

Even though it be not possible at present to identify the lymphocyte coming from a lymph-node, that from the spleen, that from the endothelium of the capillaries of any part of the circulation, it will be the aim of the clinical pathologist to rectify this defect of knowledge so that he can recognize other lymphoid cells, including those liberated into the blood stream during the metastatic cycle of tumors. Furthermore, the recognition of abnormal or degenerating cells may prove of profound value to the clinician.

(2) *The special morphological characters of each cell-form.*

The means of identification of a cell are: size of cell compared with red blood cells; the shape; the relative proportions existing between the cell-body and the nucleus; reaction of each to staining reagents; the structure of each; the presence of nucleoli and their characters. The characters which go to indicate the age of a cell have also to be borne in mind—degree of basicity of nucleus, increasing amount of cell-body as compared with the nucleus as age advances.

The lymphocyte forms under consideration all agree in having simple nuclei and in having a basophile cell-body without a granulation visible by the use of stains in vogue previous to the Romanowsky age. The cells have had the following synonymous terms applied to them: mononuclear leucocytes, agranulocytes, spongocytes.

(a) Small lymphocytes: This is a small round cell with a dark reddish-violet nucleus enclosed in a concentric film of non-granular pale-blue cytoplasm. Within the nucleus is a nucleolus which is eccentric in position. There are sometimes a few azure granules visible, especially at one spot. The cell is of about the size of a red blood-cell, but never larger.

(b) Leucocytoïd lymphocyte: This cell resembles the preceding save that the cell-body is decidedly more conspicuous, but the nucleus is eccentric. The nucleus is not as large as in the preceding case, but the cell as a whole is larger. This cell is an older form.

(c) Lymphocyte with reniform nucleus: This cell is exactly similar to the type (a), but the nucleus shows a slight dimple on one side, the cytoplasm against which is decidedly paler in staining power.

(d) Meso-lymphocyte: The characters are similar to those of (a), but the cell is distinctly larger, though smaller than type (e). The nuclear character of dense structure and deep staining power is present here also. The markings within the nucleus are characteristic—polygonal masses drawn out at their angles into filamentous structures which join with those of their fellows.