

LETTER TO THE EDITOR

The Proportion of Patients with Metastatic Non-small Cell Lung Cancer Potentially Eligible for Treatment with Bevacizumab: A Single Institutional Survey

To the Editor:

Lung cancer is the leading cause of cancer-related mortality in the United States. Non-small cell lung cancer (NSCLC) accounts for more than 85% of newly diagnosed lung cancers.¹ Nearly 40% of patients with NSCLC present with metastatic disease.² Chemotherapy for advanced stage NSCLC provides only modest improvement in the overall survival.^{3,4} Addition of bevacizumab, an antibody to vascular endothelial growth factor, to paclitaxel and carboplatin improved survival in a selected group of patients with advanced NSCLC in the Eastern Cooperative Group Oncology (ECOG) study.⁵ However, patients with a significant history of hemoptysis, squamous histology, or

brain metastases were excluded from the ECOG study. Moreover, patients on anticoagulant therapy and those with poor performance status were also not enrolled in this study. It is unclear what proportion of patients with metastatic NSCLC is eligible to receive therapy with bevacizumab.

We conducted a retrospective analysis of 1553 consecutive patients with stage IV metastatic NSCLC diagnosed at Washington University/Alvin J. Siteman Cancer Center from October of 1991 and December of 2005 to estimate the proportion of patients who would be eligible for therapy with bevacizumab as defined by the ECOG study referred to earlier. Because the history of “significant” hemoptysis (as defined by the ECOG study) was not recorded, we focused our attention on two major issues: squamous histology and the presence of brain metastasis at the time of initial presentation. Of the 1553 patients with stage IV NSCLC, 378 patients (24.3%) had squamous cell histology and 467 patients (30.1%) had brain metastasis at presentation. A total of 738 patients (47.5%) had a squamous histology and/or presented with brain metastasis and hence did not meet the guidelines for treatment with anti-vascular endothelial growth factor therapy. The actual proportion of patients with advanced stage NSCLC who would be eligible for bevacizumab is likely to be less than 52% because we did not take into consideration the other risk factors (pres-

ence of significant history of hemoptysis, concurrent anticoagulation therapy, and performance status) that might preclude the use of bevacizumab.

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