

Poster Session I
#3

Daytime Sleepiness Impact Quality of Life in Heart Failure Patients with Chronic Kidney Disease

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Purpose: The Purpose of this study was to investigate the association of daytime sleepiness and quality of life (QOL) in heart failure (HF) patients with moderate or severe chronic kidney disease (CKD), prior to dialysis.

Conceptual Framework: HF and advanced CKD are associated with poor QOL. Sleep disturbances have been reported in HF patients and in those on dialysis. The conceptual model of this study postulates that in adults with HF and CKD (moderate or severe), daytime sleepiness has an independent predictive role in QOL.

Methods: Sixty seven patients with HF and concurrent kidney disease were recruited from 3 sites in Philadelphia, and Newark, Delaware. Patients on dialysis or with major depression were excluded. Clinical parameters were collected from medical records and demographics were measured by self-report. Daytime sleepiness was measured as a combination of trait (Epworth Sleepiness Scale), state (Stanford Sleepiness Scale), and behavioral (Psychomotor Vigilance Task) sleepiness. The Kansas City Cardiomyopathy Questionnaire (KCCQ) was used to measure health-related QOL. Variables significant on bivariate analysis were used in linear regression to assess the contribution of daytime sleepiness to QOL. Significance was set at $p < 0.05$.

Results: The sample was 79% male and the mean age was 67 ± 11.12 years; 66% were in New York Heart Association (NYHA) class III, and mean creatinine was 1.96 ± 0.77 mg/dL. Comorbidity prevalences were 83.6% hypertension, and 50.7% diabetes. The mean of the sleepiness scores was 68.87 ± 32.07 (possible range 0-270, true range 21-179), and mean KCCQ score was 62.69 ± 23.72 (range 16.67-100). On regression analysis, daytime sleepiness was a significant determinant ($p = 0.041$) of QOL, controlling for age, NYHA class, and depression score. The model explained 42.8% of the variance in QOL.

Conclusion and Implications: Daytime sleepiness is a determinant of worsened QOL in HF patients with moderate or severe CKD. Further studies are needed to identify modifiable factors that can improve QOL in these patients.