



AC069

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

EVALUATION OF RISK FACTORS FOR SUDDEN CARDIAC DEATH AND OUTCOMES IN PREDIALYSIS CHRONIC KIDNEY DISEASE PATIENTS

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Background: The burden of cardiovascular risk factors is huge in chronic kidney disease (CKD) patients and is responsible for cardiovascular events such as sudden cardiac death (SCD). This study aimed to evaluate the frequency of risk factors of SCD and outcomes in pre-dialysis CKD patients using the 12-lead electrocardiograph (ECG), Holter ECG, and echocardiography.

Methods: This was a prospective longitudinal study. One hundred and thirteen (113) pre-dialysis CKD patients in stages 3-5 were recruited, and 113 age and sex matched controls with normal renal function. Participants were followed up for six months. Blood samples were collected to assess electrolytes, urea, and creatinine levels. Risk factors for SCD, such as left ventricular hypertrophy (LVH), prolonged QT intervals and low heart rate variability (HRV) were assessed.

Results: The CKD cases consisted of 72 males and controls 60 males, with ages ranging from 18 to 72 years. The frequency of LVH, prolonged QT, low HRV, and abnormal T wave alternans was more significantly prominent among CKD patients with P-values of 0.001, <0.001, 0.004, and 0.034, respectively. In addition, there were statistically significant low ejection fractions and diastolic dysfunction among the CKD patients.

Conclusion: This study showed that the risk factors of SCD were more prevalent in pre-dialysis CKD patients than in the general population. The outcome of SCD was reported in 15 individuals among the CKD cases, which was significant among stage 5 CKD patients over a six-month follow-up period.

Keywords: Sudden cardiac death, Chronic kidney disease