Book reviews


Transmission electron microscopy is rapidly becoming a widely used technique in modern haematology. Many papers appearing in haematological journals include electron micrographs of various types of blood cell abnormality in bewildering profusion. Any volume which can throw light on the electron microscopic appearances of normal blood cells is therefore welcome to those unfortunate haematologists who do not have access to an electron microscope. The question of whether any significant new information is produced by electron microscopy in blood disorders is, of course, another matter.

Professor Hayhoe has already produced one of the most realistic colour atlases of blood cells and their precursors. The volume under review maintains the same high standards. The whole book is printed on high quality paper and the electron micrographs are of an excellent standard and well reproduced.

Initially, there is a section on the technical methods used in the preparation of specimens for microscopy. This is clear and to the point, apart from a few rather annoying abbreviations, eg, ‘h’ for ‘hour’. One is then led gently and systematically through the ultrastructure of the various cells in normal human blood. Each section is presented uniformly: first, a brief introduction giving a general description of the electron microscopical appearances of the particular cell; secondly, a series of electron micrographs depicting the cell in detail with an appropriate text on the facing page. After peripheral blood, the ultrastructure of blood cell precursors in normal bone marrow is described. Then follow chapters on abnormal cells in the acute leukaemias, erythraemic myelosis, the chronic leukaemias, and myelomatosis. The book ends with a comprehensive bibliography.

This volume must inevitably be compared with the atlas of Huhn and Stich on ‘Fine structure of blood and bone marrow’ published in 1969. The electron micrographs are probably fractionally of higher quality in Huhn and Stich’s book, but their atlas suffers from the drawbacks of translation, contains much material from the rat, makes no attempt to cover normal blood cells, and is considerably more expensive. There is no doubt that the atlas of Dr Cawley and Professor Hayhoe represents far better value for money and can be thoroughly recommended.

One major criticism remains: although magnifications are given for each illustration, no scale is marked on the actual micrograph. This makes any assessment of the size of the structures described very tedious. It is now general practice for a scale to be given and it is hoped that, if this book reaches a second edition, as it deserves, the authors will rectify this fault.

A minor criticism: at least half of the black backing to the title of the book has come off the reviewer’s hands. Publishers, please note!

A. J. SALSBURY


A succinct account of the clinical and laboratory aspects of diagnosits and management of childhood leukaemia has been achieved in a small and readable book. Some good points are made in the text, eg, in defence of combination chemotherapy: ‘Ehrlich said 80 years ago, several drugs are better than one when none is totally effective’. Great emphasis has rightly been placed upon the pathogenesis, prophylaxis, and treatment of meningeal leukaemia. Regarding drugs that might cross the blood-brain barrier the cogent point is made that ‘Attempts to control central nervous system leukaemia by increasing drug distribution into the brain are irrelevant because central nervous system leukaemia is primarily an arachnoid disorder, not a disorder of the brain parenchyma’.

There is even coverage of all aspects of the subject with good discussion of the problem of infections and precise accounts of metabolic supportive therapy. A useful description is given of the rare chronic myeloid leukaemias of childhood and also of congenital forms of leukaemia, the latter topic being one which Dr Pochedly has recently reviewed elsewhere.

Although the different cytological types of acute leukaemia are fully described in the early sections of the book there is no discussion of the drug therapy for myeloblastic or myelomonocytic forms of the disease. Although far less common than the lymphoblastic forms they nevertheless occur in childhood in significant numbers. The suggested therapeutic schedule for ‘childhood acute leukaemia’ is one based upon the work of Pinkel’s group at St Jude’s Children’s Research Hospital and is clearly designed for the commoner lymphoblastic cases.

The usual plea is made, and rightly so, for treatment of these diseases in special centres or in hospitals associated with such centres. A phrase I liked was ‘one who manages childhood leukemia truly has a “tiger by the tail”’.

M. L. N. WILLOUGHBY


This is a unique book of inestimable value to anyone responsible for the care and management of children with leukaemia. Every facet of both clinical and laboratory aspects is discussed with the wisdom that comes from wide experience of the disease. The bibliography is extensive throughout and virtually every statement in the text which could possibly need substantiation is duly documented. This will make the book a valuable source of references (some in 1973) to those working in this field for some years to come.

Topics include discussion of the aetiology of leukaemia, clinical and other features at diagnosis, morphological diagnosis and varieties of the disease in childhood, preleukaemia, and diseases which may mimic leukaemia in children. Outstandingly useful chapters deal with problems of fever, infection, and metabolic derangements associated with the disease and its therapy, including practical guidance of their management. Leukaemia of the central nervous system is given appropriate emphasis both with respect to treatment and prophylaxis. Sections on chemotherapy give drug schedules both for ALL and other groups including AGL, as well as discussion of the factors affecting prolonged survival. Pharmacology and side effects of the drugs are brought together in a single chapter, and the book ends with some useful words of wisdom concerning the problems of emotional and psychological support that can be offered to the child and its parents throughout the course of the disease.
Ultrastructure of Haemic Cells

A. J. Salsbury

J Clin Pathol 1974 27: 258
doi: 10.1136/jcp.27.3.258-a

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