Book reviews

Recent Advances in Paediatrics No. 5. Edited by DAVID HULL. (Pp. 367; illustrated + tables. £10.00.) Edinburgh: Churchill Livingstone. 1976.

The successive volumes in the 'Recent Advances in Paediatrics' series have provided reviews of current progress which have maintained a consistently high standard. In general, the aim seems to have been to give an overall picture of the state of a particular subject rather than to report very recent research whose significance may not yet have been adequately assessed. The 13 chapters in the current volume mainly follow this pattern, and like those in the previous volumes many of them are likely to go on being useful to practising paediatricians for many years. This volume is somewhat shorter than the last (358 pages of text compared with 557) but few paediatricians are likely to complain about the editor's success in keeping the chapters concise and to the point.

About half the book is devoted to perinatal matters. There are no chapters specifically concerned with developmental or chronic neurological disorders, though naturally the perinatal chapters frequently refer to these possible later effects of perinatal disorders. The editor may very reasonably have felt that the past 5 years had seen no fundamental advances in the understanding or management of chronic neurological problems in childhood and that it was, therefore, better to concentrate on the perinatal period where some of them may be prevented. Certainly, the book shows evidence of very careful editing in the choice of chapters, the reasons being very well put in the editor's preface, and the emphasis on preventive paediatrics is very welcome. The only criticism of the editing is that perhaps Professor Hull might have been a little stricter with several authors who produced tables and figures which are not adequately explained either in the legends or in the text.

Of the individual chapters, 6 seem particularly likely to be referred to again and again by practising paediatricians and research workers. These are by Professor D. M. Symonds on the Evaluation of Fetal Wellbeing, Dr. Pamela Davies on Infants of Very Low Birthweight (treatment and prognosis), Pro-

fessor J. A. Dudgeon on Immunization, 2 chapters by Dr. Cyril Chantler on Renal Disease, and one by Professors June Lloyd and O. H. Wolff on Obesity. Each of these is excellent, but the one by Dr. Pamela Davies deserves especially high praise. She again shows her ability to review an immense literature and to bring out the important conclusions in a way that is highly readable and crystal clear. She makes the important point that though the outlook for low birthweight babies is much better now than in the 1950s, a broad rather than a narrow definition of their handicaps indicates that there is no room for complacency.

The remaining chapters are an interesting mixed bag. Professor June Lloyd, writing on hyperlipoproteinaemia and atherosclerosis, indicates an area where paediatricians should perhaps be taking their long-term preventive role much more seriously. Professor J. L. Emery again argues persuasively against a syndrome of 'cot death' and shows that a large proportion of deaths so labelled are due to recognizable and treatable causes. Drs. N. H. Klaus and J. H. Kennell discuss parent-to-infant attachment and provide, as well as a good deal of theory, some highly practical suggestions about how to help the parents of immature, sick, and congenitally malformed babies. Professor J. R. T. Colley's long chapter on the epidemiology of respiratory disease left me once again with the feeling that he has some important message for paediatricians concerning the relationship between childhood and adult respiratory disease but that I could not quite grasp what it was. The least satisfactory chapters are those on 'Infants Damaged at Birth' which seemed to me to give an impression of a depth and detail in our understanding of neonatal cerebral pathology, its causes and consequences, which is not justified by current knowledge. Actual pathological findings in babies, experimental findings in animals, and plain speculation about pathology where this cannot directly be examined, are mixed together too indiscriminately.

Professor Hull has produced another excellent volume in this series which every paediatric library will need and many paediatricians will find well worth owning.

R. J. ROBINSON

Bilirubin Metabolism in the Newborn (II). Birth Defects Original Article Series. Vol. XII, No. 2. Edited by DANIEL BERGSMAN and S. H. BLONDHEIM. (Pp. 348; illustrated + tables. US \$40.50. Amsterdam: Excerpta Medica. 1976.

The first symposium on bilirubin metabolism was held in Chicago in 1969 and the present volume is concerned with further developments up to the meeting in Jerusalem in 1974. Most of the leading workers in this field attended and the papers were grouped around the main headings of 'Phototherapy', 'Bilirubin binding', and 'Pharmacological effects of hyperbilirubinaemia on the brain'.

There is still no method for measuring the dose-response relationship in phototherapy, but despite this no definite toxic effects have so far been described. Phototherapy, however, reduces blood riboflavin levels according to Dr. Sisson and this may reduce G6PD activity. Caution was therefore suggested in using phototherapy on G6PD-deficient patients. According to Dr. Ferreira, prophylactic use of phototherapy in preterm infants was no more effective if given for 144 hours continuously than if given on alternate 12-hour periods for the same total time. This has implications for economical use of equipment in countries such as ours with limited medical resources and equipment. Other papers in this section concern photodegradation products, drugs and phototherapy, bilirubin excretion, light and liver function, insensible water loss, and peripheral blood flow.

Bilirubin binding is still measured in various ways, ranging from bilirubin/albumin ratios, HBABA dye technique, and the new Sephadex gel filtration method. The assessment of all these methods depends on an accurate diagnosis of bilirubin encephalopathy. No firm conclusions were reached as the clinical picture can be simulated by other forms of perinatal brain insult. Even histology does not distinguish between bilirubin staining of already dead tissue in preterm infants dying from hypoxia, acidosis, or infection and the true bilirubin neurotoxicity, though maybe the distribution of the lesions in the brain may be different. Gentamicin was exonerated as a possible

competitor for albumin binding and hence this very useful drug has escaped a threat to its use. It was agreed that haemolytic jaundice is more dangerous than nonhaemolytic, but no reason was given. In a study concerning bilirubin binding and free fatty acids (FFA), Drs. Gartner and Kwang Sun Lee, showed that FFA concentrations in the plasma reduced bilirubin levels in the plasma possibly by competitive inhibition of bilirubin binding to albumin. As plasma FFA is increased in most stress conditions and particularly starvation, it may be an important shuttle between albumin and the cells which could have implications regarding the distribution of bilirubin between neural and non-neural tissue.

