



PRESS RELEASE

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STUDY EXAMINES KIDNEY INJURY IN PATIENTS TAKING IMMUNOTHERAPY CANCER MEDICATIONS

Acute kidney injury observed in 17% of patients taking immune checkpoint inhibitors.

Highlights

- In patients taking immune checkpoint inhibitors as a treatment for cancer, 17% experienced acute kidney injury (AKI), 8% experienced sustained AKI, and 3% had potential immune checkpoint inhibitor–related AKI.
- Use of proton pump inhibitors, which are commonly used to treat stomach ulcers or acid reflux, was associated with a higher risk of experiencing sustained AKI.

Washington, DC (October 31, 2019) — A new study indicates that kidney damage is fairly common in patients who take immunotherapy medications for treating cancer. The findings, which appear in an upcoming issue of *CJASN*, will be important for maintaining the kidney health of patients who are prescribed these drugs.

Immune checkpoint inhibitors are important medications that are effective at boosting the immune system's response against certain cancers, but they may sometimes cause severe side effects in organs such as the kidneys. To determine the frequency, severity, and predictors of acute kidney injury (AKI) associated with these drugs, Meghan Sise, MD, Harish Seethapathy, MBBS (Massachusetts General Hospital), and their colleagues examined information on all patients who received immune checkpoint inhibitor therapy at their hospital from May 2011 to December 2016.

In the 1,016 patients the analysis, 169 patients (17%) experienced AKI, 82 patients (8%) experienced sustained AKI, and 30 patients (3%) had potential immune checkpoint inhibitor–related AKI. The first episode of sustained AKI occurred on average 106 days after patients initiated immune checkpoint inhibitor therapy. Sixteen patients (2%) experienced stage 3 sustained AKI and 4 patients required dialysis. Use of proton pump inhibitors, which are commonly used to treat stomach ulcers or acid reflux, was associated with a higher risk of experiencing sustained AKI.

“It is important for nephrologists and oncologists to recognize the incidence and factors that associate with acute kidney injury and checkpoint nephritis in patients receiving immunotherapy for cancer,” said Dr. Sise. “We believe that nephrologists are going to be increasingly called upon to determine the cause of AKI in patients on immune checkpoint

inhibitors, and making an accurate diagnosis has huge implications for therapy for a patient's cancer treatment going forward.”

An accompanying editorial highlights the strengths and limitations of the analysis and stresses the need for additional studies.

Study co-authors include Sophia Zhao, MD, PhD, Donald F. Chute, BA, Leyre Zubiri, MD, Yaa Oppong, MD, Ian Strohbahn, BA, Frank B. Cortazar, MD, David E. Leaf, MD, Meghan J. Mooradian, MD, Alexandra-Chloé Villani, MD, PhD, Ryan J. Sullivan, MD, and Kerry Reynolds, MD.

Disclosures: Frank Cortazar has served as consultant for ChemoCentryx and Momenta Pharmaceuticals. Ryan Sullivan receives research support from Merck and Amgen. He serves as a consultant or on advisory boards of Merck, Amgen, Array, Novartis, Genentech, Replimmune and Compugen. Meghan Sise has received research funding from Gilead and EMD-Serono and has been a scientific advisory board member for Gilead, Abbvie, and Merck and a scientific consultant to Abbvie. The other authors have no relevant disclosures.

The article, entitled “The Incidence, Causes, and Risk Factors of Acute Kidney Injury in Patients Receiving Immune Checkpoint Inhibitors,” will appear online at <http://cjasn.asnjournals.org/> on October 31, 2019, doi: 10.2215/CJN.00990119.

The editorial, entitled “AKI with Immune Checkpoint Inhibitors: A Push Beyond Case Reports,” will appear online at <http://cjasn.asnjournals.org/> on October 31, 2019, doi: 10.2215/CJN.12621019.

Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 20,000 members representing 131 countries. For more information, please visit www.asn-online.org or contact the society at 202-640-4660.

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Twitter: Study examines kidney injury in patients taking certain cancer medications.
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Facebook: A new study indicates that kidney damage is fairly common in patients who take certain anti-cancer medications. The findings, which appear in *CJASN*, will be important for maintaining the kidney health of patients who are prescribed these drugs.

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