

and no drift in pH was detected over this period. It seems relevant that heparin has been shown to remain stable over a pH range of 2.0-9.0.⁶

Our findings are in agreement with those of others^{6,7} that heparin is stable in intravenous fluids under clinical conditions. Hence the administration of heparin by continuous intravenous infusion should not be regarded as a sub-optimal method on this account.

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Book reviews

Primary Intracranial Neoplasms. Ed JH Sher and DH Ford. (Pp 174; illustrated; £10.50.) Spectrum Publications. 1980.

This little book is basically the Proceedings of a Symposium on Primary Intracranial Neoplasms originally sponsored by the Brooklyn Unit of the American Cancer Society. The first chapter is a useful review of experimental models of neoplasia in the central nervous system, and this is followed by several clinically orientated chapters including computed tomography. The next chapter is a reasonably well illustrated account of the electron microscopy of brain tumours, and then there is a very brief, poorly illustrated review of the cytological diagnosis—mainly CSF cytology—of brain tumours. The final chapters deal with surgical treatment and chemotherapy.

There is really not very much in this book for general pathologists. The symposium was, however, organised to provide a review of present knowledge concerning the biological behaviour, diagnosis, and treatment of primary brain tumours. It is a brief review that probably achieves its aim, and doctors in various disciplines with an interest in primary brain tumours may well find it useful reading.

JH ADAMS

Chemical Diagnosis of Disease. Ed S Brown, FL Mitchell, and DS Young. (Pp xviii + 1383; illustrated; \$74.75.) Elsevier North Holland Inc. 1979.

This book was written to meet the demand for authoritative and integrated information on the interpretative aspects of clinical chemistry tests. There are over 1300 pages covering a wide range of subjects written by authors of international repute. Topics that are particularly well covered include enzymes, liver function, inborn errors of metabolism, neurogenic amines, and cancer. Chapters on nutrition, parenteral therapy, and paediatric biochemistry would have added to its value.

The absence of reference ranges in a number of chapters reduces its diagnostic value as a reference book in a number of clinical situations. The title is misleading and perhaps one such as 'The Clinical Chemistry of Disease' would make a greater impact on our medical colleagues

who would benefit from the information in this book.

The binding is poor and the price of £38.25 is beyond the pocket of most students. Nonetheless, it fills a much-needed gap, and I recommend it to both medical and departmental libraries and to those who can afford it.

BM SLAVIN

Renal Pathology. EM Darmady and AC MacIver. Postgraduate Pathology Series. Ed Sir Theo Crawford. (Pp xii + 548; illustrated; £35.) Butterworths. 1980.

This book forms one of a postgraduate pathology series and is intended for pathologists in training and for pathologists and nephrologists investigating renal disease, particularly those working in isolation. The book is a departure from the large and increasing number of textbooks on renal pathology in that it emphasises the authors' interests in those aspects of renal pathology concerned with microdissection techniques, morphometric studies of age changes in the kidney, malformations, and renal abnormalities associated with metabolic diseases. There is however adequate coverage of other conditions likely to be encountered in everyday nephrological practice. The authors have an easy style of writing, and the book is well illustrated. At the end of each chapter there is a long list of references. In future editions it would be desirable for these to be reviewed, and many of the older references could be omitted without much loss. The final chapter deals with microdissection and immunofluorescence techniques. This book will form a useful addition to the library of those interested in renal pathology.

JR TIGHE

Lecture Notes on Clinical Chemistry. 2nd ed. LG Whitby, IW Percy-Robb, and AF Smith. (Pp xiv + 504; illustrated £7.75.) Blackwell Scientific Publications. 1980.

The selection and interpretation of chemical investigations are of great importance to newly qualified doctors who should develop a critical approach to the request for such tests. The foundation for this approach must be laid in the teaching of medical studies in the clinical

years of their course. This book advocates a selective approach to the requesting of tests, rather than the uncritical use of batteries of investigations. It is not a laboratory textbook of practical clinical chemistry but rather a book that provides general information about the biochemical basis of disease.

In this second edition several chapters have been extensively revised, and a new chapter on clinical chemistry in geriatrics has been added. It seems a pity that the latter is so limited in scope, occupying only six pages. Geriatric chemical pathology is likely to be a marked growing point in the future and demands greater attention. It is pleasing to note the attempts by the authors to deal with such topics as therapeutic monitoring, computers, profile and screening methods of investigation, the terminology of SI units, and side room chemical tests, in addition to chemical investigation, but the growth of chemical pathology is such that to encompass all of these items in a single textbook is becoming extremely difficult.

