Successfully managed a patient with chronic renal failure and heart failure with both CRRT and IABP

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Continuous renal-replacement therapy (CRRT) developed in the 1980s for the treatment of patients with acute renal failure and end stage renal disease (ESRD) who can not tolerate intermittent hemodialysis because of hemodynamic instability or fluid overload, metabolic disarray. Slower control of solute and fluid with CRRT, as compared with intermittent hemodialysis, is better for hemodynamic tolerance. Intra-aortic balloon pump (IABP) was introduced in the 1960s as a simple effective device to increase coronary perfusion. IABP increases coronary blood flow and body perfusion, decreases myocardial work load and ventricular afterload. Consequently, it is helpful to oxygen supply of myocardium, reducing the number of inotropes and vasopressors. A 73-year-old man with 30 years of diabetes mellitus which progressed to diabetic nephropathy and chronic renal failure (CRF) was hospitalized for aggravation of CRF and heart failure (HF). CRRT applied for decreased urine output, metabolic acidosis, unstable hemodynamic status. IABP was inserted with intubation resulting from drop of blood pressure, atrial fibrillation on EKG, exacerbation of pulmonary congestion. The management of acute stage of ARF and HF was successful, he expired due to concomitant diseases. In this case, we successfully managed a patient with concomittent chronic renal failure and heart failure with both CRRT and IABP.

Statin therapy is more effective in early stage of chronic kidney disease patients

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Background: Chronic kidney disease (CKD) is a major risk factor for the development of cardiovascular disease (CVD). Statin treatment is known as one of options to reduce the risk of CVD. However, it is still uncertain if statin treatment affects the renal progression and outcomes in CKD patients. The aim of this study was to determine the effect of statin treatment in CKD patients on clinical outcomes. Materials and Methods: We retrospectively reviewed CKD patients who visited to Gachon University Gil Medical Center with renal problems from 2003 to 2013. From a total 14497 CKD patients, 858 statin users were paired with 1:1 with non-users for analysis using propensity score matching. The primary endpoint was the all-cause mortality. Secondary endpoints are renal progression including doubling of serum creatinine and renal death. We also analyzed the data from stratification to find out the interactive factors for composite outcomes (doubling of creatinine doubling, renal death and all-cause mortality). Results: Statin was prescribed for 13.5% of study subjects. Statin treatment associated hazard ratios (HRs) [95% confidence intervals (CIs)] for all-cause mortality were 0.655 (0.502-0.855) in the unmatched cohort and 0.537 (0.297-0.973) in the matched cohort. In analyses for secondary outcomes, HRs (95% CIs) for the doubling of serum creatinine levels was significant only in patients with eGFR (estimated glomerular filtration rate) ≥ 30 mL/min/1.73 m² were 0.744 (0.635-0.873) in the unmatched cohort and 0.767 (0.596-0.986) in the matched cohort. The HRs (95% CIs) for composite outcomes among those with and without eGFR ≥ 30 mL/min/1.73 m² were 0.764 (0.613-0.952) and 1.232 (0.894-1.697), respectively (p for interaction, 0.017). Conclusions: These results suggest that statin treatment in early stages of CKD patients may useful related to renal progression and all-cause mortality. Further evaluation is needed to find out if early administration of statin in CKD patients improves the outcomes.