KSN 2022
SEOUL, KOREA MAY 26 - 29

Abstract Submission No. : 1262

Fasting blood glucose level and all-cause mortality in peritoneal dialysis patients

JongHo Kim[1], Soo-young Yoon[1], Dae kyu Kim[1], Jin Sug Kim[1], Ju Young Moon[1], Kyung Hwan Jeong[1], Gang-Jee Ko[2], Hyeon Seok Hwang[1]
[1]Department of Internal Medicine-Nephrology, Kyung Hee University Medical Center, Korea, Republic of
[2]Department of Internal Medicine-Nephrology, Korea University Guro Hospital, Korea, Republic of

Objectives: Diabetes is a prevalent disorder in end-stage renal disease and the burden of glucose from dialysate is extremely high in peritoneal dialysis (PD) patients. Fasting blood glucose (FBG) level is the first treatment goal for the optimal care of PD patients. However, there is no clear evidence to support ideal FBG target to reduce the mortality risk in PD patients.

Methods: In this retrospective observational cohort on the basis of National Health Insurance Database, we identified individuals who received maintenance PD between 2002 and 2018. A total of 943 patients were included, who developed diabetes and received health screening examination. The primary endpoint was the association between time-updated FBG and risk of all-cause mortality.

Results: Compared to patient with 80 ≤ FBG < 100 mg/dL, the risk of all-cause mortality was increased with increasing FBG level. Hazard ratio (HR) of patients with 125 ≤FBG <150, 150 ≤FBG <180 and FBG >180 mg/dL was 1.27 (95% confidence interval [CI] 1.02-1.58), 1.35(95% CI 1.05-1.73) and 1.61 (95% CI 1.32-1.96), respectively. The patients with FBG <80 mg/dL did not show a significantly increased risk of mortality (HR 1.19, 95% CI 0.93-1.53). However, in patients with hemoglobin lower than 10 g/dL, FBG < 80 mg/dL was significantly associated with higher risk of mortality.

Conclusions: In PD patients with diabetes, the risk of all-cause mortality was lowest at 80 ≤FBG <100 mg/dL. While patients with FBG < 80 mg/dL were not significantly associated with higher risk of mortality, the combined comorbidity such as anemia increased the risk of mortality in patients with FBG <80 mg/dL.