Book Reviews


A bold and successful attempt at a multidisciplinary approach to a difficult subject is reported. Each of the 15 papers written and discussed by 25 experts provides the reader with a vast amount of factual data, sometimes rather indigestible, but derived from a wealth of experimental and, to a lesser extent, clinical experience. Of necessity it is a collection of different styles, not all of which are easily read, but for those interested in particular topics, it provides an up-to-date review.

The text covers numerous aspects of fetal physiology from the moment of implantation to delivery, though perhaps greater practical impact would have emerged had the discussion been taken through to include the newborn. This, however, was not the purpose of the Symposium. The emphasis is undoubtedly endocrine, though there are several good contributions on the subjects of cardiopulmonary development and function, and two on fetal metabolism and weight gain. The text also includes papers on the maternal unresponsiveness to paternally derived fetal antigens, the fetal reaction to drugs taken by the mother, and on neuromuscular development over the perinatal period. The role of hormones in programming the sexual differentiation of the central nervous system and the ultimate behaviour patterns of the offspring makes disturbing reading, knowing the freedom with which hormones are administered during human pregnancy today. The section on ‘Genetic Assimilation of Environmental Variability in the Organisation of Behavioural Capacities of the Developing Nervous System’ begins, ‘Science tends towards simplistic reductionism . . . ’; and, while undoubtedly erudite, the data are, except perhaps for the very expert, hard to assimilate and the hypothesis at times rather difficult to follow. The readership is thus likely to be somewhat restricted. Perhaps the most exciting (and ultimately rewarding) is the paper on the initiation of parturition.

The purpose of the Symposium was, as the Chairman’s opening remarks put it, to ‘explore the gaps’ and ‘spot the connexions’ between the numerous disciplines which contribute to our knowledge of fetal growth and development. While the bridges built by this exercise seem small in comparison to the effort involved, this should not deter others from following in the same manner, nor from gaining benefit from study of the material presented. As might well be expected in a report of this kind, there are as many new gaps identified as there are old ones closed. In his closing remarks the Chairman admits that there had been little mention of the concept of fetal immunological competence, mineral metabolism, brain and enzyme development, but the fact that this report runs to over 300 pages and contains 73 illustrations indicates the depth of detail recorded.

It is from reports of interdisciplinary exchanges such as this that birth is given to ideas of substance for future study. This is an up-to-date review for the specialist, it is required reading for the researcher, and at the same time acts as an object lesson in the folly of becoming too isolated in one narrow field of study. Those who seek ideas for further discussion and research will find them in abundance in this book.

**Immunization Against Infectious Diseases.** British Medical Bulletin. Scientific Editor, D. G. EVANS. Vol. 25, No. 2. (40s.) May 1969.

The British Medical Bulletin is the closest contact of most of us with the British Medical Council, the body whose job is to make influential foreigners think favourably of us by propaganda and by public and personal relations. To be effective, consistency, reliability, and respect for their audience are essential, and these are well reflected in the Bulletin of which the May number deals with immunization (as opposed to immunology).

In no field of medicine are the same virtues more necessary, and the Bulletin reflects the efforts that have been made and some of the difficulty in achieving them. The series of reviews by British (or South African) authors is introduced by the Editor, Professor D. G. Evans, who, after a bow to Jenner and a plate of his pock-marked hut, rapidly covers the history of immunization and warns of its known and future hazards, such as the unwitting introduction of fowl leucosis virus with yellow fever vaccine.

Dr. Cockburn of W.H.O. discusses the transient effects of mass programmes in countries where follow-up is poor, the need for mixed vaccines, and the difficulties not only of the control of vaccine quality but even of recognizing epidemics in remote and tropical lands. As sanitation delays exposure to pockymelitis so the severity of epidemics increases and vaccination is not yet keeping pace.

Professor Harry Smith of Birmingham describes the chemical basis of vaccine production, and there follow articles on all the individual vaccines, all packed with facts and references, and many displaying the extent of our ignorance as well as the remarkable advances of recent years. Dr. Pollock of the Public Health Laboratory Service discusses the place of γ-globulin, or human normal immuno-globulin as we must now call it, and explains the volte-face of his service on its use in rubella.
in pregnancy. The time has surely come for screening girls at school so that those susceptible to rubella may at least be exposed before pregnancy or isolated during it, rather than condemned to abortion when the damage has been done.

