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Authors

Streja, Elani
Doshi, Megha
Rhee, Connie
[et al.](#)

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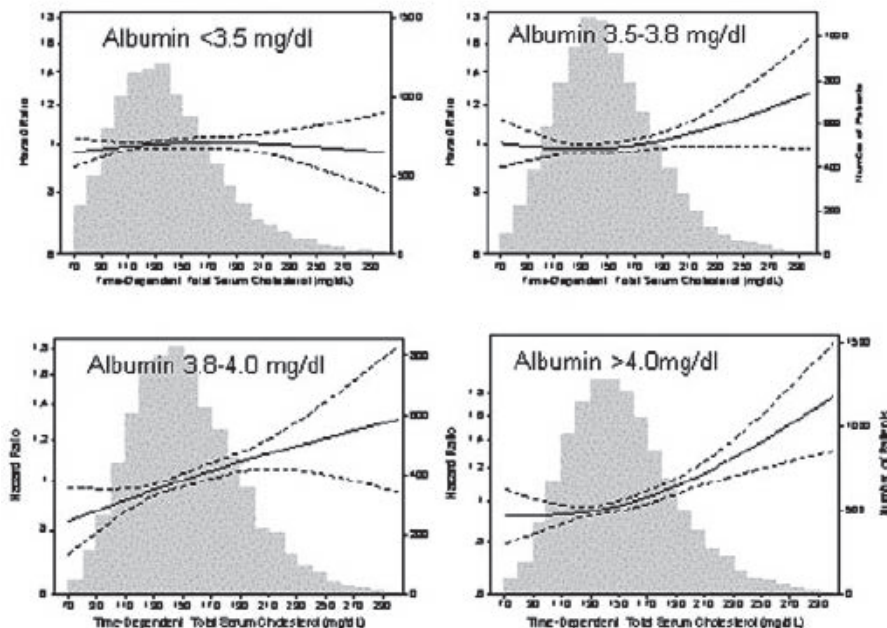
EFFECT OF ALBUMIN ON ASSOCIATION OF SERUM CHOLESTEROL AND MORTALITY IN HEMODIALYSIS PATIENTS

Elani Streja¹, Megha Doshi¹, Connie Rhee¹, Csaba Kovcsdy², Hamid Moradi¹ and Kam Kalantar-Zadeh¹

¹UC Irvine Medical Center, Orange, CA, ²Memphis VA Medical Center, Memphis, TN

Introduction and Aims: In contrast to the general population, studies have found an inverse or non-significant association of serum total cholesterol and mortality in chronic hemodialysis (HD) patients, also known as a “lipid paradox”. We hypothesize that the association between cholesterol and mortality in HD patients may be modified by serum albumin levels.

Methods: Across 4 categories of serum albumin (ALB) levels (4.0 g/dL), we examined the associations of cholesterol with 6-yr (2001-2007) all-cause mortality among 53,041



adult HD patients. We used continuous time-dependent cholesterol in restricted cubic spline models adjusted for case-mix and markers of the malnutrition-inflammation complex (MICS).

Results: Patients were 62 ± 16 years old and included 45% women, 31% blacks, and 55% diabetics. There were 12,505 patients ALB 4.0 g/dL. Using restricted cubic splines with 2 degrees of freedom, we found no significant associations between both lower and higher levels of cholesterol with all-cause mortality in HD patients in any strata of ALB 200.

Conclusions: Hence, HD patients with better nutritional status, or serum albumin level ≥ 4.0 g/dL demonstrate an exception to the lipid paradox where higher levels cholesterol appear associated with increased all-cause mortality.