

a diseased condition of the organism. More or less of the food is taken into the body in the form of organic substances, or in the process of preparing the food they have been converted into inorganic elements. Elements of both classes, when coming in contact with the secretions of the stomach and intestines, will undergo a further change—a change which will cause them to be presented in such form as to be easily incorporated into the lymph and chyle and thus to enter the blood circulation. The escape of the phosphates, whether organic or inorganic, by any other channel, would demonstrate to us an abnormal absorptive or resorptive process.

If, on the other hand, the phosphates are derived from the destruction of phosphorus-containing tissues, we must first of all consider that the true phosphorus-containing tissues of the animal organism are the leucocytes. Thus the appearance of an abnormal amount of phosphates in the urine would demonstrate the destructive process which is going on in the polynuclear leucocytes.

Whenever there is doubt regarding the origin of the appearance of phosphates in the urine, it is rational to determine the cause of the appearance of the phosphates in this manner by a subsequent examination of the blood, and in the paper to follow I am going to demonstrate that such destructive process within the leucocytes and the insufficiency of nuclein contained within their nuclear body can be demonstrated positively and finally by the various staining methods which I now employ.

The results of blood examinations have contradicted former prevailing ideas, that because of the existence of a pale face there is always an anemia present and that iron is always indicated; that a flushed face is not always a proof of an increase of hemoglobin in the blood; that the appearance of cardiac and pulmonary symptoms is not always an indication of organic disease, but is often a symptom of chlorosis.

The examination of the blood makes a positive diagnosis of malaria. It enables us to make a proper distinction between the diagnosis of leukemia and tuberculosis. It enables us, in conjunction with the Widal test, to make a positive diagnosis in typhoid fever, and last but not least, on account of the superior knowledge of the function and composition of the leucocytes, their histological differentiation and classification enables us to corroborate the fact that the old-time prevalent idea that a so-called leucocytosis was indicative of disease, is erroneous. One of the reasons why the progress in medicine has not been more extensive may be due to the fact that the universal custom of our medical colleges to accustom the student of medicine to the systematic teaching in the hands of one teacher is being adhered to. This process more or less involves the handing down from one generation to another of the ideas of one man to another, while the teaching by various professors educated at various medical institutions would implant upon the active brain of the young student various teachings which would cause him to exert his best endeavors to find the cause of differentiation and derive from such studies a new line of thought and a new path.