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Heart Failure and Cardiomyopathies

THE ROLE OF ADAPTIVE SERVO-VENTILATION IN REDUCING REHOSPITALIZATION FOR ELDERLY PATIENTS WITH HEART FAILURE

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Advances in Heart Failure Therapies: From Diuretics to VADs and Transplant

Abstract Category: 14. Heart Failure and Cardiomyopathies: Clinical

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Background: The number of the elderly patients with chronic heart failure (CHF) who are repeatedly hospitalized is increasing with aging of the population. It has been reported that adaptive servo-ventilation (ASV) therapy improves the symptoms, cardiac function and prognosis of CHF patients. However, its effect in elderly CHF patients who had several repeat hospitalizations remains to be determined. Therefore, the purpose of this study was to elucidate the effects of ASV in elderly CHF patients.

Methods: We screened 27 elderly patients (≥ 65 years) with CHF, who were repeatedly hospitalized at least twice a year despite of optimal medical therapy, and introduced ASV (Autoset CSTM; ResMed) at home. We compared parameters of echo parameters, the frequency and duration of hospitalization, and health care costs for 6 months before the introduction of ASV with those for the 6 months after the introduction of ASV.

Results: Six months after the introduction of ASV, New York Heart Association (NYHA) class improved significantly (2.8 ± 0.5 vs. 2.4 ± 0.5 , $P < 0.01$) and brain natriuretic peptide (590 ± 537 vs. 335 ± 401 , $P < 0.01$), left atrial dimension ($P < 0.05$), and mitral regurgitation ($P < 0.01$) were significantly decreased. Moreover, the frequency (1.7 ± 0.7 times vs. 0.5 ± 0.7 times, $P < 0.01$) and duration of hospitalization (48.9 ± 30.4 days vs. 12.9 ± 21.5 days, $P < 0.01$) for 6 months after the introduction of ASV were significantly reduced compared with those for 6 months before the introduction of ASV. As a result, health care costs were significantly decreased by 33% ($P < 0.05$).

Conclusion: These results suggest that ASV could improve symptoms, reduce the risk of hospitalization, and health care costs in elderly CHF patients who are repeatedly hospitalized.