There is a great deal of solid meat in this volume, it is easy to read and ends with three important summarizing papers by Drs. Thomas Sisson, Leo Stern, and Alex Russell. Anyone concerned in this field would be well advised to have a copy.

B. S. B. WOOD

Practical Pediatric Electrocardiography.

Edited by L. C. HARRIS. (Pp. v+125; illustrated+tables. US \$9.00.) Galveston: University of Texas Medical Branch. 1976.

This book is produced with students, junior medical staff, nurses, and paramedical personnel specifically in mind. It does not attempt to deal with rarities, and starts at the very beginning. Nevertheless, having completed the book, the reader should be able to cope with 95% of all paediatric electrocardiograms, and be able to extract 90% of the information contained in them. Most of the remaining 10% of information could have been obtained had there been instruction on the drawing of derived vector loops from the spatial electrocardiogram. This could have been achieved with only slight expansion of the section on mean qrs loop.

Each section consists of an appropriately dogmatic statement of principles, followed by test multiple choice questions. There is a final revision examination. Laudable attempts are made to relate the ECG to actual clinical problems, but the general level of expertise consequently drops. For example, it is stated that a 2-month-old infant with heart failure due to a VSD requires banding of the pulmonary artery or correction of the defect without delay if not promptly improved by digitalis or diuretics. This advice takes account of neither the natural history of VSD nor of the overall results of banding

and debanding. Total correction, yes, but not unless there is failure of an intensive trial of medical treatment, and the VSD is not of the 'Swiss-cheese' type.

Many readers will not understand why the ECG on page 57 is interpreted as showing biventricular hypertrophy, since it is, by the authors stated criteria, normal. Apart from this the level of consistency is excellent. Many general paediatricians would find cardiology much easier if they could read ECGs confidently. This book will be of great value to both students and doctors including (dare I say it?) consultant paediatricians.

FERGUS J. MACARTNEY

The Child with Congenital Heart Disease after Surgery. Edited by B. S. LANGFORD KIDD and RICHARD D. ROWE. (Pp. xii+466; illustrated+tables. £19.20.) Bristol: Wright. 1976.

This book contains the proceedings of an international symposium held in Toronto in June 1975. It is an elegant volume, conventionally printed with commendable speed, bearing few marks of hasty production. As an up-to-date picture of advances in the surgery of congenital heart disease, it is excellent and comprehensive, with the chapters on primitive ventricle, transposition, infant tetralogy, tricuspid atresia, and pulmonary atresia with ventricular septal defect being outstanding. However, all the information given in these areas is readily available elsewhere.

The reader who infers from the title that the participants devoted themselves to the long-term fate of surgical survivors may be disappointed. Though the 'home team' strove manfully to keep to their presumed brief, not all were so single-minded. In particular there was reluctance to mention either the early or late results of surgery for pulmonary atresia with intact ventricular septum, so that the benefits of surgical intervention here remain uncertain. However, there are valuable chapters on persistent hypertension following coarctation resection, conduction disturbances after repair of tetralogy, pre- and postoperative right and left ventricular volumes in various conditions, and growth, development, intelligence, and rehabilitation in survivors of cardiac surgery. Perhaps the most important paper on long-term results was that from the Mayo Clinic on the fate of raised pulmonary vascular resistance after surgery in patients with ventricular septal defect, showing that this fell to normal or

almost normal in all patients whose VSD was closed in the first 2 years of life, while remaining on average unchanged in patients operated on later. Because such detailed information is not published elsewhere, this chapter is bound to become a source reference, as is one by Van Praagh *et al.* on pulmonary atresia. The latter would on its own justify purchase of the entire book, even if it has, of all chapters, the least to do with 'The Child after Surgery'.

FERGUS J. MACARTNEY

Cystic Fibrosis. Manual of Diagnosis and Management. By CHARLOTTE M. ANDERSON and MARY C. GOODCHILD. (Pp. 174; illustrated+tables. £4.75.) Oxford: Blackwell Scientific Publications. 1976.

This small volume presents a comprehensive review of cystic fibrosis. The initial brief general description is followed by a chapter on the pathogenesis. The final chapter summarizes the lines of investigation which have been followed over the past 30 years. Intermediate chapters give clear and concise descriptions of the clinical presentation at various ages. The more common practices in the management of the respiratory and nutritional problems are presented in detail, the authors giving reasons for the choice of therapy. Tables of commonly used drugs and pancreatic preparations are included, and the positions assumed by the patient during chest physiotherapy are illustrated by line drawings. Practical details of the more controversial treatments such as antibiotic aerosols, mist tents, and artificial diets are given. The other aspects of the disease—psychological, social, genetic, and educational, are stressed. Finally, there is a discussion on survival rates and the place of newborn screening. Each chapter includes a list of illustrative articles, detailed reviews, or chapters to be found in textbooks. The book is well produced and the standard of the reproductions of chest radiographs and histological sections is excellent.

This volume can be recommended as a reference book on cystic fibrosis. The chapters on medical management are perhaps too detailed for a book of this type written not only for doctors but to give information to others in many disciplines who have an interest in this condition. Few procedures or treatments reported in the literature are not mentioned, even tracheostomy and the use of positive pressure machines are given