

# EARLY AND LATE ACUTE KIDNEY INJURY IN CRITICAL ILL PATIENTS



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## OBJECTIVES

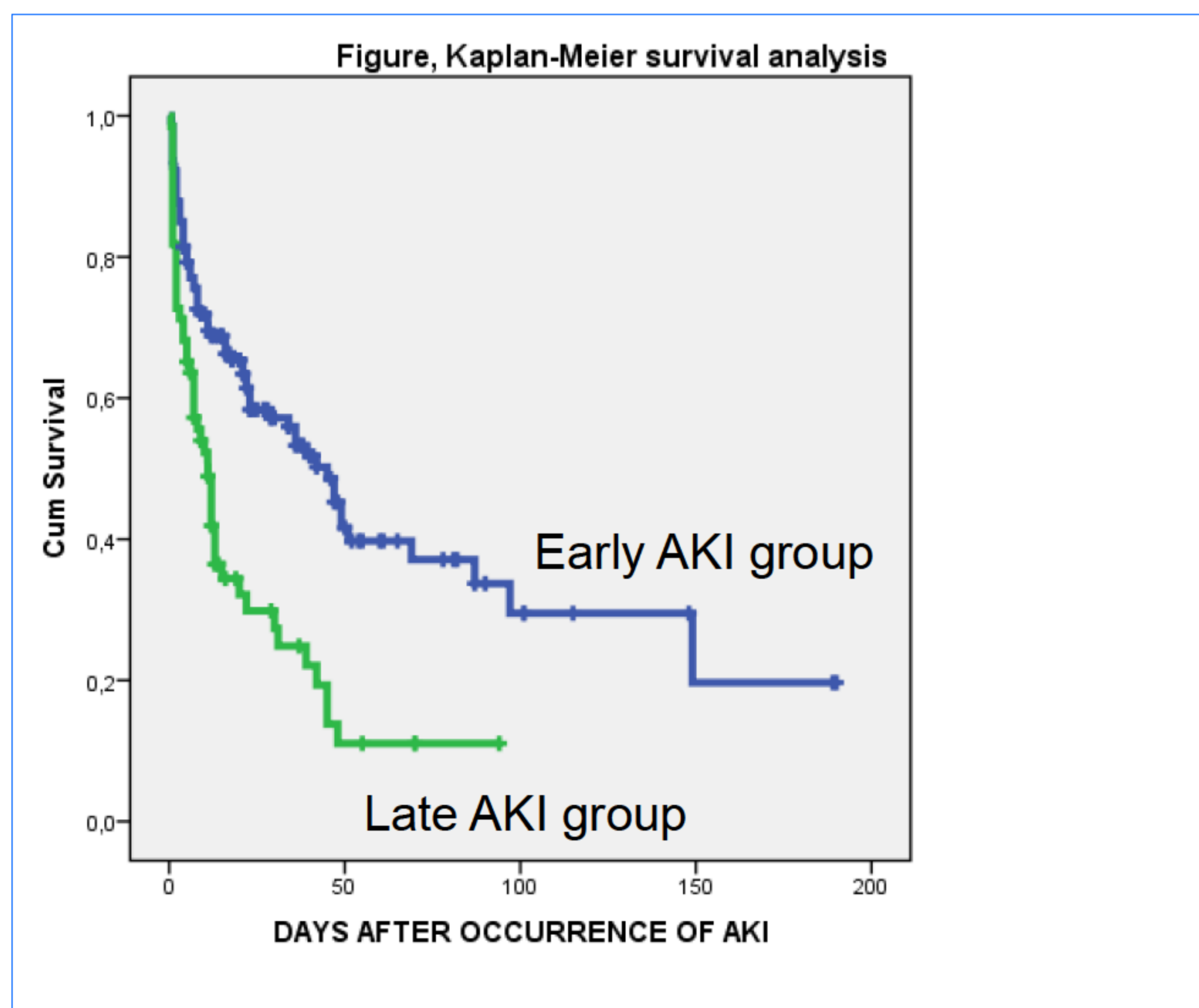
Acute kidney injury (AKI) is a serious complication that occurs frequently in critically ill patients, and is associated with worse outcomes [1]. We investigated clinical features of patients who developed AKI according to the time of AKI development in ICU.

## METHODS

We retrospectively collected the data of adult patients with AKI (n= 206) admitted to ICUs between December 2011 and June 2012. AKI diagnosis was defined according to the KDIGO criteria [2]. Of 206 patients, 140 (68%) had AKI within 48 hours of ICU admission (early AKI group) while 66 (32%) developed AKI later during their stay at the ICU, a median of 216 (IQR 96-384) hours (late AKI group).

Table . Clinical characteristics of the groups

Characteristics	Early AKI group	Late AKI group	p=
Sex M/F	98/42	39/27	0.08
Age (yr; mean [SD])	49.9 (17.6)	62.9 (16.1)	<0.001
Surgical admission (%)	82 (58.6)	45 (68.2)	0.186
Creatinine (mkmol/L; median [IQR])	220.0 (143.0-341.3)	196.5 (151.0- 264.0)	0.309
Urea (mmol/ L; median [IQR])	14.0 (10.0-21.0)	21.0 (16.0-27.1)	0.0001
Sepsis (%)	31 (22.1)	29 (43.9)	0.0052
RRT (%)	100 (71.4)	26 (39.4)	<0.001
Mortality (%)	70 (50)	50 (75.8)	0.018



## RESULTS

The patients with late AKI were older, had greater changes in serum urea from the baseline, were more likely to have a sepsis, and had higher mortality rate than those with early AKI (OR: 2.2, 95% CI: 1.5, 3.2). Survival curve is shown in the figure below (log-rank p = 0.000). The patients with early AKI were more likely to be treated with RRT in the ICU [table] [figure].

## CONCLUSIONS

Our study demonstrates that patients in the ICU with early AKI have some distinguishing features when compared with those with late AKI. We showed that the group with earlier occurrence of AKI had lower mortality rate than the late AKI group.

## REFERENCES:

1. Srisawat N et al. Blood Purif 29:300–307.; 2010
2. Kellum JA et al. Kidney Int. Supplements. 2 (1); 2012

