that in such a rapidly expanding field, it is soon out of date. Perhaps it would lend itself to being in the form of a computerised database, with regular updates for subscribers.

It is difficult to gauge from the book itself the reliability of a given test; this however, can be assessed from studying the references.

Any conditions which have not been diagnosed prenatally before are simply not referred to, leaving the reader with a slight feeling of uncertainty. Nevertheless, the logical layout of the text and the index help in this regard.

I would highly recommend the book as a useful addition to the libraries of clinical geneticists, obstetricians, paediatricians, and others with an interest in the field of prenatal diagnosis.

E M THOMPSON
Consultant clinical geneticist

Pediatric Neurosurgery. Surgery of the Developing Nervous System. 2nd ed. Edited by Robert McLaurin, Joan Venes, Luis Schut, Fred Epstein. (Pp 604; £93.75 hardback.) W B Saunders Company, 1989. ISBN 0-7216-2748-X.

The second edition of this volume, like its predecessor, has been produced under the auspices of the paediatric section of the American Association of Neurological Surgeons. The increased size of the book reflects a growing awareness of the pathophysiological changes that may occur in the developing nervous system and the application of newer diagnostic and therapeutic techniques to paediatric neurosurgery. Despite its 72 contributors, the book is cohesive and almost uniformly excellent in its approach, in short, a tour de force of editorship. There has been rapid expansion in the field of paediatric neurosurgery in the past decade, and the editors have set out to fulfil the need for updated information that such progress creates. There is little doubt that the book admirably fills this ecological niche.

The volume provides a detailed account of the current state of the art of paediatric neurosurgery. Each chapter has been revised, many significantly expanded—for instance, the tethered spinal cord, interventional radiology, and craniofacial surgery—and there are several additional chapters including those on ethics, neurooncology, and stereotactic procedures. Although there is a wealth of detail on the 'how?' for the practising neurosurgeon, one does not need to look elsewhere for the 'why?' as the text takes the reader through the

extensive and often contradictory literature of each particular topic with critical discussion. The chapters on the surgical management of childhood epilepsy were of particular interest and gave a clear perspective on this topical subject, the large section on central nervous system neoplasms was comprehensive, whereas the chapters on movement disorders and childhood stroke were a little more eclectic. If one were to quibble, then perhaps the chapters on head trauma would have benefited from some discussion of the coma scale and although intracranial pressure monitoring is mentioned, criteria for its use are not suggested.

The quality of the illustrations and reproduction of the neuroradiological imaging is what impresses the reader immediately. Among the 400 illustrations there was none that did not have a clear message. The text is attractively presented and adequately referenced, although citations beyond 1985 were infrequent in some chapters.

This book will be of value to all paediatricians, anaesthetists, radiologists, and those in intensive care looking after children with neurological disease or injury and should certainly be available in the library. For the paediatric neurosurgeon and paediatric neurologist it is likely to join the select collection of favoured books that all physicians like to keep within easy reach for frequent reference. It is expensive but has that indefinable quality of the book that is a pleasure to own.

G F COLE
Consultant paediatric neurologist

Perinatal Brain Lesions. Edited by Karen E Pape, Jonathan S Wigglesworth. (Pp 279; £35.00 hardback.) Blackwell Scientific Publications, 1989. ISBN 0-86542-028-9.

This work is one of a series of five books entitled *Contemporary Issues in Foetal and Neonatal Medicine*. This is a well written account of different aspects of perinatal brain damage outlining the current state of knowledge in diagnosis and management of brain lesions in newborn infants. The 14 authors cover specific areas in which they enhance our understanding of pathogenesis, evolution, and outcome of perinatal brain lesions.

The first chapter deals with the pathology of the most common perinatal hypoxic-ischaemic brain lesions in the perspective of the developmental state of the premature brain. In the second chapter the application of computed tomography in diagnosis of brain lesions in newborn infants is described and shortcom-

ings and limitations of this method of investigation are outlined. Chapter 3 describes the application of cranial sonography in perinatal investigation of cerebral lesions. Sonographic examination supplies a reliable diagnosis of intracranial haemorrhage but some limitations are encountered in the diagnosis of cerebral infarction. Therefore correlation between sonographic findings, other modalities of imaging, and neuropathological examination is essential. Different types of scanners available with their advantages and disadvantages are analysed. A brief chapter on birth asphyxia delineates at a cellular level the pathophysiology of perinatal hypoxic-ischaemic encephalopathy. The chapter on experimental models of intraventricular haemorrhage includes a description of animal models in which intraventricular haemorrhage occurs spontaneously and contrasts it with animal models in which intraventricular haemorrhage is produced artificially. The influences of the results derived from animal studies on management of human disease are discussed. The chapter on techniques for studying cerebral perfusion gives a detailed insight into the physiology and regulation of the cerebral blood flow and compares the non-invasive with invasive methods of investigation and monitoring of cerebral perfusion in human newborn infants. The next two chapters deal with prevention, management, and monitoring of the germinal layer intraventricular haemorrhage, and post-haemorrhagic hydrocephalus. In a chapter on the follow up of high risk infants the authors describe poor predictability of the outcome of perinatal brain injury. It is not known why some infants will develop normally despite having brain injury and some become handicapped. This question is addressed in the last chapter of the book where an attempt is made to explain this unpredictability on the basis of plasticity of the developing human and animal brain. The apparent discrepancy between the size of lesions and the extent of neurological impairment can be at least partially explained by environmental influences on cell growth and organisation in the developing central nervous system.

I found the book worthwhile and easy to read, partly due to concise format and clearly presented context. The chapters are adequately illustrated and well referenced. I would recommend this book to neonatologists, perinatal pathologists, and neuropathologists involved in examination of infants' brains as a specialised but not over complex summary of important findings in the field of perinatal brain lesions.

I E MOORE
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