Staging Laparotomy and Hodgkin's Disease

Dear OncoLink "Ask the Experts,"

My 25-year-old daughter has been diagnosed with Hodgkin's Disease stage IIA. This was determined by biopsy and physical exam. The blood test, bone marrow extraction, CT-scans and x-rays are scheduled next week. Her oncologist has already planned for a laparotomy. I don't understand why, with so little information! In all the readings from your site and others, I have not been able to find definitive information on when a laparotomy is necessary. It seems very drastic, for so little gain. Can you help?

Also, is the bone marrow extraction a normal procedure in diagnosis and staging of Hodgkin's?

A very worried and distraught father,
L.P.

Li Liu, MD, OncoLink Editorial Assistant, responds:

Dear LP,

Thank you for your interest and question.

Dr. Glatstein at Stanford University originally reported on staging laparotomy in the late 1960s. It remains the most precise method to determine abdominal involvement in patients presenting with supradiaphragmatic Hodgkin's disease. However, this is not without cost. Staging laparotomy and splenectomy requires 5 to 7 days hospitalization with the risks of possible post-operative complications. The routine use of staging laparotomy is controversial but is recommended if the results are used to determine treatment strategy. Many studies have been done on this topic. Here are three such studies with their results.

A study by Leibenhart et al. followed 915 patients with clinical stage I and II Hodgkin's disease limited to sites above the diaphragm. These patients underwent laparotomy and splenectomy. Approximately 9% of female patients with stage IIA disease, three or fewer sites of clinical involvement, and age younger than 27 years had disease identified below the diaphragm after laparotomy and splenectomy. This data suggests that similar patients may be candidates for radiation therapy alone without staging laparotomy.

A second study from the Harvard Joint Center for Radiation Therapy looked at factors associated with an increased risk of disease below the diaphragm. They determined that male gender, B symptoms, and two or more supradiaphragmatic sites of disease were factors that increased the risk of the likelihood that disease would be present below the diaphragm. Female patients with stage IIA disease had a 22% frequency of occult (hidden) abdominal involvement.
In a third study the European Organization for the Research and Treatment of Cancer (EROTC) H6F trial looked at patients with clinical stage I and II Hodgkin's disease. Patients were divided into two groups. One group was treated with subtotal nodal irradiation. The other group had a staging laparotomy plus treatment adaptation (adjuvant chemotherapy in the 33% with negative laparotomy). Disease-free survival favored staging laparotomy group, but overall survival was the same for both groups.

Bone marrow aspiration and biopsy are used as standard procedures in diagnosis and staging of Hodgkin's disease, unless the patient has clinical stage IA, favorable IIA, or IV disease.

You and your daughter should discuss the management of her disease with her Medical Oncologist.

Li Liu, MD 11/1/01
No