Abstract
Nesiritide is approved by Food and Drug Administration (FDA) for the treatment of patients with acute decompensated heart failure (ADHF) due its ability to rapidly reduce cardiac filling pressures and improve dyspnea. Numerous studies have shown that renal dysfunction is associated with unfavorable outcomes in patients with heart failure. In addition, there have been reports suggesting that nesiritide may adversely affect renal function and mortality. Objective: The purpose of this retrospective analysis was to assess the effect of dose and duration of nesiritide use and the dose and duration of diuretic therapy on worsening renal function and increased in-hospital mortality in this patient population. Methods: Seventy-five patients who were hospitalized for ADHF and who were treated with nesiritide for at least 12 hours were reviewed retrospectively. Results: The mean increase in SCr was 0.5 mg/dL (range 0 - 4.4 mg/dL). Thirty-six percent of patients (27/75) met the primary endpoint with an increase in SCr>0.5 mg/dL. Treatment dose and duration of nesiritide did not differ between those patients who had an increase in SCr>0.5 mg/dL and those who did not (p=0.44 and 0.61). Concomitant intravenous diuretics were used in 85% of patients with an increase in SCr >0.5 mg/dL compared to 90% of patients without an increase in SCr>0.5 mg/dL (p=0.57). The in-hospital mortality rate was also higher at 35% in those patients with an increase in creatinine >0.5 mg/dL compared to 11% in those without (p=0.01). Conclusion: Nesiritide was associated with an increase in SCr > 0.5 mg/dL in approximately onethird of patients. The increase occurred independently of dose, duration of nesiritide therapy, blood pressure changes, and concomitant intravenous diuretic use. However, the increase in SCr was associated with an increase in hospital stay and in hospital mortality consistent with previous reports in the literature.

Keywords
Natriuretic peptide, brain, heart failure, mortality.