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Abstracts

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HIGHER aspartate aminotransferase LEVELS ARE ASSOCIATED with HIGHER ALL-CAUSE MORTALITY in MAINTENANCE HEMODialysis Patients

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Introduction and Aims: In Maintenance Hemodialysis (MHD) patients, liver disease is a comorbidity that may be associated to poor survival. Some studies have observed positive association between elevated liver enzymes and mortality risk in MHD patients but to date, the relationship between Aspartate Aminotransferase (AST) and all-cause mortality risk in MHD patients has not been well studied. We hypothesized that higher levels of AST would be associated with increased all-cause mortality in MHD patients.

Methods: In this study we analyzed a database of 114,267 DaVita MHD patients followed up to 8 years (2001-2009) to examine the association of AST with all-cause mortality. We used baseline AST levels in fractional polynomial models with adjusted for case mix covariates plus surrogates of malnutrition and inflammation (MICS)

Results: The patient's average age was 61 ± 15 year old with 45% being female, 32% blacks and 57% diabetics. We found a significant positive association between increasing AST levels above 20U/L and all-cause mortality even after adjustment for case mix plus MICS covariates. In fully adjusted models, AST levels ≥ 80 U/L, are associated with highest risk of mortality with a Hazard Ratio of 1.70 (95% confidence interval 1.56 to 1.85; $P < 0.0001$)

Conclusions: In MHD patients, increasing levels of serum AST above 20 U/L are associated with a linear increased risk of all-cause mortality even after adjustment for MICS markers. Further studies are needed to confirm findings and determine mechanistic pathways of the AST—mortality association.

