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medical staff, specifically nurses, and students, and

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.

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


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 into this 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 of 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 the chapters, the least to do with 'The Child after Surgery'.

FERGUS J. MACARTNEY


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, and 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.
space, though their use in this condition can seldom, if ever, arise. Doctors and others without a special interest in this subject might find it difficult to decide the indications for certain treatments for individual patients.

As the basic defect of this condition is unknown there is still room for manoeuvre in treatment. This volume can act as a guide, but treatments must vary according to the severity of the patient's symptoms.

MARGARET B. MEARS


This book has a somewhat misleading name for the clinician as its subject matter is principally concerned with the pathophysiology of acute diarrhoea in children. Those looking for a clear guide to clinical diagnosis and management will not find it here, but those wishing to understand the mechanisms of acute diarrhoea in childhood, its pathogenesis and as a consequence, a rational basis for management, will find this book a treasure trove of information. The contributors to this symposium are all leaders in their fields. One of the notable features of this book is the significant contribution made to it by workers in the veterinary field.

The role of bacteria in the aetiology of acute diarrhoea is fully discussed with a detailed account of the modern concepts of invasiveness and enterotoxin production and their importance in pathogenesis. A role for the pseudomembrane, as a result of the release of endotoxin by choleragen and also by other toxins is described. Field gives an excellent account of the regulation of active transport in the small intestine, Bellen describes the latest work concerning the resistance provided by breast feeding to enteritis caused by E. coli in infancy, and there is an interesting general discussion by many of the contributors to the symposium concerning the advantages of breast milk.

The exciting new work on the role of viruses in the aetiology of acute diarrhoea is described by some of the major workers in the field including Bishop and her colleagues, Flewett, and Kapikian and his colleagues, as well as animal experimental work by Hamilton and his colleagues and veterinary observations by Woode. The vastly important practical problems in the developing world are described in a prospective study in Guatemala by Mata et al. Finally, Rohde and Northrup make a plea to take science where the diarrhoea is.

This book is essentially a work of reference and will be an invaluable source for anyone who is concerned with research in this rapidly expanding area of knowledge.

J. A. WALKER-SMITH


This excellent new textbook is, as far as I am aware, the only book on paediatric nutrition available in English. The 23 contributors discuss maternal and fetal growth, nutrition in the normal child, nutritional assessment, protein-energy malnutrition, obesity, deficiency states, fluid and electrolytes, carbohydrate, lipid and amino acid disorders, parenteral nutrition, and nutrition in various systemic disorders such as renal disease, coeliac disease, sugar malabsorption, protein-losing enteropathy, liver, cardiac, and renal disease, and cows' milk allergy. The social and community aspects of nutrition, the contribution of manufactured foods, and the prevention of malnutrition are also discussed. There is an interesting historical introduction. The editors have succeeded in their intention to emphasize practical details of clinical management and the principles involved. While detailed diets have, quite correctly, not been given, there is an astonishing amount of useful information available in the book.

It is up to date and fully referenced, well written, and well edited, apart from the chapter on maternal nutrition and fetal growth which could be improved by more discussion of the relevance of the great deal of information given. More emphasis might have been given to food allergy and anorexia nervosa which are only briefly considered. The discussion of dietary modification in kidney disease is inadequate, and the role of the kidney in infant nutrition and homeostasis is not mentioned. The physiology of appetite and the psychological and ethnic implications of feeding are omitted even though one is constantly aware of the difference between prescribing a diet and what is actually eaten. The effect of diet modification on the family is also important. The authors have preferred the mega to the kilo joule (kJ) throughout, presumably for very good reasons, though I suspect that most clinicians find it easier to remember that 1 kilocalorie is 4.2 kJ.

Finally, the book is well printed, attractively laid out, has a hard back, and is expensive. Perhaps a soft cover could be produced to reduce the price and make it easier for the individual to buy. Certainly it should be available in all paediatric libraries and perhaps on the ward as well. Probably all paediatricians and dieticians will want to read it and many will want to own a copy for they will find it exceptionally useful in their clinical practice.

