

KSN 2016 Abstract Submission

Acute Kidney Injury

KSN2016ABS-1134

Transient and Persistent Acute Kidney Injury is an Independent Predictor of Mortality after Gastric Surgery for Gastric Cancer

Chang Seong Kim*, Eun Hui Bae¹, Seong Kwon Ma¹, Soo Wan Kim¹

¹Department of Internal Medicine, Chonnam National University Hospital, Gwangju, Korea, Republic Of

Background: Acute kidney injury (AKI) is common after gastric surgery for gastric cancer and associated with adverse outcomes. However, impact of transient or persistent AKI on clinical outcomes after gastric surgery for gastric cancer has not been described. We aimed to determine the incidence, factors, and clinical outcomes associated with transient or persistent AKI after gastric surgery.

Methods: We performed a retrospective study of 4,886 patients with normal renal function who underwent partial or total gastrectomy for gastric cancer between June 2002 and December 2012. Our outcomes included occurrence of new-onset chronic kidney disease (CKD) and mortality 1 year after gastric surgery.

Results: AKI occurred in 638 (13.1%) after gastric surgery. Of these, transient AKI was documented in 574 (90%). Use of diuretics and contrast agents were common risk factors for persistent and transient AKI. Length of intensive care unit (ICU) and hospital stay, and ICU admission rate were higher in patients with transient AKI than in those without AKI. Although patients with persistent AKI had a higher new-onset CKD 1 year after gastric surgery after adjusting for multiple covariates, transient AKI was not associated with new-onset CKD. The 1-year mortality rates were significantly higher in patients with transient and persistent AKI.

Conclusion: Not only persistent AKI but Transient AKI is associated with increased risk of hospital complications and a significantly higher risk of long-term mortality than patients without AKI after gastric surgery. Moreover, persistent AKI, but not transient AKI, is associated with CKD progression at 1 year.

Keywords: acute kidney injury, chronic kidney disease, gastric surgery, mortality, transient