INTERACTION BETWEEN BASELINE AND EARLY WORSENING OF RENAL FUNCTION AND EFFICACY OF RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM BLOCKADE IN PATIENTS WITH HEART FAILURE: INSIGHTS FROM VALSARTAN IN HEART FAILURE TRIAL

Poster Contributions
Poster Sessions, Expo North
Sunday, March 10, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Heart Failure: Pharmacologic Therapy
Abstract Category: 17. Heart Failure: Therapy
Presentation Number: 1223-302

Authors: Anastasia Lesogor, Jay Cohn, Roberto Latini, Gianni Tognoni, Henry Krum, Barry Massie, Andrew Zalewski, Albert Kandra, Tsushung Hua, Claudio Gimpelewicz, Novartis Pharma AG, Basel, Switzerland

Background: Impaired renal function in patients with heart failure is associated with a poor outcome. We analyzed the effect of valsartan as add-on to an angiotensin-converting enzyme inhibitor, dual renin-angiotensin-aldosterone system (RAAS) blockade, on the composite endpoint of cardiovascular death and heart failure hospitalization in Valsartan in Heart Failure Trial (Val-HeFT) patients according to estimated glomerular filtration rate (eGFR) at baseline and by presence of early worsening of renal function (EWRF).

Methods: A total of 5,010 clinically stable New York Heart Association class II to IV heart failure patients with reduced ejection fraction enrolled in the trial were considered for this post hoc analysis. Renal impairment and EWRF were defined as eGFR<60 mL/min/1.73 m2 at baseline and eGFR decrease >20% within 1 month after randomization respectively. Statistical analyses were done using Cox proportional hazards regression model and a Wald chi-square test.

Results: Baseline eGFR data was available for 5,007 patients. A total of 4,644 (92.7%) patients were receiving angiotensin-converting enzyme inhibitors. Renal impairment at baseline was observed in 2,346 (46.8%) patients, while EWRF was seen in 425 (8.6%) patients. Overall, patients receiving valsartan showed a significant reduction in composite cardiovascular death and heart failure hospitalization compared with placebo (hazard ratio [HR] 0.83 [0.75, 0.92]; p=0.0005). In patients with baseline eGFR<60 mL/min/1.73 m2, dual RAAS conferred significant benefit in favor of valsartan on cardiovascular death and heart failure hospitalization as compared to placebo (HR 0.76 [0.66, 0.88]; p=0.0002). Risk of cardiovascular death and heart failure hospitalization was significantly higher in patients with EWRF when compared with patients without EWRF (HR 1.44 [1.21, 1.71]; p<0.0001). A significant difference between treatment groups was also observed in favor of valsartan (dual RAAS) in EWRF patients (HR 0.63 [0.45, 0.89]; p=0.0086).

Conclusions: Treatment with dual RAAS blockade in patients with heart failure showed long-term benefits even in patients with EWRF and renal dysfunction at baseline.