Pazopanib shows better quality-of-life in advanced kidney cancer

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Two oral targeted drugs approved for metastatic kidney cancer worked equally well, but one proved superior in tolerability, according to results of a large international clinical trial led by researchers at Dana-Farber Cancer Institute.

Pazopanib (Votrient) and sunitinib (Sutent), both recently approved as first-line treatments for advanced renal cell cancer, had similar benefits in delaying progression of the disease, but the safety profile and many measures of quality of life favored pazopanib, suggesting a potential shift in standard of care in metastatic kidney cancer.

The study's findings are reported in the August 22 issue of the *New England Journal of Medicine*.

"Tolerability is a big part of the equation when drugs work equally well," said Toni Choueiri, MD, director of the Kidney Cancer Center at Dana-Farber/Brigham and Women's Cancer Care (DF/BWCC). "If patients are going to live the same life span, why not use the one that's better tolerated?"

Choueiri, who is also an associate professor of medicine at Harvard Medical School, is senior author of the report of a phase 3 trial of 1,100 metastatic kidney cancer patients treated at multiple centers in 14 countries. Robert Motzer, MD, of Memorial Sloan-Kettering Cancer Center, is the first author.

The trial, sponsored by GlaxoSmithKline Pharmaceuticals, which manufactures pazopanib, compared the efficacy, safety and tolerability of pazopanib and sunitinib, two similar tyrosine kinase inhibitors that hinder cancer cell growth by disrupting several biological pathways. Both drugs target multiple cell-surface tyrosine kinase receptors, including receptors for vascular endothelial growth factor (VEGF), a protein that cancer cells co-opt to form new blood vessels to support tumor growth.

The Food and Drug Administration approved sunitinib in 2006 and pazopanib in 2009 to treat advanced kidney cancer, which is notoriously resistant to conventional chemotherapy. The drugs previously demonstrated improved progression-free survival compared to Interferon or placebo; the current trial tested them head-to-head.

The median time before the cancer progressed was comparable: 8.4 months for pazopanib and 9.5 months for sunitinib. Median overall survival was also similar – 28.4 months for patients taking pazopanib and 29.3 months for sunitinib.

Pazopanib patients had a higher rate of liver enzyme abnormalities, in some cases leading to discontinuation of the drug. However, pazopanib patients had lower rates of blood cell abnormalities, hand and foot soreness, mouth sores, low thyroid activity, nausea, and fatigue.

Most important, pazopanib was rated superior to sunitinib on 11 or 14 measures of quality of life. In addition, pazopanib patients had fewer phone consultations with providers and visited emergency rooms less frequently – a difference the researchers said is significant because it could influence cost-benefit comparisons.

Provided by Dana-Farber Cancer Institute