where these cells form a rather larger percentage, especially in the very young, we often get a marked lymphocytosis in such conditions as rachitis, or associated with a polynuclear leucocytosis in infectious diseases.

Resistance.—Operation not often reveals a localized abscess with local peritonitis, where the clinical symptoms are sometimes masked, and we get a low leucocyte count. This condition is associated with a failing resistance, and in these cases a differential count is often valuable; at least, it determines whether we have a true leucopenia or not.

A normal leucocyte count associated with a relative polynuclear leucocytosis indicates a severe infection with a failing resistance. In failing resistance the blood shows the following: A comparatively low leucocyte count, absence of eosinophilia, a relative polynuclear leucocytosis, probably myelocytes, the bone marrow precursions of the polynuclear leucocyte, and degeneration of the white blood cells. This condition was clearly shown in a case recently in the Toronto General Hospital. A white and a differential count was taken on a patient with acute lobar pneumonia. Shortly before death the whole count was 15,000. The differential count showed an absence of eosinophilia, a relative polynuclear leucocytosis, presence of myelocytes, and marked degeneration, which was indicated by the fusion of the granules in the polynuclear, with fragmentation of the non-granular leucocytes. All cases of failing resistance do not show all the above factors, but one or more are usually present, making it possible for a diagnosis.

I have not attempted in this paper to describe the character of the leucocytosis in the different diseases, but have tried to bring out the factors which affect our count, and to point out the relationship of the eosinophile with the degree of infection and its significance in prognosis. However, I would like to mention a few observations made while in the clinical laboratory of the hospital, in studying the blood in typhoid. In typhoid we get a true leucopenia. Of some twenty cases where a white blood count was made and a positive widal reaction obtained, only one case showed a count over 8,000; 20 per cent. were below 4,000; 33 per cent. below 5,000; 60 per cent. below 6,000; 80 per cent. below 7,000; and 95 per cent below 8,000. The one patient giving a count above 8,000 was one sent into the hospital as a case of puerperal sepsis. This low count is obtained quite early in the disease before the widal reaction in the greater majority of cases. This low leucocyte count, combined with a history of continued high temperature, with a pulse below