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## Heart Failure and Cardiomyopathies

### LONG TERM IMPROVEMENT IN RENAL FUNCTION DURING CONTINUOUS FLOW LEFT VENTRICULAR ASSIST DEVICE SUPPORT IS ASSOCIATED WITH USAGE OF ANGIOTENSIN CONVERTING ENZYME INHIBITORS (ACEIS) OR ANGIOTENSIN RECEPTOR BLOCKERS (ARBs)

Poster Contributions

Hall C

Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Approaches to Advanced Heart Failure: From VAD, Transplant, Palliative Care to New Percutaneous Therapies

Abstract Category: 12. Heart Failure and Cardiomyopathies: Clinical

Presentation Number: 1221-176

Authors: *Omar Saeed, Rita Jermyn, Snehal Patel, Jooyoung Shin, David D'lessandro, Daniel Goldstein, Ronald Zolty, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY, USA***Background:** The effect of angiotensin converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs) on renal function during continuous flow left ventricular assist device support is unknown.**Methods:** A retrospective analysis was conducted in all patients who underwent CF LVAD placement at our center from July 2006 to June 2013 with a pre-implant GFR of  $<60$  ml/min/1.73m<sup>2</sup>. Baseline demographics and changes in GFR at 1, 6 and 12 months after implantation were compared in patients who did and did not receive ACEIs or ARBs.**Results:** Thirty-two patients underwent CF LVAD placement with a baseline GFR of  $<60$  ml/min/1.73m<sup>2</sup>. Eighteen of these patients received an ACEI or ARB, while the remaining 14 patients did not. Both groups had similar demographics, including mean age (ACEI/ARB:  $59\pm 11$  vs. no ACEI/ARB:  $58\pm 10$  years;  $p=0.81$ ), diabetes mellitus and hypertension. In comparison to pre-implant renal function, the mean GFR of both groups improved after 1 month of CF LVAD support (ACEI/ARB:  $44\pm 4$  to  $65\pm 5$  ml/min/1.73m<sup>2</sup>,  $p<0.01$ ; no ACEI/ARB:  $36\pm 4$  to  $48\pm 4$ ,  $p=0.02$ ). Patients receiving an ACEI or ARB had sustained improvement in GFR at 12 months ( $74\pm 8$  ml/min/1.73m<sup>2</sup>,  $p<0.01$ ) while those not on an ACEIs or ARBs showed no difference ( $44\pm 4$  ml/min/1.73m<sup>2</sup>,  $p=0.20$ ) in comparison to pre-implant renal function.**Conclusions:** All patients showed an improvement in renal function after 1 month of CF LVAD support but sustained improvement was only observed in patients taking an ACEI or ARB.