



## Bone Marrow Biopsy Adds Little to PET/CT Staging of Hodgkin's

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**For patients with treatment-naive Hodgkin's lymphoma staged using [<sup>18</sup>F]fluorodeoxyglucose positron emission tomography/computed tomography, routine bone marrow biopsy has little or no therapeutic consequence, according to research published online Nov. 13 in the *Journal of Clinical Oncology*.**

WEDNESDAY, Nov. 14 (HealthDay News) -- For patients with treatment-naive Hodgkin's lymphoma (HL) staged using [<sup>18</sup>F]fluorodeoxyglucose positron emission tomography/computed tomography (PET/CT), routine bone marrow biopsy (BMB) has little or no therapeutic consequence, according to research published online Nov. 13 in the *Journal of Clinical Oncology*.

Tarec Chistoffer El-Galaly, M.D., of Aarhus University Hospital in Denmark, and colleagues conducted a retrospective study involving 454 patients with newly diagnosed HL to determine whether BMB adds useful information to PET/CT staging.

Of the patients, 18 percent had focal skeletal PET/CT lesions and 6 percent had positive BMB. Among patients assessed as having stage I to II disease by PET/CT staging, the researchers found that none were positive for BMB. Five patients assessed as being stage III before BMB were upstaged by BMB, but none of the patients were allocated to a different treatment based on the results of BMB. For identification of positive and negative BMBs, focal skeletal PET/CT lesions had a sensitivity of 85 percent and a specificity of 86 percent; the sensitivity and specificity for BMB results were 28 and 99 percent, respectively.

"To the best of our knowledge, this is the largest study to date examining the value of BMB in patients with HL who are undergoing PET/CT staging," the authors write. "The added diagnostic value from routine BMB was minimal, and positive BMB findings implied upstaging in only five patients from stage III to stage IV disease of a total of 454 included patients."



## ABSTRACT

### **Routine Bone Marrow Biopsy Has Little or No Therapeutic Consequence for Positron Emission Tomography/Computed Tomography–Staged Treatment-Naive Patients With Hodgkin Lymphoma**

Tarec Christoffer El-Galaly, et al, JCO November 13, 2012 JCO.2012.42.4036

**Purpose** To investigate whether bone marrow biopsy (BMB) adds useful information to [<sup>18</sup>F]fluorodeoxyglucose (FDG) positron emission tomography/computed tomography (PET/CT) staging in patients with Hodgkin lymphoma (HL).

**Patients and Methods** Newly diagnosed patients with HL undergoing a pretherapeutic staging that encompasses both PET/CT and BMB were included in this retrospective study. The pattern of skeletal FDG uptake was categorized as uni-, bi-, or multifocal ( $\geq$  three lesions). Clinical stage, risk assessment, and treatment plan were determined with and without the contribution of BMB results according to the Ann Arbor classification and the guidelines from the German Hodgkin Study Group.

**Results** A total of 454 patients with HL were included of whom 82 (18%) had focal skeletal PET/CT lesions and 27 (6%) had positive BMB. No patients with positive BMB were assessed as having stage I to II disease by PET/CT staging. BMB upstaged five patients, assessed as being stage III before BMB; none of the 454 patients would have been allocated to another treatment on the basis of BMB results. Focal skeletal PET/CT lesions identified positive and negative BMBs with a sensitivity and specificity of 85% and 86%, respectively. The positive and negative predictive values of focal skeletal PET/CT lesions for BMB results were 28% and 99%, respectively.

**Conclusion** A consistent finding of this study was the absence of positive BMBs in PET/CT-assessed stage I to II disease. The omission of staging BMB would not have changed the risk assessment or treatment strategy in this cohort of 454 newly diagnosed patients with HL.