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Erlotinib effective and with fewer side-effects after first-line treatment

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The targeted cancer drug erlotinib has comparable efficacy to chemotherapy, and is better tolerated, in hard-to-treat cases where a patient's cancer has progressed quickly after treatment with first-line therapy, the results of a new phase III trial show.

Dr Tudor Ciuleanu from the Institute of Oncology Ion Chiricuta, Cluj-Napoca, Romania, reported this finding from the international TITAN study at the European Multidisciplinary Conference in Thoracic Oncology (EMCTO), 24-26 February 2011, Lugano, Switzerland.

"The TITAN study is the first trial to evaluate whether erlotinib has comparable efficacy to chemotherapy for non-small cell lung cancer patients in general," Dr Ciuleanu said.

The study included only patients whose disease had progressed under first-line chemotherapy. In the clinic, around 30-40% of patients with lung cancer will see no benefit from first-line therapy and their disease will rapidly progress.

"These patients have an extremely poor prognosis and few treatment options. An effective alternative to chemotherapy is therefore very important, since chemo-related side-effects can result in further physical deterioration in patients who are already very sick," Dr Ciuleanu said.

Historically, data have shown that erlotinib was more tolerable than chemotherapy, but many physicians had assumed that erlotinib would

not be as effective in this difficult-to-treat patient population compared to chemotherapy.

The open-label study included 424 patients whose lung cancer had progressed rapidly after treatment with first-line chemotherapy. Of these, 203 were treated with erlotinib, and 221 received chemotherapy with either docetaxel or pemetrexed.

No difference in overall survival was seen between the two groups, the researchers reported. Nor was there any significant difference in progression-free survival time.

"TITAN is important because it confirms that erlotinib has comparable efficacy to chemotherapy with better tolerability, even in this population of patients with poor prognosis," Dr Ciuleanu said. "The study included a broad, unselected population, showing that patients can benefit from erlotinib regardless of their EGFR mutation status. Erlotinib therefore gives doctors an effective alternative to chemotherapy after disease progression, without chemo-related side-effects."

Serious treatment-related adverse events were seen in only 1% of patients treated with erlotinib, the researchers said, compared to 6.6% of those in the chemotherapy arm of the study.

"The likelihood of side-effects is a serious consideration for patients who are already physically unwell due to the advanced stage of their disease," Dr Ciuleanu said. "The importance of this finding is that when safety data are considered they show that the benefits associated with erlotinib can be achieved with better tolerability than chemotherapy."

Commenting on the study, which he was not involved in, Professor Jean-Paul Sculier from Institut Jules Bordet, Belgium, noted that there are currently three drugs specifically registered for second-line single-agent

treatment in advanced non-small cell lung cancer, all of which have the same impact on survival: erlotinib, pemetrexed (restricted to non-squamous histologies) and docetaxel.

"Docetaxel is no longer protected by patent, meaning it is cheaper and generics are available," he noted. "A potential advantage of erlotinib is administration in a targeted way for tumors with activating EGFR mutations, however more data are needed before the drug can be recommended with a good level of evidence in that indication."

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