C. CHANTLER


New books on perinatal or neonatal medicine are raining down into the laps of bewildered paediatricians at the moment like over-ripe plums. They seem to say the same things in slightly different ways and it is beginning to be difficult to tell them apart. This one has 12 contributors, but the two editors, both from Downstate Medical Center, State University of New York, have written 17 of the 25 chapters themselves, and contributed largely to two more, so that there is considerable uniformity of style. The scope is ambitious. They aim to cover all aspects of fetal and neonatal medicine, and to include basic science as well as clinical information. Thus a background of embryology, physiology, biochemistry, biochemistry, and biochemistry, as well as clinical signs, differential diagnosis, details of diagnostic tests, and treatment. A transatlantic note is provided by an entire chapter on medicolegal aspects written by a lecturer in legal medicine; and two surgeons cover most of the commonly encountered surgical problems in another chapter. Short notes on new advances which came too late for the text are given as addenda in an appendix, and reveal the overweening time it takes to get a book published these days. The text is liberally illustrated, and diagrams are generally clear and reproductions of photographs and x-rays of good quality, though one picture entitled 'skeletal anomalies following use of LSD during pregnancy' and showing an infant with mis-shapen legs and an obvious meningomyelocele, seems strangely chosen. Each chapter is generously referenced, citing overwhelmingly American work. One is
in patients with ileal resections (Weber et al., 1976). The EHC is broken due to defective ileal reabsorption of bile salts. It has been suggested that unhydrolysed dietary triglycerides (Tg) impair the reabsorption of bile salts in the terminal ileum, but no definitive studies have examined this hypothesis.

This investigation studied the effects of Tg on taurocholate (TC) absorption (as judged by both luminal and mucosal disappearance of TC) in the terminal ileum of the rat utilizing a well validated in vivo closed-loop technique. The test solutions contained triolein 10 or 30 mmol/l, TC 10 mmol/l, oleic acid 1 mmol/l, monoglyceride 0·5 mmol/l, were made isotonic (280 mOsm/l) with sodium chloride, and were buffered to pH 7·1 with a sodium bicarbonate buffer; the control solution was identical except for the absence of triolein. Several paired experiments were performed using different absorptive periods up to 1 hour. Absorption of TC was linear up to 20 minutes, becoming curvilinear thereafter. Triolein had no effect on luminal or mucosal disappearance of TC at any of the absorptive periods tested. These results provide evidence that unhydrolysed Tg does not impair ileal reabsorption of bile salts. Further work is in progress to define the pathophysiology of bile salt malabsorption in CF.

Reference


The disaccharide sucrose is composed of the two monosaccharides glucose and fructose, and the increasing dietary consumption of sucrose in the developed parts of the world has resulted in fructose becoming a major dietary constituent. Despite this there have been no systematic studies on the effects of glucose on fructose absorption. This study was prompted by our clinical impression that some infants with protracted diarrhoea absorb mixtures of glucose and fructose better than if either monosaccharide is presented alone.

The effects of glucose on fructose absorption have been investigated in the rat jejunum in vivo, using a steady-state perfusion technique. In addition, effects on fluid and electrolyte transport, and transmural potential difference (TPD), were simultaneously studied. Perfusion of mixtures of fructose (20 mmol/l) and glucose (2 mmol/l) resulted in a significant (P < 0·001) stimulation of net fructose transport, compared with values obtained when fructose was perfused alone. Higher concentrations of glucose (56 mmol/l) also stimulated fructose absorption but this was not statistically significant. The glucose-containing solutions induced large changes in TPD; when perfused alone fructose induced a small but significant increase in TPD. Perfusion of mixtures of fructose (20 mmol/l) and 3-o-methylglucose (2 mmol/l and 56 mmol/l) abolished the stimulation of net fructose transport. 3-o-methylglucose induced changes in TPD identical with glucose in equimolar concentrations. These results suggest that the stimulation of net fructose transport by glucose (2 mmol/l) may be related to cellular metabolism.

These studies indicate that glucose stimulates fructose absorption and may have important implications with regard to the dietary content of sucrose in health, and to the dietary management of diarrhoeal states in infancy.

Correction. In the April issue a review appeared on p. 340 of The Child with Congenital Heart Disease after Surgery. The publisher is Futura, Mt. Kisco, New York. The UK distributor is Wright, Bristol.