As the ability to produce vaccines grows, so does the problem of whether or when to use them. By reducing newborn immunity, decisions taken now may alter disease patterns generations hence, and a decision to immunize may not be reversible. Certainly as insecticides, urban development, and sanitation increase our isolation from nature, the risk of sporadic infection grows, and the maintenance of our immune state is rapidly becoming as important as, but more difficult than, the supply of clean water. Hardly any vaccine has yet been introduced without a tragedy, but the Bulletin at least shows that the lessons are being learned and that we may have confidence in the decision makers as well as sympathy for them.


Most recent review articles on ‘the floppy infant’ have been based on a neuro-anatomical classification of causes. As Dr. Dubowitz points out, they have not always given due weight to the commoner conditions, and have included diseases where hypotonia is an incidental finding, which would never in practice enter into the differential diagnosis. He uses a different classification, first differentiating conditions where the main symptom is paralysis from those where hypotonia is not accompanied by significant weakness. In the former group the commonest cause is infantile spinal muscular atrophy, in the latter group central nervous system disease accompanied by mental retardation. Each important condition is illustrated by photographs and case reports, based on the author’s considerable experience of these conditions as a clinician and a histopathologist. He makes the interesting comment that most of his cases of ‘benign congenital hypotonia’ have subsequently turned out to be cases of Prader-Willi syndrome.

The reviewer did not feel that this book illuminated the whole problem of the floppy infant in a new way. Nevertheless, it will be a most valuable source of reference for the paediatrician or neurologist confronted with this clinical problem.


Parenteral fluids have for long been essential to the success of many operative ventures. As the scope of modern surgery increases, and as many other desperately ill patients are kept alive for long periods, emphasis has to shift from the mere supply of electrolyte and carbohydrate to the provision of fat and protein, in order that serious metabolic disturbances do not arise. Recognition of this has been slow and many have been content to allow negative nitrogen balances, for instance, to go unchecked. There is an increasing body of opinion, the authors of this book included, which believes this to be wrong. The arguments are well marshalled, and chapters on biochemical and pharmacological principles involved and on clinical physiopathology help to put the theoretical background in order. Practical guidance is given on parenteral nutrition in medicine, and Professor Harold Ellis deals with surgical aspects. Mr. G. J. Hadfield contributes a chapter on such feeding in paediatrics. The intravenous fat and amino-acid preparations which are now available may be necessary in a variety of conditions in childhood, ranging from massive resection of the intestine in the newborn to severe traffic accidents in the older child, and practical examples are described. One could wish for a little more guidance on the relative proportions of fat and protein necessary for children, though the final chapter deals with the design of an intravenous diet for adults. This book must be a pioneer in its field and it will provide extremely useful guide-lines to those caring for the sort of patient described.

The authors cite a previous historical review in their opening chapter which credits Sir Christopher Wren with the first prediction, in 1658, that liquids might be introduced directly into the blood stream. While the small but ever-increasing number of children who owe their lives to parental nutrition given for weeks, sometimes even months, will probably be unaware of this fact, one is tempted to hope that at least some of them will gaze at the buildings of this renowned architect and scientist with awe and delight in their later years.


When a book of this type passes through three editions in 14 years it is a fair indication that it has been appreciated, and the author has wisely made little change in the format or size of the work, for it is less than 100 pages longer than it was originally, and many of the sections are little changed. This is not to say, however, that it has not been brought up to date, for a glance through the text and the list of 300 or more original references will show that it has.

The author first deals with the basic relationships of water, sodium, and potassium in the body. He discusses the effect of age on the composition of the body and of the external temperature on the requirements of the body for sodium, and how all this is integrated with the maintenance of chemical neutrality. There is plenty of sound and simple physiology in these sections as one would expect from a practical man with great experience of neonatal surgery.

The author goes on to the way these parameters of

**Book Reviews**

287