VOL. V, 1950

BLOOD
The Journal of Hematology

CONTENTS

No. 1

Studies on Blood Formation and Destruction in the Polycythemia of High Altitudes ........................................... César F. Merino 1
The Hemorrhagic Syndrome of Acute Ionizing Radiation Illness Produced in Goats and Swine by Exposure to the Atomic Bomb at Bikini, 1946 E. P. Cronkite 32
A Hemophilia-like Disease with Prolonged Coagulation Time and a Circulating Anticoagulant. Report of a Case in a Female O. Herman Dreskin and Nathan Rosenthal 46
Dangerous Universal Donors. I. Observations on Destruction of Recipient’s A Cells after Transfusion of Group O Blood Containing High Titer of A Antibodies of Immune Type not Easily Neutralizable by Soluble A Substance ........................................... Donald M. Ervin and Lawrence E. Young 61
Phase Microscopy Studies of Hodgkin’s Disease Lymph Nodes in Relation to Histogenesis of the Sternberg-Reed Cell George T. Hoffmann and Antonio Rottino 74
The Localization of Lipids in Human Blood and Bone Marrow Cells Marvin L. Bloom and George B. Wislocki 79
Observations on the Hematologic Values of the Japanese Fred M. Snell 89
Editorial: Bone Marrow Examinations and the “L. E.” Cell William Dameshek and Marvin L. Bloom 101
Abstracts ................................................................. 103
Book Reviews .......................................................... 106

No. 2

The Treatment of Erythroblastosis Fetalis by Transfusion with Sedimented Red Cells .................................... Samuel Pennell 107
Reactions to Single and Multiple Transfusions. Comparison between Homologous and Conditioned O Blood Transfusions Niels C. Klendshoj and Ernst Witebsky 123
Transfusion Reactions to a Plasma Constituent of Whole Blood: Their Pathogenesis and Treatment by Washed Red Blood Cell Transfusions William Dameshek and Jacob Neber 129
The Effect of Folic Acid on the Central Nervous System of Normal Subjects and Subjects with Anemia other than Pernicious Anemia

Jonas Weissberg, T. H. McGavack, Mildred Vogel and S. Kenigsberg

The Action of Pteroylglutamic Acid on Blood Dyscrasias Induced by Thiouracil and Propylthiouracil

R. A. Delor and H. G. Petering

The Effect of 4-Amino-Pteroylglutamic Acid (Aminopterin) on Human Leukocytes in Vitro

F. W. Gung

The Effects of 4-Amino-N°-Methyl-Pteroylglutamic Acid on the Leukocytes of the Normal and Leukemic Mouse

J. H. Burchenal, J. L. Biedler, J. Nutting and G. D. Stobbe

Lymphocytes in Thoracic Duct, Intestinal and Hepatic Lymph

Joseph D. Mann and George M. Higgins

Plasmacytosis in Diseases Other than the Primary Plasmacytic Diseases. A Report of Six Cases

Robert S. Fadem and John E. McBirze

Abstracts

News and Views

Book Reviews

No. 3

Granulomatous Lesions in the Bone Marrow in Infectious Mononucleosis. A Comparison of the Changes in the Bone Marrow in Infectious Mononucleosis with those in Brucellosis, Tuberculosis, Sarcoidosis and Lymphatic Leukemia

Ruth F. Hovde and R. Dorothy Sundberg

Hereditary Nonspherocytic Hemolytic Anemia

William H. Crosby

Studies on Charcot-Leyden Crystals

William W. Ayres and N. M. Starkey

Acid and Alkaline Phosphatase in White Cells. Data for the Lymphocyte and the Polymorphonuclear Leukocyte of Man and the Rabbit

W. F. Haight and R. J. Rossiter

Hemoglobin Levels among Seven to Fourteen Year Old Children in Saskatoon, Canada

W. W. Hawkins and Dorothy K. Kline

Hypersplenism Associated with Follicular Lymphoblastoma. Report of a Case with Splenectomy

Lawrence Berman, Alfred A. Klein, Herman J. Linn and Gaylord S. Bates

Editorial: Red Cell Shape and Molecular Arrangement of Hemoglobin

Eric Ponder

Abstracts

News and Views

Book Reviews

No. 4

Prothrombin, Thromboplastin, Ac-Globulin and Platelet Accelerator: Quantitative Interrelationships

Robert I. McClaughray and Walter H. Seegers

The Relationship of Plasma Prothrombin Concentration and the Degrad-
CONTENTS

Refactoriness in Hemophilia to Coagulation-Promoting Agents: Whole Blood and Plasma Derivatives
Walter B. Frommeyer, Jr., Robert D. Epstein and F. H. L. Taylor 401
Some Properties of Purified Prothrombin and Its Activation with Sodium Citrate
Walter H. Seegers, Robert I. McCaughry and John L. Fahey 421
Thrombotic Thrombocytopenic Purpura. II. Studies on the Hemolytic Syndrome in this Disease
Karl Singer, Arno G. Motulsky and Jacob N. Shanberge 434
Thrombocytopenic Purpura Complicating Infectious Mononucleosis. Report of a Case and Serial Platelet Counts during the Course of Infectious Mononucleosis
Richard M. Angle and Howard L. Alt 449
Megaloblastic Anemia of Infancy. Response to Vitamin B12
Phillip Sturgeon and Gurth Carpenter 458
Megaloblastic Erythropoiesis in Patients with Cirrhosis of the Liver
E. R. Movitt 468
Classification of the Hematologic Variations and Abnormalities Associated with Boeck’s Sarcoid; Review of the Literature. Report of a Case of Thrombocytopenic Purpura Associated with Sarcoidosis, with Recovery following Splenectomy
Marco Bruschi and John S. Howe 478

