

EDITORIAL

THE ancients were fascinated by the blood. To it were ascribed many magical attributes. It became the focus of many ritual practices, the fundamental basis of racial differences, the crux of life itself.

With the invention of the microscope, two types of blood cells were at first revealed, and later a third—the platelet. Applying to the blood the aniline dyes newly developed in his time, Paul Ehrlich then transformed the research from the difficult art of peeping at fresh, unstained blood cells to one in which several kinds of beautifully colored objects could be gazed at unhurriedly. This allowed continued study and the separation of one cell from the other; because of this achievement alone, Ehrlich has often been considered the father of hematology. Study of the blood cells and their often minute variations proved fascinating, perhaps unduly so in some instances. In central Europe chiefly, there was so much preoccupation with the minutiae of cellular structure, transition forms, modes of cellular development, etc., that the forest could hardly be seen for the trees. Long-winded polemical articles—notably those by Pappenheim, who founded *Folia Haematologica*—made hematology a jousting ground in which almost fanatical wars were fought between monophyletists, dualists, and exponents of the polyphyletic school of blood cell development. The simple in blood became the complex, and for most physicians hematology became a dead subject, characterized by many Greek names and of only small practical importance.

The discovery, by the American investigators, Minot and Whipple, of the value of liver in pernicious anemia, came like a fresh breeze into a long-stagnant area. Not alone could a previously fatal disease now be quickly cured, but new yardsticks, such as the reticulocyte count, could be applied to assay the effects of therapy. Thus the dynamic or physiopathologic method of approach became in this instance as important as the purely histologic, and soon led to a host of investigations along physiologic, chemical, and biologic lines. As a result, the facts of the essential physiopathologic disturbances in pernicious anemia were worked out, together with the determination of the more fundamental importance of the disease as one of a group of deficiency syndromes. A quick transformation in hematologic thought soon became evident.

Hematology in central Europe lagged somewhat behind in this revolution, with much of the newer work coming to light in this country. Thus Naegeli, the late “pope of hematology,” reacted so violently to this American method for treating pernicious anemia that he conducted a poll of European hematologists regarding their reactions to it, and on the basis of this “proved” that liver had no value in the treatment of pernicious anemia.

The dynamic approach to studies of the blood and the blood-forming organs has led to many important discoveries. Among these—to cite but a few—are: Castle’s discovery of the lack of a proteolytic enzyme in the gastric juice of patients with pernicious anemia; the importance of an adequate amount of iron in the therapy of chronic iron deficiency states; the interrelationships between pernicious anemia,

certain vitamin B deficiency states, and sprue; the importance of vitamin K in hypoprothrombinemia; the concept of hemolytic anemia as an active process due to certain hemolyzing agents such as hemolysins, agglutinins, the spleen itself, etc.; the Rh factor and its relationship to hemolytic disease of the newborn and to transfusion reactions; the importance of blood and blood substitutes in the therapy of shock, etc.

One must confess however, that in some quarters the great emphasis laid upon the dynamic has led to almost complete neglect of the morphologic approach. I know of one laboratory, for example, where examination of a blood smear or of a sternal puncture preparation is looked upon almost disdainfully. This is reaction carried to the opposite extreme. The morphologic may give hints and even definite evidence of the physiologic: thus the spherocyte is indicative of a red cell that has been injured by a hemolytic agent, the orthochromatic macrocyte usually means a deficiency in liver extract principle, pancytopenia often indicates a bone marrow disturbance or a splenic dysfunction, etc. Those who wish to be well versed in the study of the blood should thus have a thorough knowledge of morphology as well as of the more modern concepts of dynamic medicine. This idea can perhaps be best exemplified in the well informed clinician. To be sure, in some quarters the hematologist is the hospital pathologist; in others he is the "transfusionist"; in still others, the clinical pathologist, the anatomist, etc. To our way of thinking, however, a thorough grounding in the field of internal medicine, together with a thorough knowledge of morphology and physiopathology, should make the complete hematologist. It is highly probable that no single method of looking at the blood is sufficient in itself, and that hematology is a broad field with morphologic, clinical, physiologic, biochemical, and immunologic relationships.

Studies dealing with the blood and the blood-forming organs have previously been published in numerous unrelated journals. To the difficulties of presenting such data in publications of a varied general range, there has been added in recent years the isolation or even literal extinction of leading European periodicals. A journal making current hematologic material systematically available through one central source has become an actual necessity. Such a journal in the Western Hemisphere will therefore provide not only a clearinghouse designed expressly to answer the needs of a major professional group, but also a single vehicle assuring continuity in reporting on advances as they are made. Like its name, *Blood*, it is hoped that the new journal will have universal interest, and thus perhaps serve as a small factor in fostering better international understanding.

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