Book reviews


This book reports the proceedings of the second international conference on coeliac disease held in Holland in March 1974. It highlights the enormous amount of work going on in this field and provides an up-to-date account of research in coeliac disease from many countries. The book is well produced with many illustrations. After most papers there is a useful and very readable summary of the discussions which ensued.

A definition of coeliac disease in both childhood and adult life is provided at the onset. Visakorpi defined coeliac disease in childhood as being based upon three criteria, namely (1) structurally abnormal jejunal mucosa on a gluten-containing diet; (2) clear improvement of villous structure on a gluten-free diet; (3) deterioration of mucosa during challenge. Though he states that it is not always necessary to fulfil these criteria in clinical practice, this kind of definition based upon morphological criteria is the only satisfactory basis for a definition at present as there is no single diagnostic test for coeliac disease.

Booth defined coeliac disease in adult life in similar terms and emphasized that this is a lifelong disorder, but he pointed out that though a complete return to normality by the small intestinal mucosa is usual in children with coeliac disease on a gluten-free diet, in adults the mucosa may only show partial response to such dietary elimination, the enterocyte becoming normal but villous structure remaining abnormal. He also described a group of patients who do not fulfil these criteria, who, despite a flat jejunal mucosa, do not respond to a gluten-free diet. He believes that these adult patients have a variant of coeliac disease which has become irreversible.

A great deal of this book is devoted to work concerning the fundamental aetiology of coeliac disease which is still uncertain. Further studies are reported of the chemistry of gliadin. There is now good evidence that α-gliadin has a greater number of toxic determinants than do other gliadins, but the precise indentification of the toxic fraction of gliadin awaits elucidation.

One of the most interesting and exciting developments in this field has been the development by Trier and his colleagues of a simple and effective technique for small intestinal organ culture of biopsy specimens. The use of this technique with biopsies from children is reported by Jos and his colleagues, and its use in adults by Falchuk and his group who have in this way investigated the pathogenesis of coeliac disease. They have reported evidence that gluten-peptides are not directly toxic to the epithelial cells in coeliac disease, but there must first be activation of an endogenous effector system which they believe to be the local immunological system in the small intestinal mucosa.

A detailed account of the histocompatibility HL-A system is given in this book which is not readily available elsewhere. A major finding in this field has been the observation that HL-A 8 antigen is found with increased frequency in both adults and children with coeliac disease. It appears that possession of the HL-A 8 antigen predisposes to the development of coeliac disease. McNeish and his colleagues point out that the timing of the first gluten feeding and the subsequent amount of dietary wheat may be important threshold factors in precipitating clinical disease. They also report the interesting observation that nearly all countries in which coeliac disease has been reported have a yearly wheat intake per head greater than 100 kg and also a high gene frequency for HL-A 8.

This book also reports the various animal models that have been used to produce experimental villous atrophy. Ferguson, using rats infested with Nippostrongylus brasiliensis, reports evidence that development of mucosal damage in these rats is thymus dependent.

Recent work concerning genetics and epidemiology is also reported from the West of Ireland and Birmingham, and there is a section on the evolution of our knowledge concerning the clinical aspects of coeliac disease.

This book shows that a great deal of original work is going on in many centres concerning coeliac disease in adults and children, but what remains clear after reading the book is that uncertainty still exists as to whether the basis of coeliac disease is an enzymatic deficiency or some kind of immunological defect, though the reader is left with the impression that the latter is more probable.


It has been a pleasure to review this book. Firstly, the contributors have great experience in the detection and handling of the conditions they describe; secondly, they have not confined themselves to treatment but have included authoritative information about the causation and clinical presentation of the 8 disorders described. These are phenylketonurias, homocystinuria, maple syrup urine disease, the galactosaemias, hereditary fructose intolerance and fructose 1-6 diphosphatase deficiency, Wilson's disease, and the organic acidemias. The preface by Dr. Raine provides a thoughtful intro-