

Report of the Committee on Histopathological Criteria Contributing to Staging of Hodgkin's Disease

Henry Rappaport (Chairman), Costan W. Berard, James J. Butler, Ronald F. Dorfman, Robert J. Lukes, and Louis B. Thomas

University of Chicago, Chicago, Illinois 60637 [H. R.]; National Cancer Institute, NIH, Bethesda, Maryland 20014 [C. W. B., L. B. T.]; The University of Texas, M. D. Anderson Hospital and Tumor Institute, Houston, Texas 77025 [J. J. B.]; Stanford University, Stanford, California 94305 [R. F. D.]; and the University of Southern California, Los Angeles, California 90033 [R. J. L.]

This report summarizes the deliberation of the Committee on Histopathological Criteria Contributing to Staging of Hodgkin's Disease. Special attention was devoted to certain difficulties in classification and to the criteria for the diagnosis of Hodgkin's disease in liver and bone marrow biopsies from patients with histologically established Hodgkin's disease. The problem of the clinical and biological significance of vascular invasion was also briefly discussed.

Classification

The Rye modification (7) of the classification of Lukes and Butler (5) has proved its usefulness and practicality since, in several independent studies, it has correlated well with both clinical stage and prognosis. The following difficulties in classification still exist, however (4).

Cellular Phase of Nodular Sclerosis. Recognition of certain cases of nodular sclerosis is rendered difficult when the pattern is nodular and collagen is scant, yet the nodules contain numerous "lacunar cells."¹ Such cases suggest that there may be a cellular phase of nodular sclerosing Hodgkin's disease (2, 3, 6). In some of these cases in which lacunar cells were present but fibrosis was lacking, the classical features of nodular sclerosis became apparent in sequential biopsies (10). In other patients with fully developed nodular sclerosis in the cervical lymph nodes, the sections of spleen or abdominal nodes removed at laparotomy revealed only cellular nodules with lacunar cells but no demonstrable fibrosis (2, 10). The converse was also observed. Both these observations suggest that biopsies in which nodular pattern and conspicuous lacunar cells are seen but no collagenous bands are evident should be considered as highly suggestive of nodular sclerosis. Supportive evidence of this subclassification should be sought.

Nodular Sclerosis Limited to Part of the Section. When only a portion of the biopsy section is typical of nodular sclerosis, while the remaining tissue is devoid of either nodularity or bands, the case should be classified as nodular sclerosis. This is

¹The lacunar cell has been described by Lukes and Butler (5) as an "unusually large variant of the Reed-Sternberg cell which has abundant, pale, eosinophilic cytoplasm with well-defined cellular borders that present the appearance of a Reed-Sternberg cell situated in a lacuna-like space."

true even when the area of nodular sclerosis is small. The classification of nodular sclerosis takes precedence over other histological types which appear to be present in the same section.

Lymphocytic Predominance. In the diagnosis of Hodgkin's disease with lymphocytic predominance, the histological criteria include not only abundance of well-differentiated lymphocytes but also a scarcity of Sternberg-Reed cells and of mononuclear cells with corresponding nuclear features. The scarcity of these cells is as significant for the classification of lymphocytic predominance as is the abundance of lymphocytes.

Criteria for the Diagnosis of Hodgkin's Disease in Liver Biopsies from Patients with Histologically Proven Hodgkin's Disease

The presence in portal triads of cellular infiltrates which are characteristic of Hodgkin's disease but do not contain typical Sternberg-Reed cells poses a serious problem for staging. The amount of tissue available for study is relatively small and Sternberg-Reed cells can be expected in such infiltrations only when they are numerous. When they are not evident in the available section, serial sections should be cut and reviewed. If typical Sternberg-Reed cells cannot be found even in serial sections, mononuclear cells with the nuclear features of Sternberg-Reed cells in one of the characteristic cellular environments of Hodgkin's disease should be regarded as indicative of hepatic involvement. The presence of atypical histiocytes or "reticulum cells" which fall short of these criteria but are present in one of the characteristic cellular environments of Hodgkin's disease should be reported as "suggestive of Hodgkin's disease." The clinician should utilize this information in conjunction with all other available data in arriving at a decision as to whether such patients should be considered as having Stage III or Stage IV disease. So-called nonspecific infiltrates should not be regarded as suggestive of Hodgkin's disease. Caution is indicated in patients in whom the infiltrates are relatively extensive or massive. Such infiltrates in the presence of Hodgkin's disease elsewhere are suspicious of liver involvement, yet in the absence of at least atypical histiocytes (reticulum cells) an unequivocal histological diagnosis cannot be made.

Criteria for the Diagnosis of Hodgkin's Disease in Bone Marrow Biopsies from Patients with Histologically Proven Hodgkin's Disease

The criteria used for the diagnosis of Hodgkin's disease in bone marrow are similar to those discussed for the liver. An additional problem, however, is presented by focal or diffuse areas of fibrosis which contain only the inflammatory cells characteristic of Hodgkin's disease but in which Sternberg-Reed cells are not demonstrable. As with liver biopsies, Sternberg-Reed cells should be searched for in serial sections. Where this is unsuccessful, the microscopic picture described above, when found in an untreated patient with histologically proven Hodgkin's disease, should be regarded as strongly suggestive of marrow involvement by Hodgkin's disease.

Vascular Invasion

Patients in whom vascular invasion is observed in sections of lymph node biopsies, spleens, or both, appear to exhibit a greater prevalence of disseminated, and particularly extranodal, disease than those in whom this feature cannot be demonstrated (8, 9). Whether or not this means that the invaded veins are actually the source of the neoplastic cells which have disseminated has not been established and is difficult to ascertain, since dissemination by the blood stream may also originate from cells that have reached the venous system via the thoracic duct (1). The routine use of elastic stains on sections from diagnostic biopsies is recommended in

order to confirm the correlation of vascular invasion with a prevalence of extranodal and disseminated disease.

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