



Abstract Type : Poster exhibition

Abstract Submission No.: A-0360

Abstract Topic : Acute Kidney Injury

Renal Manifestations in cancer patients treated with Immune Checkpoint Inhibitors

Yu-Been Seo, Sang-kyung Jo, Myung-Gyu Kim, Se Won Oh, Tai Yeon Koo, YoungEun Choi
Department of Internal Medicine, Korea University Anam Hospital, Korea, Republic of

Objectives : Immune checkpoint inhibitors (ICIs) are increasingly used in cancer treatment, but renal complications, including acute kidney injury (AKI), pose significant challenges. This study aimed to determine the incidence, types, risk factors, and outcomes of AKI in patients treated with ICIs.

Methods : This retrospective cohort study included patients aged 19 and older treated with ICIs at Korea University Anam Hospital from 2015 to 2023. Patients with baseline eGFR <15 mL/min/1.73 m² or end-stage kidney disease (ESKD) were excluded. AKI was defined according to Kidney Disease Improving Global Outcomes (KDIGO) criteria. Types of AKI were categorized as nonsustained AKI (recovery within 3 days) and sustained AKI (lasting more than 3 days), including acute tubular necrosis (ATN) caused by ischemia, sepsis, nephrotoxic agents, or potential ICI-induced acute interstitial nephritis (ICI-AKI).

Results : A total of 943 patients were analyzed, with a mean age of 62.9 years, and 64% were male. The overall incidence of AKI was 28.5%. The most common cause of AKI was ATN (14.6%), followed by nonsustained AKI (11.2%) and ICI-AKI (2.65%). Risk factors for ICI-AKI included higher baseline serum creatinine, proteinuria, and proton pump inhibitor (PPI) use. For ATN, risk factors included lower hemoglobin and albumin, higher CRP and ESR levels, PPI use, and PD-1 inhibitors. AKI was associated with a 2.9-fold increased risk of death (OR 2.938, CI 2.358–3.655, $p < 0.001$). Mortality was highest in ATN (OR 6.118, CI 4.748–7.884, $p < 0.001$), followed by ICI-AKI (OR 1.889, CI 0.996–3.584, $p = 0.05$) and nonsustained AKI (OR 1.426, CI 0.995–2.044, $p = 0.05$). Failure to recover from AKI was associated with higher mortality.

Conclusions : AKI is common in ICI-treated patients and is associated with higher mortality. ATN remains the most common cause of AKI and has the worst prognosis. Recovery from AKI is linked to better survival, highlighting the need for strategies to prevent and treat AKI in these patients.

Figure 1.png

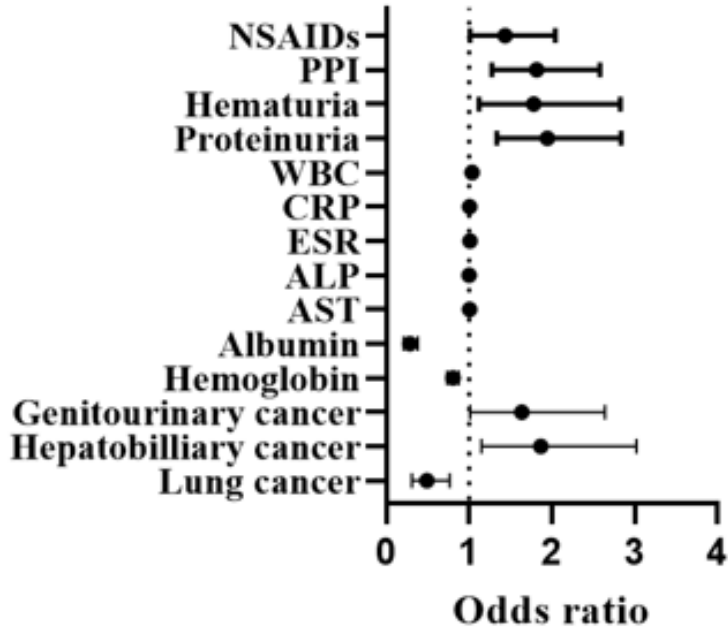


Figure 1.png

