

found in definite focal areas, in certain pathological conditions, without any definite relative increase in the circulating blood.

*Degeneration.*—A point often overlooked in the study of the white blood corpuscles in pathological leucocytosis is degeneration. This is always well marked in severe, often prolonged toxemia, with probable failing resistance. In these cases we often get large percentages of both granular and non-granular forms, in which either a lack of granules or a disappearance or fusion of these, and a breaking down of the normal histological characteristics of the cells exists. This point should more often be taken into account, as it is certainly an evidence of active leucocyte destruction.

For clinical purposes we may class all forms of leucocytosis into two groups, Physiological and Pathological.

*Physiological Leucocytosis.*—We may divide physiological leucocytosis into:

1. Digestive leucocytosis.
2. Leucocytosis of pregnancy.
3. Leucocytosis of newborn.
4. Leucocytosis due to thermal and mechanical influences.

*Pathological Leucocytosis.*—

1. Part hemorrhage leucocytosis.
2. Leucocytosis in cachectic and malignant conditions.
3. Drug leucocytosis.
4. Toxic leucocytosis.
5. Inflammatory and infection leucocytosis.
6. Ante-mortem leucocytosis.

*Physiological Leucocytosis.*—Digestive leucocytosis.—In a normal individual, after a full meal, the increase of white cells is about 33 per cent. (Reider). This increase begins one hour after the ingestion of food, and the maximum is obtained in from three to four hours, followed by a gradual decline. This condition varies somewhat in different normal individuals, and in different diet. Proteid diet produces a more decided leucocytosis than a vegetable or fat diet. As to the character of the leucocytosis, we get a moderate lymphocytosis followed by a mixed and finally a granular or polynuclear leucocytosis. Marked mention is generally made of the lymphocytosis of digestion. To my mind, this is not justified. In working on the guinea-pigs in conjunction with Dr. Nasmith, we were able to show from numerous counts, extended over a period of time, that the greatest leucocytosis was the polynuclear; that although we had an absolute lymphocytosis throughout, the relative lymphocytosis was not really marked, and is not the essential factor.