
Extensive tests, including tests of cardiac function and tests of blood coagulation, were carried out in 65 patients with cardiosclerosis and anemia before, 24 hr after, and 72-96 hr after blood transfusion therapy using both regular donor and cadaver blood. Slow (droplet) transfusions produced brief changes in the contractile function of the myocardium, and later improvement of the myocardial function was noted. An increase in coagulation indices showed no tendency to favor the development of thromboembolism. In cases where hypercoagulability had been a clinical problem, transfusions of cadaver blood increased the fibrinolytic activity in a beneficial manner and in such patients, this procedure is to be recommended. — J. V.


A specific uptake of radioactive indium by plasma transferrin may be obtained when this protein is not saturated with iron. In this case about 50% of the tracer is found in the erythropoietic bone marrow. Scintigrams of the bone marrow have been obtained in several pathologic conditions. However, quantification of bone marrow density will only be possible when several problems are resolved: standardization of plasma labeling, exact knowledge of the kinetics of the labeled transferrin, and percentage of the hepatic uptake. — J. C.


Retrospective study of fine needle biopsies of spleens from 17 patients with polycythemia vera, nine of whom had splenomegaly, showed no major incidence of frequent abnormalities except for many platelets. — P. G. R.


Boys and girls between 2 and 17 yr of age who received cyclophosphamide for nonmalignant conditions had normal levels of FSH and LH despite continuing therapy, in some instances, for 1-2 yr. — J. B. S.


The median survival rate of children with disseminated neuroblastoma, treated by protocol with VCR and CPM, during 1966-68 was compared to that of children treated in 1956 and 1962. Although over-all statistics seemed the same, patients who could be classified as "responders" survived twice as long as "non-responders," who made up 40% of the 51 patients evaluated. — J. B. S.

BOOK REVIEWS


This monograph, true to its title, deals with clinical trials in acute leukemia, but it is also concerned with three more or less separate problems: diagnosis, study design, and the reporting of results. This last section is of the least
interest since the information presented was already in print or in press elsewhere in 1972. The sections on diagnosis and experimental design are as current today as they were at that time and express sentiments and concerns which are relevant to all therapeutic trials in medicine: given the innate heterogeneity of patients and their diseases and the often arbitrary and imprecise definitions in nosology, how does one best stratify prospectively and analyze retrospectively clinical conditions so as to maintain both medical and scientific integrity? The excellent participants in this symposium—rightfully designated as a workshop—failed to resolve this dilemma, but within the short (167 pages) confines of this very readable text there are many insights, biases, and hard-won personal tenets that could well serve investigators entering into or struggling within this area of research.

The nature of this volume prevents it from being entirely satisfactory to any one reader. It is neither a forum for innovations nor, certainly, a reference text from which one can derive methodology. It is therefore a source of moderate frustration to one who might have hoped for a full exposition of the subclassifications of acute leukemia proposed by Mathé and collaborators, an in-depth review of nonspecific esterases as adjuncts to the morphologic diagnosis of leukemia, and an adequate discussion of the diagnostic and prognostic importance of immunologic techniques and marrow culture assays. It is also unfortunate that apparent inconsistencies in observations, e.g., the labeling indices of Gavosto versus those of Frei and Hart and the CFC results of Pouillart versus those of Cowan et al., are not further discussed, let alone reconciled. Nonetheless, this is a stimulating antipasto; we will just have to wait a bit for dessert.

The section on the methodology of clinical trials is worthwhile to any involved investigator. It is particularly recommended for anyone whose position requires that he recognize that the nature of the "front end" (initial patient selection, exclusion, and stratification) becomes more important as our therapeutic efficacy increases and that he utilize Pike's dogma ("think biologically"), as I think we all should.—Edward Henderson, M.D.


The authors' aim is to give an easily read and easily understood account of the many facets of cancer research. This is a book for vacation or after hours reading. The effort is eminently successful, for a difficult and confusing mass of literature is described in an entertaining though not journalistic manner. It is interfaced with proverbs, anecdotes, philosophical diversions, and pointed quotations. The account is necessarily compressed and simplified, but does not become simplistic, and is judiciously free of fixed ideas. Throughout the book, and especially in the section entitled "tumor theories in dialogue," the authors point out pitfalls in the various theories on cancer. The book should be easily read by persons with a minimum of biologic background. The audience for this book is wide—a great deal of the material will be new for students, while investigators in cancer research will welcome a bird's-eye view of many areas in which they are not directly involved. The book starts out with a discussion of the environmental influences on the incidence of tumors, then launches into the history of experimental induction of tumors with chemicals, and proceeds to an exposition of the importance of metabolic reactions in the host, which both detoxify active carcinogens and convert inactive chemicals into potent carcinogens. Subsequent sections describe the role of "chalones" and of wound hormones in tumor growth, the changes in cell function and architecture on cell transformation, the regulation of cell growth by serum factors, the Warburg hypothesis, the role of the immune system in control of growth of tumors, the role of viruses, the evidence of genetic influences on susceptibility to tumor development, and the metabolic bases of tumor chemotherapy. The authors provide a reasoned and sequential account; credit is given to investigators who have put forth hypotheses and presented experimental evidence, but no detailed references are given—these would have added considerable bulk, as well as changed the scope and the intent of the book. Sources of quotations and of illustrations are provided, as well as a bibliography of the more voluminous works treating cancer as a biologic phenomenon. In brief, this is an enjoyable and informative book on a fascinating field of research.—E. Kaminskas, M.D.


This volume is a timely treatise which reviews
and interprets the results of a large series of studies carried out over a number of years by the author and a number of associates concerning the changes in bone marrow associated with stimulation and depression of erythropoiesis. In large part, the studies have been carried out in the guinea pig although they have not been limited to this species.

The book includes eight chapters of which four comprise the core, a synthesis of quantitative studies carried out at the University of Bristol and more recent ultrastructural studies of the erythroblastic island in collaboration with Dr. Zina Ben-Ishay in Jerusalem. Appropriately, the author has made effective correlations of morphologic observations and quantitative data on functional alterations of the bone marrow.

A major contribution of this treatise is in providing further clarification of the interrelations of lymphocytes and “transitional cells” which constitute a major compartment in bone marrow and are designated as a single functional group, the lymphocyte transitional cell compartment. A great amount of evidence is present which has led the author to the conclusion that transitional cells, like lymphocytes, are a functionally heterogeneous group of cells. This group of cells has been too often overlooked in studies of the bone marrow and hemopoiesis. Thus, it is appropriate and important to have a synthesis of the great amount of data from the author’s and other laboratories concerning these cells and their changes in response to hemopoietic and immunologic stimuli.

The core section of the book is preceded by a brief introductory historical chapter and by chapters on blood vessels of bone marrow and on marrow volume. The final chapter reviews a number of approaches to the stem cell problem and treats them in relation to the quantitative and ultrastructural studies described in the core section of the book.

This volume reflects the lucid style of the author and his command of the early and recent literature concerning hemopoiesis. Further, the book is well illustrated. It will be of interest to many investigators, teachers, and clinicians with interests in hematology and immunology.—N. B. Everett, Ph.D.

BOOKS RECEIVED FOR REVIEW


Note: Includes the following sections:
4. Early Events of Tissue Injury and the