

SERUM FRUCTOSAMINE (SF) AND GLYCOSYLATED HEMOGLOBIN (HbA1c) AS PREDICTORS OF HOSPITALIZATION AND INFECTION IN DIABETIC HEMODIALYSIS PATIENTS (PTS)

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Diabetes is the most common cause of end-stage renal disease and an important risk factor for mortality in dialysis pts. We have previously reported that SF was more closely associated with hospitalizations and infections in diabetic HD pts than HbA1c. The objective of this study was to further examine the association of SF and HbA1c with hospitalization and infection in this population with extended follow-up. We enrolled 100 diabetic HD pts in February 2005 and followed them to November 2007. We recorded demographics, biochemical and clinical data including hospitalizations and episodes of infection. HbA1c and SF levels were measured by immunoturbidimetric and colorimetric methods, respectively. SF values were corrected for the concentration of serum albumin. The mean age was 63 years. Fifty-four percent were women, and the majority were African-American (72%). By logistic regression analysis, corrected SF (odds ratio: 1.006,  $p=0.019$ ) and HbA1c (odds ratio: 1.784,  $p=0.03$ ) were significant predictors of infection in pts with AV access (excluding those dialyzed via vascular catheters). However, SF, but not HbA1c, was a significant predictor of hospitalizations (odds ratio: 1.009,  $p=0.001$ ). By univariate regression analysis, SF, but not HbA1c, was associated with number of hospitalizations (beta; 0.38,  $p=0.003$ ) and duration of hospitalizations per patient-year (beta; 0.32,  $p=0.02$ ). Regression analysis also revealed that, in those pts not dialyzed via vascular catheters, SF, but not HbA1c, was significantly associated with number of episodes of infection per pt year (beta; 0.49,  $p=0.007$ ). In conclusion, this study confirms that enrollment albumin corrected SF is more strongly associated with hospitalization and infections than HbA1c in diabetic HD pts.