Book Reviews


This book is made up of the 31 papers delivered at a symposium on brain hypoxia held in Carshalton, England in August 1970. The papers are divided into 7 sections; the first 3 by techniques—cerebral blood flow measurement, electron microscopy, and biochemistry; the remaining 4 by situations—posthypoxic brain swelling, atmospheric decompression (5 papers on this—an odd bias when there is no direct study of hypoxia associated with accidental haemorrhage, birth, respiratory failure, or shock), hypoglycaemia, and epilepsy. All but 7 of the papers use data derived from laboratory animals, but the questions studied define problems of immense importance to the clinician. Many are clearly multifactorial and the contribution of hypoxia to brain damage after epileptic seizures or symptomatic hypoglycaemia is shown to be more important than that of the electrical discharges or low blood sugars themselves. Conversely, the brain oedema after acute hypoxia or head injury may be more critical than the initial insult. The value of monitoring intracerebral pressure in neurosurgical patients is shown. The levels of arterial blood pressure or arterial oxygen tension, below which signs of tissue hypoxia appear, are defined.

In addition there are useful and critical discussions of the value of Redox pairs as a measure of tissue hypoxia; the limitations of various measures of intracerebral pressure; and provocative hypotheses concerning the natural history of seizures associated with fever. It is a pity that all of the hypoglycaemia studies involve a method using insulin. As this may initially protect cells from the effects of a low circulating blood sugar, the applicability of these studies to neonatal hypoglycaemia may be questioned. The book would be easier for the general reader if more background discussion was included in the introductions to the papers, and if the content was summarized.

These remarks should not detract from the overall worth of the book, which is stimulating and contains much of value for the general reader and is required reading for the specialist.

Birth and Brain Damage. By Cyril B. Courville. (Pp. xxi + 408; 124 figures + 5 tables. U.S. $20.00.) Published privately by Margaret Courville, 1000 Oxford Way, Pasadena, California 91103, U.S.A. 1971. This is a very disappointing book. Dr. Courville’s thesis is that asphyxia at birth is an important cause of brain damage. The book deals almost exclusively with some findings in the brains of children or adults with cerebral palsy and other neurological conditions. The birth history of the patients is either not known or confined to ‘thought to have had birth injury’. A few brains from newborn babies are illustrated but there is no evidence that the author ever examined any of his neonatal material histologically; without such an examination a pathological diagnosis of hypoxia cannot be made. Some of the author’s notions seem bizarre: thus he proposes that Schilder’s disease (diffuse sclerosis) is analogous to white matter degeneration after carbon monoxide poisoning in adults and that it is due to mild or even subclinical perinatal anoxia producing its effects years later. The legend to Fig. 63 says simply ‘note compensatory hypertrophy of convolutions of parietal lobes’. There is no discussion of this startling idea in the text.

The illustrations are poorly reproduced and often do not show what the legends describe. Dr. Courville died in 1968. The book contains a list of his published papers many of which are valuable. This book, however, is not good.


This monograph deals with those congenital malformations of the back which are hidden or occult and are quite unlike the more familiar myelomeningocele. These have attracted very little attention until the enthusiastic authors began to publish their observations over twelve years ago. Dermal sinus, dermoid cyst, intraspinal lipoma, and diastematomyelia (‘split cord’) have long been known. Other malformations which may also result from disturbance of the lower midline structures in the young embryo have hitherto been largely overlooked. A detailed description is provided of the embryology, pathology, clinical presentation, radiology, and principles of surgical treatment. Two-thirds of the book are then devoted to an analysis of 100 cases. This provides the reader with an excellent idea of the range of abnormalities and gives just sense of proportion which is needed when determining the indications for investigation and treatment. There are many illustrations, some in colour, but the authors have been ill served by poor reproduction of many of these.

The monograph is concerned rigidly with the authors’ own experience and makes little reference to the existence of other workers who may advocate other methods of investigation (for example by air myelography) and who have different indications for treatment. Though the uninitiated reader is therefore in some danger of being misled, this book is to be greatly welcomed as an introduction to an expanding and important field of surgical endeavour.