

Abnormal Positron Emission Tomography (PET) Scan Secondary to the Use of Hematopoietic Growth Factors

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A 61-year-old woman presented with postprandial epigastric pain. She was found to have a gastric mass, biopsy of which revealed diffuse large B-cell non-Hodgkin lymphoma. A complete staging work-up, including a positron emission tomography (PET) scan, showed the tumor was confined to the lesser curvature of the stomach (Figure 1). The final diagnosis was stage IAE primary gastric lymphoma. After receiving six cycles of a combination chemotherapy consisting of rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone, she achieved a complete response. Two more cycles of chemotherapy were given. Twelve and eleven days prior to the second PET scan, she received subcutaneous injections of erythropoietin-alfa (60,000 units) and pegfilgrastim (6 mg), for chemotherapy-induced anemia and neutropenia, respectively. A post treatment PET scan showed resolution of the increased 18F-fluorodeoxyglucose (FDG) uptake in the stomach. However, there was also diffusely intense FDG uptake in the bone marrow (Figure 2). This was subsequently felt to be due to the recent use of hematopoietic growth factors. A repeat PET scan six months later confirmed her continued remission.

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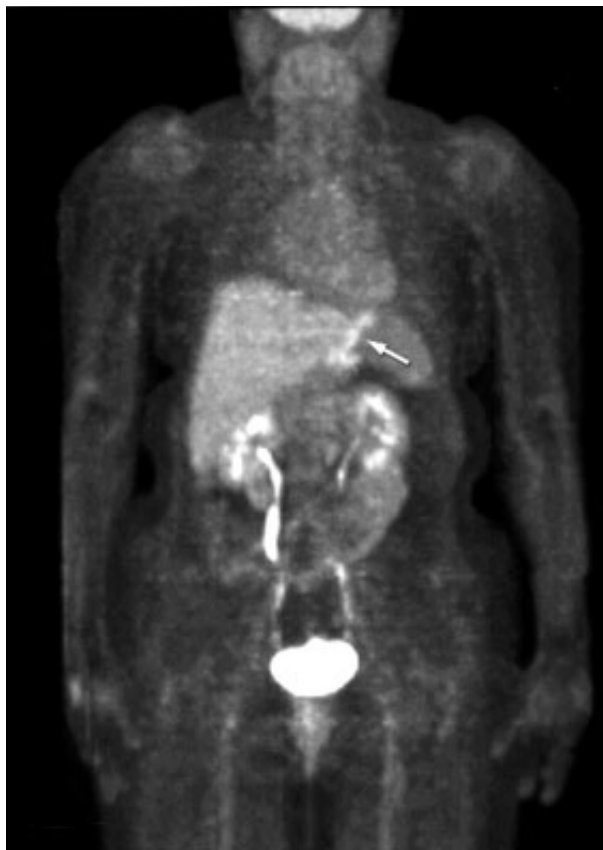


Figure 1.



Figure 2.