

few maladies can be absolutely diagnosed from examination of the blood alone. That is to say, without seeing the patient and judging from the general condition, signs and symptoms, one would scarcely be justified in making a diagnosis from the blood alone even if the so-called "blood diseases" like chlorosis, pernicious anemia even leucæmia. For, after all, to diagnose the condition of chlorosis is merely to detect a symptom common to very many various diseases. In the generally accepted meaning of the term it implies a diminution of the hæmoglobin in each corpuscle, the cells themselves remaining but little altered in numbers and it matters not whether the cause be constipation, general debility, nephritis, lues or pulmonary tuberculosis. To rely upon a blood examination of this nature as a proof of mere chlorosis is to deceive oneself as to the underlying cause and very possibly to neglect some important organic disease. Without a physical examination of the various organs of the body we are utterly unable to exclude the serious organic diseases which induce a chlorotic condition of the blood.

It is further in all probability true, that even *pernicious anemia* itself is merely a symptom, the blood being gravely disturbed from some underlying causative disease, be it a gastro-intestinal infection or some form of intoxication. Although one special set of changes is often found in the blood in this disease, yet, the variations from the type are so wide and numerous that one can scarcely speak of its having a pathognomonic blood state. This is all the more true when one remembers that with the invasion of certain forms of animal parasites into the body, as also in certain forms of carcinoma one may obtain a condition of the blood exactly like that seen in well recognizable cases of pernicious anemia.

In a classical case of pernicious anemia for example, we look for a certain type of blood whose main features are, a great diminution in the red cells, which though greatly altered in shape and size, show many large ovoid forms of good color. There is a diminution of the hæmoglobin, though relatively not so great as is the corpuscular decrease hence the richer color of the cells (or in other words a high color index); lastly, one may expect to find many nucleated red cells and especially megaloblasts. Examining, however, the findings of most authorities, we learn that after all there is no necessity of having this pathognomonic condition of the blood in all cases. In fact, in a large proportion they do *not* all exist, except perhaps at a very late stage of the disease when the other features have already given evidence of the nature of the malady. In the interesting series of Dr. Billings, for example, we find in twenty cases, variations in the red