Less toxic combination of erlotinib and bevacizumab is effective non-small cell lung cancer patients

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The standard treatment for patients with advanced non-small cell lung cancer (NSCLC) is a combination of two old-fashioned cytotoxic chemotherapy drugs. The combination, however, comes with substantial toxicity. Now, Fox Chase Cancer Center researchers report that a combination of two molecularly-targeted agents may provide similar therapeutic benefit with less toxicity.

"These results seem to be better than standard of care," says Hossein Borghaei, DO, medical oncologist at Fox Chase, who will present the results at the 2011 Annual Meeting of the American Society of Clinical Oncology on Saturday, June 4. "Of course, the problem with a phase II trial always is that the patients tend to be a select patient population. But when you look at the numbers, the patients appear to be benefiting from the treatment. They stay on treatment longer and the time to progression on average was a little bit better. And we don't have a lot of toxicities, like major hair loss or nausea, and we don't have a lot of neutropenia or anemia."

"So overall it looks like a well tolerated regimen and it appears to be an effective front-line therapy in this patient population," he says.

Until recently, clinicians assumed that older patients were more likely to suffer from serious toxicities associated with standard chemotherapy. Therefore, Borghaei's team focused their current study on patients 65

years and older, enrolling 33 patients with a median age of 74 years. All patients had previously untreated, advanced NSCLC. Patients received standard dose erlotinib (a small molecule inhibitor of the epidermal growth factor receptor) and bevacizumab (an antibody that blocks the vascular endothelial growth factor pathway) every 21 days until patients either progressed or stopped treatment due to adverse events.

Six patients remain on therapy and have received 4 to 40 cycles of treatment. Of the 24 patients off therapy, the median number of cycles received was 4, with a range of one to 40. The estimated progression-free survival for all patients is 6.6 months. The estimated one-year survival is 56.6%, with 12 patients remaining alive, and the estimated median overall survival is 14.1 months.

"With standard chemotherapy we can only give four to six cycles," Borghaei says. "But with this biologic regimen we can continue therapy because there is less toxicity. They are on continuous drugs, which might be one reason that they appear to have longer progression free survival. We have to wait for the final data and analyze it before we know — and the big test would be a head-to-head phase III trial with chemotherapy."

The most common serious adverse events in the trial were grade 3 hypertension, which occurred in five patients, and grade 3 rash, which occurred in three patients. Additionally, the following grade 3 toxicities affected one patient each, fatigue, anorexia, neutropenia with infection, bowel perforation, and abnormal blood tests. Two patients had grade 3 diarrhea and one patient had grade 4 diarrhea.

Provided by Fox Chase Cancer Center

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