EFFICACY AND SAFETY OF A MODIFIED DOSE AND ADMINISTRATION REGIMEN OF NESIRITIDE IN ELDERLY PATIENTS OVER 75 YEAR SUFFERING FROM ACUTE HEART FAILURE

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Monday, March 26, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Pharmacological Therapy: Matching Patient and Drug for Optimal Outcome
Abstract Category: 13. Heart Failure: Therapy
Presentation Number: 1229-602

Authors: Luo Leiming, Fu Shihui, Yi Shuangyan, Zhu Bing, Department of Geriatric Cardiology, Chinese PLA General Hospital, Beijing, People’s Republic of China

Background: Recombinant human B-type natriuretic peptide nesiritide should be assessed further, because different therapeutic regimen could induce different results. This study was to explore efficacy and safety of modified dose and administration regimen of nesiritide in elderly patients over 75 year suffering from acute heart failure (AHF).

Methods: 140 elderly patients over 75 year suffering from AHF were enrolled in and randomly divided into two groups, conventional or nesiritide group. They were given conventional or conventional plus nesiritide treatment with a modified dose and continuous IV infusion regimen. The total dose of nesiritide 0.5~0.75 mg were continuous IV infused at a rate of 0.0075~0.015 /μg·kg / min for 10-15 hours once daily basing on a stable systolic blood pressure, the course of treatment was sustained for 13 days. During this time, the reflected efficacy and safety parameters were recorded.

Results: On Day 4, 8 and 14, medical research council (MRC) scales in nesiritide group were significantly lower than those in conventional group (P = 0.038, P= 0.015, P= 0.010). Scores of edema between two groups had no significant difference on Day 4 (P= 0.084), but were lower in nesiritide group on Day 8 and 14 (P=0.019, P= 0.003). Compared with conventional group, nesiritide group had much more net fluid losses on Day 4 and 8 (P=0.049, P=0.029), but difference disappeared on Day 14 (P=0.067). Serum creatinine had no significant difference on Day 4 and 14 (P= 0.080, P= 0.063), but a slight and reversible rise was found on Day 8 in nesiritide group (P=0.029). There were not significantly different in systolic (P=0.190, P=0.585, P=0.162) and diastolic levels (P=0.228, P=0.940, P=0.772), serum NT-proBNP (P=0.914, P=0.851, P= 0.899) and cTnI (P=0.947, P=0.262, P= 0.629), 30 day (11.4 vs 10%, P=0.785) and 60 day(15.7 vs 17.1%, P=0.82) mortality between two groups in all courses.

Conclusions: Modified dose and administration regimen of nesiritide improved manifestation of congestion and had similar adverse effects compared with conventional treatment. In spite of no reduction on short-term mortality, nesiritide was still an important choice for those elderly with AHF even over 75 year.