

Predictor of cardiovascular risks in end stage renal failure patients on maintenance dialysis

ABSTRACT

Objective: Cardiovascular disease (CVD) is the main cause of morbidity and premature mortality in end stage renal failure patients (ESRD) receiving dialysis. The aim of our study was to evaluate the impact of various risk factors in this group of high CVD risk patients in local population. **Methods:** We carried out a cross-sectional retrospective study in a single hospital. A total of 136 ESRF patients, consisted of 43 haemodialysis (HD) and 93 continuous ambulatory peritoneal dialysis (CAPD) patients, were recruited and followed up for 36 months duration. Midweek clinical and laboratory data were collected. The occurrence of existing and new CVD events was recorded. **Results:** Multiple Logistic Regression showed pre-existing cardiovascular event (odds ratio, 4.124; 95% confidence interval [CI], 0.990 to 17.187), elevated total cholesterol level (odds ratio, 0.550; 95% CI, 0.315 to 0.963), elevated serum phosphate level (odds ratio, 5.862; 95% CI, 1.041 to 33.024) and elevated random blood glucose level (odds ratio, 1.193; 95% CI, 1.012 to 1.406) were significantly associated with occurrence of CVD events. **Conclusions:** History of cardiovascular event before the initiation of dialysis, elevated level of serum phosphate and random blood glucose levels are the risk factors of CVD whereas paradoxically a high total cholesterol level has CVD protective effect towards the ESRF patients.

Keyword: CVD risk; End Stage Renal Failure (ESRF); Haemodialysis; Peritoneal dialysis