Biochemical Approaches to Mental Handicap in Children.


This is the report of a third symposium held in the North of England on 'Neuroendocrine disorders of childhood', containing the communications given at that meeting. Although the general standard was not as high as that achieved in Sheffield the previous year, several interesting papers were offered. A full description of the biochemical survey of mental handicap which is being carried out in Northern Ireland was given by Dr. Carson, and Dr. Brian Bower described the study undertaken in Birmingham of tryptophan metabolism in infantile spasms. The treatment of maple syrup urine disease in two patients was described by Mr. Ireland of Liverpool, using a relatively inexpensive diet.

Then followed three papers reviewing in detail the published material on heterozygotes in neuroendocrine disorders, the biochemical aspects of Down's disease, and the problems of infantile autism. Finally there was an interesting review of special diets in the treatment of biochemical disorders, followed by some personal observations by Dr. Margaret Wilson on the effect of varying vitamin intakes on growth in young rats, which emphasized the need for full well-balanced vitamin intake when special milks are prescribed for infants and growing children.

This book does not contain any new information concerning mental handicap in children, but it will be of assistance to students and paediatric residents who are anxious to acquaint themselves with recent work in this aspect of mental handicap.


This book contains the proceedings of a symposium held at the University of Groningen in February 1964. The four subjects considered are nutrition, water and electrolyte metabolism, respiratory problems, and temperature control.

Inevitably one must compare this volume with the previously published Ciba Foundation Symposium on Somatic Stability of the Newborn, and indeed there is considerable overlap particularly in the realms of renal function and temperature regulation. However, most of the material presented is from data on human infants and there is a fair balance between pure physiology and its application to clinical situations. The discussions following each section are helpful, and as a source of information the references should prove useful.

The nutrition section covers body composition before and after birth, nutritional problems in low birth weight infants, the effects of prolonged starvation in surgical patients, and neonatal hypoglycaemia. R. A. McCance reviews water and electrolyte metabolism, and there is an excellent account of some aspects of adrenocortical function in normal infants as well as those with congenital adrenal hyperplasia in the early months of life. A rational approach to the practical management of neonatal dehydration is also presented. In the respiratory section the changes taking place in the lung at birth are summarized and some of the factors influencing pulmonary blood flow are described from an experimental point of view. The ever baffling problem of respiratory distress syndrome is presented from the standpoints of diagnosis, disordered respiratory function, and treatment with bicarbonate and THAM. The section on temperature control, which is perhaps the best, contains much information on chemical thermogenesis and the possible role of brown fat in its mediation; the importance of providing a suitable thermal environment for the premature is stressed once more.


The editor of this attractive volume has made an interesting and well-balanced selection of some of the paediatric publications that have appeared during the year ending September 1964. The coverage is wide and includes most subjects of general paediatric interest, though with some bias towards clinical problems rather than basic research. The extracts are, in the main, well written but in a few instances condensation of the original has led to some loss of clarity; something which is probably inevitable in this type of publication.

Although the abstractors remain anonymous many of the more important and controversial topics have attracted comments from the editor or from named contributors. Some of these critical evaluations are invaluable for they impart a sense of caution and balance which is occasionally lacking in the original articles. This practice, which over the years has given the Year Book Series a character of its own, should be commended, since nowadays many medical journals are without correspondence columns and their contents are immune from criticism. An interesting and helpful improvement, perhaps, would be to allow the original authors to add their own remarks.

This book has a high standard of production with good clear print, acceptable illustrations, and diagrams and a useful author and subject index. It can be recommended for all those who wish to gain a broad view of recent paediatric literature, especially the busy doctor whose reading time is severely restricted.


When the National Tay-Sachs Association in New York encouraged the establishment of a small clinical unit to study this disease in detail they created an opportunity for an enthusiastic team of workers to make...