues is the way in which the subject may be advanced.

There are several papers on the management of aneurysms actually within the cavernous sinus which represent a distinct surgical advance and an interesting review of the world's literature on trigeminal neuroma curiously appended to the report of a single case.

The book contains many illustrations and is some 419 pages long including a rather

incomplete index. It will be of value to those who in the first place can afford the considerable cost (nearly £80 in British money), but who will welcome the outstanding chapters mentioned above with their profuse references. Its place, however, is likely to be in departmental rather than in individual libraries because of its cost.

LINDSAY SYMON

Central Nervous System Disorders of Aging: Clinical Intervention and Research. (*Aging, Vol 33.*) Edited by R Strong, W Wood, WJ Burke. (Pp 256; \$44.50.) 1987.

This is another symposium publication. It is based on a meeting held in Missouri in September 1986, sponsored by the St Louis VA Geriatric Research, Education and Clinical Center. It presents "information on the current state of knowledge of age-related neuropsychiatric disorders, neurodegenerative diseases, stroke, and molecular and cellular changes in the aging brain. Rather than providing a general overview ... selected topics in which significant advances have recently been made are examined in detail." It covers many clinical and experimental observations of Alzheimer's disease, it reviews pseudo-dementia, tardive dyskinesia, intervention in acute stroke, aging and sleep apnoea as well as papers devoted to molecular biology and membrane structure.

The clinical sections will be of interest to physicians, yet being in varying degrees discursive and exegetic these contributions are uneven and in many ways are less than satisfactory. The editors could have tried to link or harmonise the various sections to make for a more digestible text with at least some continuing theme.

There is an authoritative summary of the pathology of Alzheimer's disease, Parkinson's disease and ALS degenerations by Hirano, based on his Guam work. A survey of imaging details the technical principles of PET, MRI and SPECT scanning but experience in dementia and Parkinsonian states does not yet allow of any useful clinical inferences. The section on tardive dyskinesia provides a pharmacologist's view without giving deductions or experience to influence the treatment or prevention. There is a stimulating chapter on tran-synaptic degeneration by Burke *et al* who consider both forward and retrograde neuronal delay, the

latter invoking the post-synaptic receptor site as the primary lesion in Alzheimer's disease.

The basic science section is in some ways the most interesting, and certainly to the clinician the most informative. And yet, the necessary leap between the scientist and the patient is not made: there is sparse mention of disease, pathological processes and almost none of clinical issues in these sections which thus appear divorced and remote from the other chapters.

The publishers have chosen to use type-faces of varying styles and of varying density and size. The margins are ragged rather than justified and though clearly legible the appearance is congested and distinctly unattractive. Had this been achieved in the interests of rapid publication of the symposium within a six month period, it might have been excusable. Neurological readers—by their cautionary advice to purchasing librarians and with their own discretion in pulling out their own chequebooks will no doubt convey the general view of the current pretentious trend to the publication of each and every small one meeting.

JMS

Neurosurgical Anaesthesia and Intensive Care 2nd ed. Edited by TV Campkin and DM Turner. (Pp 352; £40.00.) Guildford: Butterworth Scientific Ltd, 1986.

This volume follows 7 years after the authors' excellent first edition and is divided into four parts *Physiology and Pharmacology, Basic Considerations, Clinical Neuroanaesthesia, and Intensive Care*. The reader is provided with a comprehensive, well written review of current literature integrated with thoughtful discussion of controversial issues incorporating the 50 years combined neuroanaesthetic experience of the authors. The chapters on clinical neuroanaesthesia particularly benefit from clear descriptions of the authors' experiences and clinical techniques, although the latter flavour the book towards the European market. There is an excellent reference section at the end of each chapter, a comprehensive subject index, and reasonable cross referencing between different parts of the book. The text contains few typographical errors but the CT scans have not reproduced well and might benefit from adjacent labelled line diagrams.

Part 1. Physiology and Pharmacology

The first part of the book comprises three chapters on cerebral circulation, intracranial pressure, and the intracranial effects of anaesthetic agents. Each chapter gives an overview of current knowledge and the implications of different clinical situations to neuroanaesthesia. In the chapter on intracranial pressure figure 2.4 is erroneously described on page 22 as showing oedema around a glioma rather than post-traumatic oedema. The third chapter contains an excellent description of the effects of various anaesthetic agents on intracranial pressure, brain compliance, cerebral perfusion pressure, cerebral blood flow, autoregulation and brain metabolism, together with critical appraisal of selection of agents for different clinical situations. There is good cross referencing of key points to later clinical chapters.

