Title

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ASSOCIATIONS OF DIETARY PROTEIN INTAKE WITH SERUM ALBUMIN LEVEL IN HEMODIALYSIS PATIENTS.

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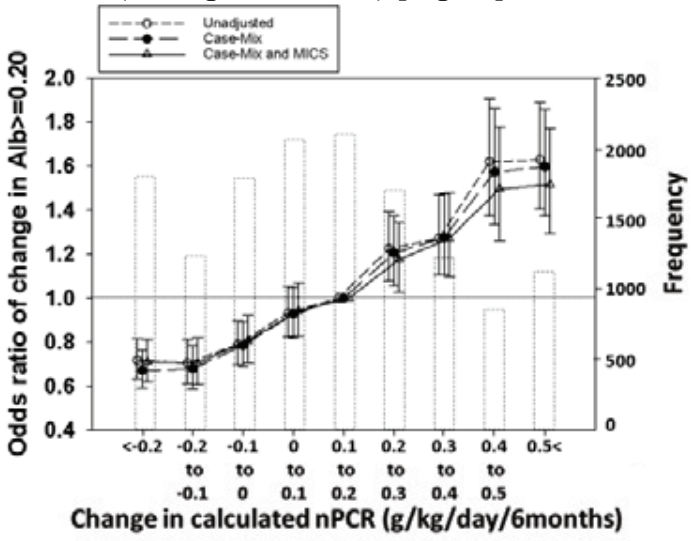
Lower serum albumin levels, an important marker of nutrition and inflammation, are associated with higher mortality in hemodialysis (HD) patients. However, it is unclear if dietary protein intake evaluated by normalized protein catabolic rate (nPCR) can predict serum albumin levels in HD patients. We hypothesize that an increase in nPCR is associated with an increase in serum albumin. We examined calculated nPCR, taking into account residual renal function in an US cohort of 36,713 incident HD patients who initiated dialysis between 2007-2011. The association of change in calculated nPCR level (n=13,900) and change in serum albumin level during the first 6 months of dialysis was examined using logistic regression models with multivariable adjustment for case-mix covariates and markers of the malnutrition and inflammation complex syndrome (MICS).

Patients were 62±15 years; 37% female, 28% African-American, and 47% diabetic. An increase in the change in calculated nPCR was linearly associated with a higher odds of a rise in serum albumin (≥0.20g/dL/6month) [Figure].



A rise or drop in dietary protein intake, represented by nPCR changes over time, was associated with parallel changes in serum albumin level in HD patients. These data suggest potential impact of dietary protein intake on serum albumin.