ASSOCIATION BETWEEN PERIODIC LEG MOVEMENTS DURING SLEEP AND CLINICAL OUTCOMES IN HOSPITALIZED PATIENTS WITH SYSTOLIC HEART FAILURE FOLLOWING ACUTE DECOMPENSATION

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 10:00 a.m.–10:45 a.m.

Session Title: Many Faces of Heart Failure
Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical
Presentation Number: 1113-205

Authors: Shoichiro Yatsu, Takatoshi Kasai, Shoko Suda, Azusa Murata, Takao Kato, Masaru Hiki, Tetsuro Miyazaki, Hiroyuki Daida, Department of Cardiology, Juntendo University, Tokyo, Japan, Cardio-Respiratory Sleep Medicine, Juntendo University, Tokyo, Japan

Background: Periodic leg movement during sleep (PLM) is a disorder characterized by regularly recurring movements of the legs during sleep. Although PLM disorder (PLMD) is common and a predictor of mortality in patients with chronic heart failure, prevalence and clinical significance of PLMD in hospitalized patients with left ventricular (LV) systolic dysfunction following acute decompensation heart failure (ADHF) remains unknown.

Methods: After the initial improvement of acute signs and symptoms of ADHF, we performed polysomnography on consecutive patients whose LV ejection fraction <50%, and who were hospitalized due to ADHF between 2012 and 2014. PLMD was regarded as having a moderate-to-severe PLM defined as PLM index ≥25. The risks for clinical events, composite of all-cause mortality and re-hospitalization, were assessed by stepwise multivariable Cox proportional model including variables showing P<0.15 in univariate analyses.

Results: Overall, 94 patients were enrolled. PLMD was found in 24 patients (26%). At a median follow-up of 5.2 months, 30 patients had clinical events (32%). In the stepwise multivariable analysis, presence of PLMD was significantly associated with increased risk of clinical events (Figure) independent from hemoglobin level and severity of sleep disordered breathing.

Conclusion: In hospitalized patients with systolic dysfunction following ADHF, PLMD was prevalent and independently associated with increased risk of mortality or re-hospitalization.