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## Heart Failure and Cardiomyopathies

### MORTALITY BENEFIT OF SPIRONOLACTONE IN DIABETIC VERSUS NON-DIABETIC PATIENTS WITH CONGESTIVE HEART FAILURE

Poster Contributions

Hall C

Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Heart Failure and Cardiomyopathies: Therapy III

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**Background:** While mortality benefit of spironolactone in patients with heart failure (HF) and reduced left ventricular ejection fraction (LVEF) has been well-described, there is no clinical study demonstrating this effect in diabetics versus non-diabetics.

**Methods:** From 2002 to 2012, all consecutive patients  $\geq 18$  years with systolic HF (LVEF  $\leq 35\%$ ) on standard medical therapy with a beta-blocker and ACE inhibitor or angiotensin-receptor blocker from 3 hospitals of Montefiore Medical Center were included and divided into diabetics and non-diabetics. Each group was stratified by whether or not they were on spironolactone after diagnosis of HF. Endpoint was 2-year all-cause mortality.

**Results:** Of 3,160 patients included (age  $63 \pm 15$ ; 65% male), 1,650 were diabetic and 1,510 were non-diabetic. During 2-year follow-up, 536 (48%) diabetics and 498 (49%) non-diabetics were on spironolactone. While in diabetics, spironolactone significantly reduced mortality compared to no spironolactone (14.8 vs 20%, RR 0.70 [95% CI 0.54-0.91];  $p=0.008$ ), there was no significant mortality reduction in non-diabetics (14.1 vs 15.4%, RR 0.89 [95% CI 0.67-1.19];  $p=0.451$ ).

**Conclusion:** In this multicenter study, spironolactone showed a mortality benefit in diabetics with HF, while there was no benefit in non-diabetics. These observations may be a result of anti-inflammatory effect of spironolactone or blockade of aldosterone-induced vascular insulin resistance role in vascular dysfunction seen especially in diabetes.