Part 2. Basic Considerations of Neuroanaesthesia

The first chapters in this section describe the fundamental components of neuroanaesthesia for cranial operations with useful reference to the authors' practice. I was concerned that the authors refer to the use of naloxone to reverse narcotics after neuroanaesthesia without comment on the potential complications of this agent after cranial surgery. The second chapter describes anaesthetic techniques for neuroradiology. The section on air encephalography could perhaps be shortened in favour of a section on anaesthesia for MRI. The increasing trend for neuroradiologists to perform many procedures under sedation perhaps warrants discussion together with comment on the role of the neuroanaesthetists for radiological embolisation techniques. The third chapter reviews induced hypotension, and the effects of available agents on cardiovascular, respiratory, renal, hepatic and cerebrovascular systems. The relative merits of different agents for different clinical situations and appropriate monitoring techniques are well reviewed. The final chapter in this section classifies cerebral oedema and describes general and specific methods of ICP reduction. A description of the authors' use of mannitol in neuroanaesthesia and their fluid regime to correct hypovolaemia would have been complementary. There was no description of combined use of loop diuretics and plasma protein solutions to reduce ICP.

Part 3. Clinical neuroanaesthesia This section comprises comprehensive chapters incorporating relevant sections on pathology, surgical techniques, and anaesthetic considerations with appropriate re-emphasis of the principles outlined in pre-

vious sections. The first chapter describes anaesthesia for supratentorial surgery. The section on stereotactic surgery is slightly misleading as coordinates can now be derived from computer assisted CT. The chapter on pituitary surgery and anaesthesia is excellent. The third chapter on posterior fossa surgery contains sections on the classification of posterior fossa lesions, clinical presentation and investigation, although the role of MRI is not reviewed. Anaesthetic considerations include positioning, the role of spontaneous vs IPPV and an excellent section on air embolism, although a discussion on continuation of anaesthesia after air embolism would be useful. There is a minor discrepancy between the correction of distance from head to transducer position in cm to mm Hg. Page 194 states 2 mm Hg = 2.5 cm while page 115 states 2.25 cm. The fourth chapter on anaesthesia for vascular lesions, perhaps over-emphasises the use of hypotension for aneurysm surgery in view of increasing trends towards cardiostable normovolaemic normotensive anaesthesia. A description of the authors' management of intraoperative ruptured aneurysm would be useful. The short review of the management of post-operative vasospasm is more comprehensively discussed on page 286, (Ch 15) in the intensive care section. The use of transcranial Doppler ultrasound in the diagnosis of vasospasm is perhaps worthy of mention. With an increasing tendency for surgeons to operate on selected patients within 48 hours of intracranial aneurysm rupture a discussion of anaesthesia for acute aneurysm surgery would seem appropriate. The fifth chapter critically reviews surgery and anaesthesia for cerebral arterial insufficiency with useful description of the authors' clinical practice. Chapter six describes anaesthesia for spinal operations with an excellent review of the problems of intubation in patients with cervical spine damage. There is no discussion of premedication for spinal surgery and the need for cross matching large volumes of blood for spinal tumour surgery requires emphasis. The final chapter on paediatric neuroanaesthesia is excellent with succinct description of important considerations related to age and a review of many practical problems during anaesthesia for investigations and surgery.

Part 4. Intensive Care The last section comprises two chapters, one on post-operative and intensive care, and the other on head injury management. Although the first gives a basic overview of post-operative complications with many useful points,

these might be better incorporated in the relevant clinical chapters. A clear distinction between intensive care methods for neurological and neurosurgical patients is lacking, particularly with regard to methods of ventilation and sedation, and there is no description of the intensive care management of cervical spine injury. The chapter also contains a basic review of electrophysiological monitoring. In contrast the section on head injury management is well organised with emphasis on important principles. The chapter would perhaps benefit from a list of indications for CT and considerations for the transport of head injured patients both between and within hospital. The section on brain stem death requires updating and expansion from the original 1976 recommendations.

I enjoyed reading this book and would recommend it as essential reading to both practising neuroanaesthetists and trainees.

NM DEARDEN

Brain Injury and Protection During Heart Surgery. Edited by Mark Hilberman. (Pp 173; £40.95). Dordrecht: Martinus Nijhoff 1987.

The aim of this slim volume is to present the results and develop the ideas of investigators working in the field of cerebral damage during cardio-pulmonary bypass, which is one of the most unacceptable complications arising during heart surgery. In the first of the nine chapters Aberg provides an excellent historical review of the improving results of cardio pulmonary bypass in the past two decades in Sweden. He suggests that most of the early damage occurred due to micro-embolisation and ends on a cautionary note that the improvement in results has not been sustained during the past 5 years, a fact which he believes is related to the almost inevitable problem of semi-microemboli.

The next three chapters consider the effects of pressure and blood flow on neurological outcome and compare the low pressure, low flow techniques in use at Stanford University with other systems to modify both arterial pressure and cerebral blood flow. The role of anaesthetic agents in altering brain blood flow and metabolism are discussed and interesting evidence is presented on the management of pCO₂ during cardio-pulmonary bypass and the preservation of autoregulation.

There follows consideration of the two major problems of micro-embolisation and macro-embolisation, those factors which