Book reviews


This is a useful collection of review essays on various aspects of nervous system trauma. The title is, however, slightly misleading; only by stretching the definition of complication is it possible to claim that five of the seventeen chapters are relevant. It should have been called 'Topics in Neural Trauma'.

There is a good review of the pathophysiology of concussion with over 60 references, and the account of human neuropathology is much the best in the American literature; it both gives some quantitative data about the frequency and distribution of lesions and it gives reasonable prominence to white matter shearing lesions and its 160 references include important recent European work. A curious chapter on physiological monitoring manages to miss out intracranial pressure and to avoid reference to Europe altogether. CT scanning is inevitably represented by an extensive account of isodense subdural hematomas, and the use of the body scanner in detecting spinal fractures. Prediction of outcome after severe injury and of traumatic epilepsy are other topics. The chapter on psychological follow-up is a highly individual view which does not relate to current scientific neuropsychology. The brain damage section ends, appropriately, with a review of brain death. Experimental studies on the microvascular response to spinal trauma is followed by an account of microvascular regeneration. The medical complications of spinal cord trauma are briefly reviewed and a further chapter deals specifically with chest complications. There is an authoritative review of cervical spondylosis with beautiful illustration of operative procedures—but is this spinal trauma in the ordinary sense? Changing attitudes and developing knowledge of peripheral nerve trauma since the year 1900 are splendidly reviewed.

It is difficult in such a heterogeneous book, which does not have a coherent theme, to do much more than list its contents and make the obvious comment that some chapters are better than others. The reviews were originally given at a conference at the Barrow Neurological Institute, although this is not declared on the title page, preface or blurb—presumably to avoid the stigma of conference proceedings.


The authors state that this is a book for students—it is, but for students at all levels up to professorial rank. A total of 46 actual case histories are revealed piecemeal, punctuated by well-judged multiple choice questions throughout. These teasers yet to be diagnosed either relate to the particular child and his or her neurological disorder, or to related topics so that much ground is covered. The reader will soon find himself stretched, and this is undoubtedly a book to be worked through honestly, one case at a time. Practising "adult" neurologists may receive a jolt as they find themselves swiftly carried into the world of the neonate, erudite biochemistry, developmental medicine, the young handicapped, and the practical problems actually met by the paediatric neurologist. One reason for taking longer than usual to review this book is that I have tried to answer all the questions, with salutary results. Admittedly one sees occasional errors where one can be confident that ones own answer is more correct than the authors', but most of these result from the continuing expansion of knowledge—for example, newly discovered biochemical pathways.

Paediatric neurology is a large subject and the reader should know the range of problems and disorders covered in this particular case selection. More than half the children have progressive neurological or neuromuscular disorders (for example, adrenoleukodystrophy, cretinism, Menkes' disease, homocystinuria, ceroid lipofuscinosis, MLD, gangliosidoses, SSPE, cerebral tumours, the phakomatoses, the ataxias, Halloven-Stratz disease(1), dystonia musculorum, myasthenia, myotonic dystrophy, muscular dystrophy and the congenital myopathies, anterior horn cell disease, and peripheral neuropathies. Other reasonably classical neurological problems include neonatal meningitis and hypoglycaemia, kernicterus, perinatal asphyxia, congenital rubella, "non-accidental injury", Reye's syndrome, Sydenham's chorea, cerebral abscess, and the other complications of cyanotic congenital heart disease.

Seizure disorders discussed include neonatal seizures (but omitting benign familial epilepsy), febrile convulsions (including acquired hemiplegia), Lennox-Gastaut syndrome, absences and absence status, and temporal lobe epilepsy. The reader will also be quizzed on milestones of development, prematurity, the floppy baby, feeding difficulty, speech delay, the large head, the hyperkinetic syndrome, learning disorders, and the subtleties of minor combinations of neurological signs in children. Of the chronic handicapping disorders there is meningomyelocele and hydrocephalus, and something on mental handicap, but not a lot on cerebral palsy and multiple handicaps. In fairness, the reader is referred to more extensive discussions in the parent textbook. The Practice of Pediatric Neurology, edited by Swaiman and Wright—but perhaps the relative emphasis reflects paediatric neurological practice in South America's teaching centres.

I have not detailed the errors, which are fun finding out, and which I would gladly convey to the authors should they wish. But provided the reader interested in paediatric neurology uses the book intelligently, and looks further when he disagrees with the authors, then he will know himself and the subject better. For modern books, I suppose it is almost cheap, and more worthy of buying than a first quick flip through its pages might suggest.

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Haemorrhagic and ischaemic lesions in the brains of the newborn represented primarily by germinal layer haemorrhage/intraventricular haemorrhage and periventricular leucomalacia in the preterm infant, and ischaemic brain damage in the birth asphyxiated infant, account for a high proportion of all neonatal morbidity and permanent neurological handicaps.

The changing vascular anatomy and physiology of the developing brain are