A very readable and comprehensive book which can be recommended to all working in a hospital laboratory.

GW PENNINGTON

Atlas of Human Hemopoietic Development. E Keleman, W Calvo, and TM Flidner. (Pp 266;343 figs; 204 in colour; US \$202.40.) Springer-Verlag. 1979.

The authors' aim is to demonstrate the essential histological, cytological, and electron microscopic findings of various stages of human haemopoietic development obtained during a study of 190 embryos and fetuses.

An introductory chapter discusses the concept of 'first generation haemopoietic cells' in yolk sac, chorion, and body stalk, with subsequent stem cell migration via vitelline and umbilical vessels to establish intraembryonic 'second generation' haemopoiesis in liver. Further stem cell migration results in bone marrow and splenic haemopoiesis, and lymphopoiesis in lymph node and thymus.

The three photographic sections are logically presented in chronological order; the first deals with extraembryonic haemopoiesis, the second with intravascular haemopoietic cells, and a final section with 'organ-bound' haemopoiesis. The photography is of high quality throughout. Black-and-white photographs are used mainly to illustrate organ

development, and there are excellent colour photographs of haemopoietic cells. The electron microscopy includes some fascinating pictures of cellular contacts between endodermal environmental cells and erythropoietic precursors. The text however is not quite so satisfying. The section on embryology lacks illustrations and had me searching for an embryology text containing explanatory line drawings. Furthermore although the authors acknowledge the limitations of morphology in identifying stem cells the photographic legends abound with 'assumed', 'presumed', and 'apparent' progenitor cells, perhaps thereby confirming the illusive nature of the human pluripotent stem cell. Despite these criticisms I think the book would be a useful reference for those working in this field and may also provide some interesting insights for the amateur.

CA SIEFF

Cancer: Assessment and Monitoring. Ed Sir Thomas Symington, AE Williams, and JG McVie. (Pp 412; illustrated; £22.) Churchill Livingstone. 1980.

Publications on cancer and cancer-related topics are appearing at a rate which, many feel, far exceeds the generation of new information. As a result, many items are widely dispersed in the literature, and selective reading becomes harder to maintain. The very diversity of much related information, extending from basic science at one end of the spectrum to clinical trials at the other, does identify the need for books that assemble facts concerning associated topics under strict editorial control.

This book contains a distillate of papers presented at the Tenth Pfizer Symposium on the theme of the assessment and monitoring of cancer. An introductory chapter on the biology of cancer by Symington sets the scene for chapters on clinical assessment, pathological techniques and diagnosis, tumour immunology, radiological assessment, nuclear medicine and assessment, biochemical aspects, and a final section on topics related to data collection. Although some chapters relate to information of little immediate value in the current understanding of disease assessment, others are informative and well referenced.

The heterogeneous quality of the chapters reflects the blanket publication of a symposium, but the critical reader

who has the time to browse through this book will find several bright spots which will amply justify his effort.

JMA WHITEHOUSE

A Colour Atlas of Tumour Histopathology. NFC Gowing. (Pp 272; illustrated; £35.) Wolfe Medical Publications. 1980.

Nine hundred and forty-four colour photographs of Royal Marsden Hospital histopathology specimens, with comments by the professor, should be impressive, interesting, and instructive. It is all of these, even though the pictures are small and the comments are brief.

It is no fault of the author if this book does not prove to be of great importance. Histopathology is not just pattern matching, and atlases are not working bench books. This atlas will be well used by membership candidates in their period of purgatory between the papers and the practical, but many of us may hope that the author will have another opportunity of combining colour photographs with a more extensive text—colour histopathology in depth. Gardeners, ornithologists, and cooks are now well provided with colour publications, and this book, one of the best of its kind, shows the way ahead for histopathology and colour photography.

RAB DRURY

Notice

The Casey Holter Memorial Prize

Entries are invited for the Casey Holter Memorial Prize, which will be awarded in 1981 for the best essay reporting original work bearing on the pathogenesis or treatment of spina bifida or hydrocephalus. The prize will be £250. Entries should be submitted before 30 April 1981 to Mr DG Young, Royal Hospital for Sick Children, Yorkhill, Glasgow, G3 8SJ, UK.