Chapter 10

MANAGEMENT OF EARLY STAGE HODGKIN’S LYMPHOMA

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1. INTRODUCTION

The best treatment of early stage Hodgkin lymphoma has been controversial because of the success achieved with several approaches. These include large field radiation therapy alone, the combined modalities of chemotherapy and radiation therapy, and more recently, chemotherapy alone. Current clinical trials are attempting to reduce toxicity while continuing to achieve excellent results. This chapter will review the evolution of treatment for early stage Hodgkin lymphoma and will describe the different approaches that have been developed.

2. STAGING

Advances in the treatment of early stage Hodgkin lymphoma were greatly aided by the development of precise definition of the sites of involvement. This was particularly important when the extended field radiation therapy approach was developed, the systemic use of what is essentially a regional treatment, which will be described. The current staging classification was established by the Ann Arbor Workshop in 1971. There is both clinical staging (CS), which consists of all staging procedures short of staging laparotomy, and pathologic staging (PS), which refers to the findings at staging laparotomy during which liver biopsies, splenectomy and excisional biopsies of retroperitoneal nodes are performed. The surgeon
makes an attempt to biopsy nodes that are suspicious on lymphangiogram. Some centers have also performed open bone marrow biopsies from the iliac crest. Staging laparotomies are performed infrequently at the present time, since fewer patients are treated with radiation therapy alone and more with systemic treatment with chemotherapy alone or in combination with radiation therapy.

The Ann Arbor classification divides Hodgkin lymphoma into four stages: Stage I refers to disease limited to a single lymph node or lymph node group. Stage II refers to disease in two or more noncontiguous lymph node groups and/or spleen on the same side of the diaphragm. Stage III refers to disease in two or more lymph node groups and/or spleen on both sides of the diaphragm. Stage IV refers to disease in extranodal sites, usually lung, liver, bone or bone marrow, and more rarely other sites. Extranodal involvement by extension from lymph node disease to such sites as the lung, bone, pleura or skin may occur in stages IE and is not considered to increase the stage to IV. Such disease is designated by a subscript E (IE, IIE, IIIE).

For each stage the absence of systemic symptoms is designated by the subscript “A,” while the presence of unexplained fevers to 38° C or higher, night sweats and/or weight loss or greater than 10% over 6 months are designated by a “B” subscript. In general the prognosis worsens with higher stage, and, within each stage, the presence of B symptoms carries a worse prognosis than absence of such symptoms (A). A mediastinal mass >1/3rd of the thoracic diameter on chest x-ray or lymph node disease greater than 10 cm. is defined as “bulky;” a suffix X is added to the numerical stage if such disease is present (e.g., IxA, IxB, IIxA, IIxB, IIIxA, IIIxB).

Staging procedures include chest x-ray, computerized tomography (CT) of the chest, abdomen and pelvis with oral and intravenous contrast, complete blood counts with platelet and differential counts, bone marrow aspiration and biopsy, serum liver biochemistries including alkaline phosphatase and 5’ nucleotidase, and erythrocyte sedimentation rate. The latter test has been shown to carry prognostic significance. Computerized tomography of the abdomen and pelvis will show enlarged retroperitoneal and pelvic lymph nodes that are involved by disease. Occasionally, there may be nodes involved by disease, which are not enlarged. A bipedal lymphangiogram may show an abnormal filling pattern of contrast in lymph nodes that are involved but are only borderline or not enlarged. Lymphangiograms are labor intensive and require skilled, dedicated personnel and are infrequently necessary today with modern imaging procedures. Mesenteric nodal involvement at presentation in Hodgkin lymphoma is much less common than in the non-Hodgkin lymphoma.

If there are masses in the liver on CT scan or liver-spleen scintigram or gross abnormalities of serum liver biochemical studies, a liver biopsy should