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Sorafenib effective in patients with non-small cell lung cancer, but low survival rates reported

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Sorafenib was effective in patients with non-small cell lung cancer and a KRAS mutation, but survival rates were reportedly "unsatisfactory," according to data presented at the AACR-IASLC Joint Conference on Molecular Origins of Lung Cancer: Biology, Therapy and Personalized Medicine, held Jan. 8-11, 2012.

Patients with lung cancer and a KRAS mutation are believed to have a poor prognosis and may not benefit from treatment with epidermal growth factor receptor tyrosine kinase inhibitors, according to study author Wouter W. Mellema, M.D., a doctoral candidate at VU University Medical Center in Amsterdam.

"There is a great need for targeted treatment options for patients with non-small cell lung cancer (NSCLC) with a KRAS mutation," he said.

In the phase 2, multicenter study conducted in the Netherlands, researchers assigned 57 patients with NSCLC and a KRAS mutation to 400 mg of sorafenib twice daily.

At six weeks, Mellema and colleagues reported a rate of no progression of 52.6 percent. Fifteen patients stopped treatment before six weeks — 10 of whom stopped due to clinical progression. Median progression-free survival was 2.3 months, and median overall survival was 5.3 months. The researchers reported that 14 patients are still alive.

"Sorafenib could be a useful drug in this patient population by inhibiting the growth-stimulating signal of the RAS protein," Mellema said. "However, although sorafenib showed relevant activity, the outcome was unsatisfactory."

Mellema and his team had conducted a pilot study in 10 patients, which showed "very promising results. Unfortunately, the results of the phase 2 study were less optimistic. We expected that progression-free survival and overall survival would be better [in the phase 2 study]," Mellema said.

He suggested that the KRAS mutation causes early progression by stimulating cell growth through an alternative pathway. "Future studies currently in preparation in our group should focus on simultaneous inhibition of these pathways," he said.

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