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### Authors

Rhee, Connie  
Moradi, Hamid  
Brunelli, Steven  
[et al.](#)

### Publication Date

2014

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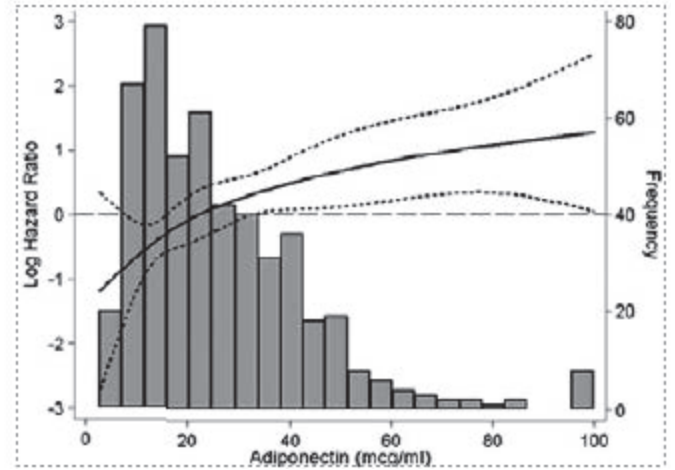
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**SP604 ASSOCIATION BETWEEN ADIPONECTIN AND MORTALITY IN HEMODIALYSIS PATIENTS FROM THE MADRAD STUDY**

Connie Rhee<sup>1</sup>, Hamid Moradi<sup>1</sup>, Steven Brunelli<sup>2</sup>, Jennie Jing<sup>1</sup>, Tracy Nakata<sup>1</sup>, Danh Nguyen<sup>1</sup>, Csaba Kovacs<sup>3</sup>, Gregory Brent<sup>4</sup> and Kamyar Kalantar-Zadeh<sup>1</sup>  
<sup>1</sup>University of California Irvine, Orange, CA, <sup>2</sup>Brigham and Women's Hospital, Boston, MA, <sup>3</sup>Memphis VA Medical Center, Memphis, TN, <sup>4</sup>VA Greater Los Angeles Healthcare System, Los Angeles, CA

**Introduction and Aims:** In the general population, circulating adiponectin has anti-atherogenic, anti-inflammatory, and insulin-sensitizing properties and is associated with decreased cardiovascular morbidity and mortality. Hemodialysis patients have disproportionately higher adiponectin levels, and prior studies examining the relationship between adiponectin concentration and mortality have been inconsistent.

**Methods:** We conducted a prospective study examining the association between baseline serum adiponectin level and all-cause mortality in 501 hemodialysis patients from 13 DaVita dialysis centers from the Malnutrition, Diet, and Racial Disparities in



SP604 Figure 2: Adiponectin as a Continuous Predictor of Mortality Using a Spline Model Adjusted for Case-Mix+Laboratory Covariates.

**Table 1. Association Between Adiponectin in Tertiles and Mortality**

	Unadjusted		Case-mix adjusted		Case-mix + Laboratory adjusted	
	HR (95% CI)	P-value*	HR (95% CI)	P-value**	HR (95% CI)	P-value†
Adiponectin Tertile 2 (>16.06-30.07 mcg/ml)	1.81 (0.79-4.15)	0.2	1.71 (0.74-3.95)	0.2	1.71 (0.75-4.01)	0.2
Adiponectin Tertile 3 (>30.07 mcg/ml)	3.13 (1.46-6.72)	0.003	3.09 (1.42-6.75)	0.005	3.35 (1.50-7.47)	0.003

\*p for trend=0.002; \*\*p for trend=0.001; †p for trend=0.002

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**Table 2. Association Between Adiponectin in Continuous Increments and Mortality**

	Unadjusted		Case-mix adjusted		Case-mix + Laboratory adjusted	
	HR (95% CI)	P-value	HR (95% CI)	P-value	HR (95% CI)	P-value
Δ Adiponectin 10mcg/ml	1.27 (1.13-1.42)	<0.001	1.26 (1.12-1.41)	<0.001	1.25 (1.10-1.41)	0.001
Δ Adiponectin 1 standard deviation*	1.52 (1.24-1.86)	<0.001	1.50 (1.22-1.83)	<0.001	1.47 (1.18-1.84)	0.001

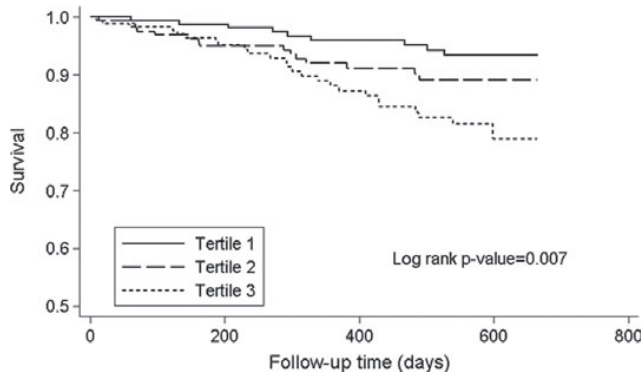
\*Standard deviation=17.59mcg/ml

Kidney Disease cohort (entry period October 2011 to February 2013 with follow-up through August 2013). Associations between adiponectin categorized into tertiles were examined using unadjusted, case-mix, and case-mix + laboratory adjusted Cox proportional hazards models.

**Results:** Among 501 patients who underwent adiponectin measurement (mean ± SD 26.9 ± 17.6 mcg/ml; range 5.3-100.0 mcg/ml), the mean ± SD age of the cohort was 55.2 ± 14.9 years, of whom 44% were female, 40% were African-American, and 47% had diabetes. Compared with the lowest adiponectin tertile, the highest adiponectin tertile was associated with increased all-cause mortality risk in adjusted, case-mix, and case-mix + laboratory adjusted models (Table 1). The second adiponectin tertile was associated with numerically greater risk, but estimates were not statistically significant. In sensitivity analyses that examined adiponectin as a continuous variable, we observed that incrementally higher adiponectin level was associated with increased death risk (Table 2; Figure 2).

**Conclusions:** Higher circulating adiponectin levels in hemodialysis patients are paradoxically associated with higher all-cause mortality. Future studies are needed to confirm findings and to elucidate mechanistic pathways.

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SP604 Figure 1: Kaplan Meir Survival Curves for Adiponectin Level.