Emergency presentation in chronic kidney disease on regular hemodialysis attending in Tribhuvan University teaching hospital emergency services

Tirtha Man Shrestha
Department of General Practice and Emergency Medicine, Tribhuvan university, Institute of medicine, Maharajgunj medical campus, Nepal

Objectives: The objective is to study laboratory parameters of these patients so that in future these deranged parameters can be focused during patient management and decrease their emergency visit.

Methods: This was cross sectional study done in emergency room of Tribhuvan University Teaching Hospital from 1st May 2018 to 31st October 2018 among the adult chronic kidney disease patients under maintenance hemodialysis. Nonprobability sampling method was used. Total of 300 patients were enrolled in the study. Patients’ age, sex, comorbid health conditions, laboratory parameter during emergency visit viz. hemoglobin, pH, serum bicarbonate level, serum potassium level, need of emergency hemodialysis, need of blood transfusion and mortality within 7 days were studied.

Results: Total of 300 patients were enrolled in the study. Overall mean age was 45.64 years (S.D =17.15) with mean age in survivor group being 45.69 years (S.D = 17.03) and in mortality group, mean age was 45.04 years (S.D = 18.96) (Odds ratio= 1.028, p value=0.423). 63.3 % were male and 36.70% were female. 50% of patients had hypertension. Mean hemoglobin was 5.58gm% (S.D = 2.02) in mortality group and 6.59gm% (S.D = 1.9) (odds ratio 2.679, p value= 1.041, 95% C.I = 1.039-6.097). Mean pH was 7.11 in mortality group while 7.18 in survivor group (Odds ratio= 92.508, p value= 0.415, 95% C.I = 0.002- 4886427.6). Mean serum potassium level was 6.13 in mortality group and 5.74 in survivor group (odds ratio= 0.456, p value= 0.144, 95% C. I= 0.1559-1.307). There was no significant difference in serum creatinine, pCO2, bicarbonate level, hemodialysis, blood transfusion, presence of sepsis and comorbidities among mortality and survivor group.

Conclusions: Presence of comorbidities, hemoglobin level, increased serum creatinine and potassium level and metabolic acidosis were significantly correlated with mortality in chronic kidney disease and are cause of frequent visit in emergency room.