Cabozantinib Most Effective Treatment for Metastatic Papillary Kidney Cancer

PORTLAND, OR – In a SWOG Cancer Research Network trial that put three targeted drugs to the test, the small molecule inhibitor cabozantinib was found most effective in treating patients with metastatic papillary kidney cancer – findings expected to change medical practice.

These findings will be presented at ASCO’s virtual 2021 Genitourinary Cancers Symposium on Feb. 13, 2021 at 1 p.m. ET. The findings will be simultaneously published in The Lancet.

There are currently no effective treatments for metastatic papillary kidney cancer, or metastatic pRCC, a rare subtype of kidney cancer. One study of 38 patients found that the average survival rate was eight months after diagnosis.

Sumanta Pal, MD, clinical professor of medical oncology at City of Hope, a comprehensive cancer center, and an investigator at SWOG, a cancer clinical trials group funded by the National Cancer Institute (NCI), part of the National Institutes of Health (NIH), said there is hope for metastatic papillary kidney cancer patients. Mutations in the MET gene are a hallmark of this type of cancer, and there are new drugs that target the MET gene among other important signaling pathways. Pal decided to put three of them to the test against the current standard treatment, sunitinib, a receptor tyrosine inhibitor.

In his study, S1500, Pal studied 147 eligible patients with papillary kidney cancer, most of whom had not received any prior treatment. Patients were randomly assigned to one of four treatment groups – those who took sunitinib and those who took one of the three MET target drugs – cabozantinib, crizotinib, and savolitinib.

Pal and his team wanted to see how long it would take patients’ cancer to spread or return, a measure known as progression-free survival. What they found: Patients receiving sunitinib went
a median of 5.6 months before their cancer progressed; patients receiving savolitinib and crizotinib fared much worse overall. But cabozantinib, which inhibits VEGF receptors and AXL in addition to MET, gave patients a median of 9.2 months before their cancer progressed. In addition, 23% of patients had a significant reduction in the size of their tumor with cabozantinib. In contrast, only 4% of patients saw this kind of tumor response with sunitinib.

“The magnitude of the response was surprising,” Pal said. “We still have a long way to go to help make patients’ lives longer and better, but we do have a new standard treatment for these rare cancer patients. This result is a testament to SWOG and to City of Hope, who have the motivation and expertise needed to successfully conduct rare cancer clinical trials.”

Building on the momentum of S1500, SWOG will lead the next pivotal trial in papillary kidney cancer, one with a focus on the potential synergy between targeted treatments like cabozantinib and immune therapy. Pal will lead that study with SWOG investigator Dr. Benjamin Maughan at Huntsman Cancer Institute at the University of Utah.

SWOG 1500, also called PAPMET, was sponsored by NCI, designed and led by the SWOG Cancer Research Network under the leadership of Dr. Pal, and conducted through the NCI’s National Clinical Trials Network.

S1500 was also funded by the NIH through NCI grants CA180888, CA180819, CA180820, CA180821, CA180863, and CA180868; and in part by AstraZeneca plc/AB, Exelixis, Inc., and Pfizer, Inc. The companies provided savolitinib, cabozantinib, crizotinib, and sunitinib, respectively, for the trial under each company’s Cooperative Research and Development Agreement with the NCI.

“NCI's drug development program in the Cancer Therapy Evaluation Program facilitated the collaborations between pharmaceutical companies as well as collaborations between companies and SWOG investigators to make this trial possible. We are proud to have played a part in defining which of these therapies is most effective for patients with papillary renal cell carcinoma,” said John Wright, MD, PhD, the associate branch chief of CTEP’s Investigational Drug Branch, and the NCI's medical monitor for the study.

Pal’s S1500 study team includes Catherine Tangen, DrPH, of the SWOG Statistics and Data Management Center; Ian M. Thompson, Jr. MD, of CHRISTUS Santa Rosa; Naomi Balzer-Haas, MD, of Abramson Cancer Center; Daniel J. George, of Duke University Medical Center; Daniel Y.C. Heng, MD, of Tom Baker Cancer Center; Brian Shuch, MD, of Institute of Urologic Oncology at UCLA; Mark Stein, MD, of Columbia University; Maria Tretiakova, MD, PhD, of University of Washington; Peter Humphrey, MD, of Yale University; Adebowale Adeniran, MD, of Yale University; Vivek Narayan, MD, MS, of Abramson Cancer Center; Georg A. Bjarnason, MD, of Sunnybrook Odette Cancer Centre; Ulka Vaishampayan, MBBS, of Wayne State University and University of Michigan; Ajjai Alv, MBBS, of University of Michigan; Tian Zhang, MD, of Duke Cancer Research Institute; Scott Cole, MD, of Oklahoma Cancer Specialists and Research Institute; Melissa Plets, MS, of the SWOG Statistics and Data Management Center; John Wright, MD, PhD, and Primo N. Lara, Jr. MD, of UC Davis Comprehensive Cancer Center.
**SWOG Cancer Research Network** is part of the National Cancer Institute’s National Clinical Trials Network and the NCI Community Oncology Research Program, and is part of the oldest and largest publicly-funded cancer research network in the nation. SWOG has nearly 12,000 members in 47 states and eight foreign countries who design and conduct clinical trials to improve the lives of people with cancer. SWOG trials have led to the approval of 14 cancer drugs, changed more than 100 standards of cancer care, and saved more than 3 million years of human life. Learn more at [swog.org](http://swog.org).

**City of Hope** is an independent biomedical research and treatment center for cancer, diabetes and other life-threatening diseases. Founded in 1913, City of Hope is a leader in bone marrow transplantation and immunotherapy such as CAR T cell therapy. City of Hope’s translational research and personalized treatment protocols advance care throughout the world. Human synthetic insulin, monoclonal antibodies and numerous breakthrough cancer drugs are based on technology developed at the institution. AccessHope™, a wholly owned subsidiary, was launched in 2019 and is dedicated to serving employers and their health care partners by providing access to City of Hope’s exceptional cancer expertise. A National Cancer Institute-designated comprehensive cancer center and a founding member of the National Comprehensive Cancer Network, City of Hope is ranked among the nation’s “Best Hospitals” in cancer by U.S. News & World Report. Its main campus is located near Los Angeles, with additional locations throughout Southern California and in Arizona. For more information about City of Hope, follow us on Facebook, Twitter, YouTube or Instagram.

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