Afatinib benefits lung cancer patients whose cancer progressed after treatment with EGFR inhibitors

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Lung cancer patients who have already been treated with the EGFR inhibitors erlotinib or gefitinib seem to gain further benefits in terms of progression-free survival and tumor shrinkage when treated with the new drug afatinib, the results of a Phase IIb/III trial show.

At the 35th Congress of the European Society for Medical Oncology (ESMO) in Milan, Italy, Dr Vincent Miller from Memorial Sloan-Kettering Cancer Center in New York, USA, reported findings from the LUX-Lung 1 trial of afatinib in 585 patients with lung adenocarcinoma whose cancer had progressed after chemotherapy and erlotinib or gefitinib.

The participants were randomly assigned to either best supportive care plus a placebo, or supportive care plus afatinib, which is an irreversible inhibitor of two cancer-associated cell surface molecules --epidermal growth factor receptor (EGFR) and human epidermal growth factor receptor 2 (HER2).

While the results showed no significant difference in overall survival between the two groups, patients who were given afatinib saw disease progression delayed and were more likely to experience tumor shrinkage , Dr Miller said.

Median overall survival was 10.78 months for patients who received

supportive care plus afatinib, compared to 11.96 months for those receiving supportive care plus placebo. "The median overall survival for both arms was expected to be approximately five months," Dr Miller said. "The fact that it was nearly one year was unexpected."

Median progression-free survival was 3.3 months for patients administered afatinib, compared to 1.1 month in the placebo group. The disease control rate after 8 weeks of therapy was 58% in the afatinib arm, and 19% for the placebo arm. The investigator analysis saw an overall response rate of 11% in afatinib patients, compared to 0.5% for those receiving placebo plus best supportive care.

"Our study showed that adding afatinib to best supportive care improved progression free but not overall survival as compared to placebo and best supportive care in patients with advanced non-small cell lung cancer who previously received chemotherapy and either gefitinib or erlotinib," Dr Miller said.

Although the trial did not achieve its primary endpoint of extending life, this does not diminish the potential value of this drug in treating patients with this most lethal cancer killer, Dr Miller said.

"The fact that afatinib induced objective regressions in a population with no or limited treatment options, delayed progression of cancer and associated with some improvement in cancer-related symptoms cannot be minimized," said Dr Miller.

"The LUX-lung 1 randomized phase III trial demonstrates that afatinib (BIBW2992) is a very active compound in NSCLC," commented Professor Jean-Charles Soria from Institut Gustave Roussy, Paris, France.

"The lack of survival benefit may be related to the likely high

enrichment of the trial population by EGFR mutated patients with outstanding median survival times of around 11 months in the 3rd/4th line setting," Prof Soria added. Such survivals are unprecedented in NSCLC and simply highlight the intrinsic good prognosis of EGFR-mutated NSCLC patients.

Provided by European Society for Medical Oncology