No. 6

Transmission of Antianemic Principle across the Placenta and Its Influence
on Embryonic Erythropoiesis. II. Comparison of the Effect of Liver Extract and Pteroylglutamic Acid (PGA)

Oliver P. Jones and Adolph Smith

499

Experimental Anemias in the Rat. I. Macrocytic Anemia in Chronic Pteroylglutamic Acid Deficiency and after Splenectomy in Bartonella Muris Infection

E. Kodicek and K. J. Carpenter

522

II. The Effect of Various Sulfonamides in Producing a Pteroylglutamic Acid Deficiency and the Pteroylglutamic Acid Activity of Test Substances

E. Kodicek and K. J. Carpenter

540

Dangerous Universal Donors. II. Further Observations on in Vivo and in Vitro Behavior of Isoantibodies of Immune Type Present in Group O Blood

Donald M. Ervin, Richard M. Christian, and Lawrence E. Young

553

Thrombopathic Thrombocytopenia: Successful Transfusion of Blood Platelets

Erwin O. Hirsch, Jean Favre-Gilly, and William Damashek

568

The Sternal Marrow Aspiration of Amyloid in Multiple Myeloma

Sidney Trubowitz

581

The Supravital Method in the Study of the Cytology of Blood and Marrow Cells

Joseph L. Schwind

597

Studies on the Histamine Content of Blood, with Special Reference to Leukemia, Leukemoid Reactions and Leukocytoses

William N. Valentine, Morton Lee Pearce, and John S. Lawrence

623

Reticulocyte Ripening in Experimental Anemia and Hypoproteinemia. Effect of Amino Acids in Vitro

A. Niet and F. S. Robscheit-Robbins

648

The Phosphatases of Human Erythrocytes

Helen Quincy Woodard

660

Acute Infectious Lymphocytosis

John B. Moyer and George S. Fisher

668

Erythrophagocytosis in Hemolytic Disease of the Newborn. A Report of Twenty-five Cases

Mary B. Cooper

678

Studies on the Relationships of Vitamin B₁₂, Folic Acid, Thymine, Uracil, and Methyl Group Donors in Persons with Pernicious Anemia and Related Megaloblastic Anemias


695

Blood Factor in Acute Disseminated Lupus Erythematosus. II. Induction of Specific Antibodies against L. E. Factor

John R. Haserick and Lena A. Lewis

718
CONTENTS

The Effect of Administration of Epinephrine on the Leukocyte Counts of Normal Subjects

Celin White, Tsuin Hwa Ling and Arnold M. Klein

Changes in Circulating Leukocytes following the Administration of Adrenal Cortex Extract (ACE) and Adrenocorticotrophic Hormone (ACTH) in Infectious Mononucleosis and Chronic Lymphatic Leukemia

Richard H. Saunders, Jr., and Elijah Adams

The Nature of Plasma Antithrombin Activity

Peter D. Klein and Walter H. Seegers

The Effect of Vitamin B12 on the Leukopenia Induced by Radiation

Robert E. Carter, Elizabeth Busch and Verda Strang

The Effect of Cysteine on the Peripheral Blood of the Irradiated Rat

Harvey M. Patt, Douglas E. Smith and Eugenia Jackson

The Uptake of Radioactive Iodine by the Thyroid Gland of Leukemic Patients

Edwin C. Albright and William S. Middleton

The Significance of ABO Compatibility and Its Relationship to the Intensity of Rh Immunization

S. P. Lucia and Marjorie L. Hunt

Leukemia in a Three Month Old Infant. Report of a Case Showing Chloromatos Features

Francis S. Jones, Louis J. Numainville and Welland A. Hause

Editorial: ACTH and Its Hematologic Impact

William Dameshek

Abstracts

Book Review

No. 9

Hereditary Spherocytic Anemia in the Negro


Severe Mediterranean Anemia (Cooley’s Anemia) in a Chinese Child

Q. B. DeMarsh

The Effect of Racial Mixtures upon Erythrocyte Sickling

John H. Hodges

Familial Nonspherocytic Hemolytic Anemia

Eugene Kaplan and Wolf W. Zuelzer

Paroxysmal Nocturnal Hemoglobinuria. The Mechanism of Hemolysis and Its Relation to the Coagulation System

William H. Crosby and William Dameshek

Paroxysmal Nocturnal Hemoglobinuria. A Specific Test for the Disease Based on the Ability of Thrombin to Activate the Hemolytic Factor

