Hemoglobin A1c and 5-Year Survival in 2,798 Chronic Peritoneal Dialysis Patients with Diabetes

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INTRODUCTION

• Poor glycemic control in CKD patients may be associated with negative outcomes.
• In chronic peritoneal dialysis (PD) patients, the association of hemoglobin A1c and mortality may be confounded by glucose loading in PD fluid, which may lead to worsened metabolic control in PD patients.

METHODOLOGY

• We identified 2,798 diabetic PD pts who had A1c measures during their base calendar quarter; average age was 57.4 ± 13.0 yrs old and included 44% women, 20% Blacks & 16% Hispanics. A1c was categorized into 7 groups of <5%, ≥10% and 1% increments in-between.
• A J-shaped trend with significant death hazard ratios (HR) was noted. Taking A1c 5-5.9% as reference, A1c≥10% had a 5-yr death HR (and 95% confidence interval [CI]) of 1.13 (0.90-1.43), 1.43 (1.13-1.81) and 1.43 (1.12-1.82) representing the unadjusted, case-mix and additional malnutrition-inflammation complex syndrome (MICS) adjusted respectively (see figure).

RESULTS

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CONCLUSIONS

• In this large national cohort of diabetic PD patients, a hemoglobin A1c>10% appears associated with relative risk of death of 1.43 compared to those pts with a A1c of 5-6%.

KEY LEARNINGS

✓ In diabetic PD patients, very poor glycolic control, reflected by A1c>10% appears associated with 43% higher death risk compared to those with a A1c in the 5-to 6% range.
✓ Clinical trials to examine the benefit of tighter glycemic control in PD patients are indicated.

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