William H. Crosby

Microscopic and Histochemical Studies on the Auer Bodies in Leukemic Cells

G. Adolph Ackerman

β-Glucoronidase of Human White Blood Cells

R. J. Rossiter and Esther Wong

The Efficiency of an Iron-Molybdenum Preparation as Evaluated by Means of Iron Absorption Tests

Sten Gulberg and Bo Vahlquist

News and Views: Abstracts of Third Annual Meeting of Blood Club

(ACTH in Leukemia)

723

732

742

753

758

764

767

773

779

781

784
The Cause of the Sexual Differences in Erythrocyte, Hemoglobin and Serum Iron Levels in Human Adults.......................... Bo Vahlquist 874
Editorial: "Idiopathic" Hypochromic Anemia—An Obituary
Carl V. Moore 876
Abstracts ........................................................................ 878
News and Views .................................................................. 885

No. 10
The Occurrence in a Family of Sicilian Ancestry of the Traits for Both Sickling and Thalassemia........ W. N. Powell, J. G. Rodarte and J. V. Neel 887
Folic Acid Antagonists in the Treatment of Acute and Subacute Leukemia
William Dameshek, Milton H. Freedman and Lester Steinberg 898
Benign Pericardial Effusion in the Course of Chronic Myelogenous Leukemia.
Case Report .................................................. Nathan H. Friedman and Jacob J. Silverman 916
Hemolytic Anemia in Myelogenous Leukemia with Splenectomy
Olaf Jonsson, O. C. Hansen-Pruss and R. W. Rundles 920
Blood Exchange in Replacement Transfusions. I. Theoretic Considerations
L. R. Wasserman and L. Sharney 925
II. Studies with Erythrocytes Tagged with Radioactive Phosphorus
L. R. Wasserman, I. A. Rashkoff, L. Sharney, T. F. Yob and D. Leavitt 938
The Sedimentation Differential Agglutination Test. I. Method of the Test. II. Observations on the Destruction and Production of Red Blood Cells, with Special Reference to Myeloblastic Leukemia and Comparison with the Results of the Radioactive Phosphorus Method ...... Daniel Stats 950
The One-Stage Prothrombin Consumption Test. Clinical Value in the Identification of Thromboplastin-Deficiency Diseases
Mario Stefanini and William H. Crosby 964
Abstracts ........................................................................ 973
Book Reviews ..................................................................... 981

No. 11
Iron Metabolism: The Pathophysiology of Iron Storage
Clement A. Finch, Mark Hegsted, Thomas D. Kinney, E. D. Thomas, Charles E. Rath, Donald Haskins, Stuart Finch and Rex G. Fluharty 983
The Intestinal Content in Pernicious Anemia of Factors for the Growth of Streptococcus Faecalis and Lactobacillus Leichmannii
Ronald H. Girdwood 1009
The Electrical Conductivity of Blood. I. Relationship to Erythrocyte Concentration
Frederic G. Hirsch, E. Clinton Texter, Jr., Lloyd A. Wood, William C. Ballard, Jr., Francis E. Horan, and Irving S. Wright 1017
II. Relation to Red Cell Count
## CONTENTS

Additional Evidence for the Anti-d: Statistical Studies  
Joseph M. Hill, Sol Haberman, Ruth Guy and Julius W. Davenport, Jr. 1049

Guanazolo in the Therapy of Hodgkin’s Disease  
Bernard Strauss, Solomon Berson, Theodore Bernstein and Abraham S. Jacobson 1059

Hemolysis with Alloxan and Alloxan-like Compounds, and the Protective Action of Tocopherol  
Catherine S. Rose and Paul György 1062

Abstracts 1075

No. 12

Studies in Electron Microscopy of Blood Cells  
M. Bessis 1083

Transfusion of Leukemic Leukocytes in Man. Hematologic and Physiologic Changes  
Jonathan T. Lanman, Howard R. Bierman and Ralph L. Byron, Jr. 1099

Intravascular Hemagglutination. Experimental and Clinical Observations, with Special Reference to the Pathogenesis of Kernicterus  
Richard Day and Elise Perry 1114

The Influence of Rh Hapten Therapy in the Course of Rh Isosensitization in Pregnancy  
Carroll L. Spurling, Milton S. Sacks and Elsa F. Jahn 1125

Circulating Anticoagulants in Hemophilia and in Hemophilia-like Disease  
Karl Singer, Ernest Mond, Julian Hyman and Robert C. Levy 1135

Group-Specific Appearance of Plasma Clots  
G. J. Stark and N. Stivel 1150

The Effect of Desoxycorticosterone Acetate and Vitamin C on Chronic Leukemia  
Stacy R. Mettier, Matthew J. Ellenborn and Gilbert Gordon 1156

Aleukemic Leukemoid Response in Miliary Tuberculosis  
J. S. Staffurth and H. Spencer 1161

Editorial: Iron Deficiency, Iron Therapy and Injectable Iron  
William Dameshek 1167

Abstracts 1169

Book Reviews 1179