RESPONSE TO COMMENT ON KAMINSKI ET AL.

Assessment of Glycemic Control by Continuous Glucose Monitoring, Hemoglobin A_{1c}, Fructosamine, and Glycated Albumin in Patients With End-Stage Kidney Disease and Burnt-Out Diabetes. Diabetes Care 2024;47:267–271

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Diabetes Care 2024;47:e63–e64 | https://doi.org/10.2337/dci24-0031

We are grateful to Wang et al. (1) for their kind comments. We agree with Wang et al. that continuous glucose monitoring (CGM) represents a more accurate tool for assessment of glycemic control than glycosylated hemoglobin (HbA_{1c}) in patients with end-stage kidney disease (ESKD) who are undergoing dialysis treatment. HbA_{1c} has long been recommended as the gold standard for assessing glycemic control in patients with diabetes and chronic kidney disease (CKD) (2). However, its reliability in ESKD is reduced because of factors such as anemia, shortened erythrocyte lifespan, protein-energy wasting, and malnutrition-inflammation-cachexia syndrome (3).

Burnt-out diabetes is common, with up to 20% of patients with type 2 diabetes on dialysis experiencing "resolution of hyperglycemia," defined by an HbA_{1c} $<6.5\%$ without glucose-lowering therapy for >6 months (4). Our study indicates that despite individuals with burnt-out diabetes having a mean HbA_{1c} similar to that of individuals with ESKD without a history of diabetes (5.5% vs. 5.3%, respectively; $P = 0.26$), people with burnt-out diabetes experienced repeated episodes of hyperglycemia as determined by CGM (>180 mg/dL and >250 mg/dL) and higher glycemic variability than patients with ESKD without diabetes. In addition, many patients with ESKD without a previous history of diabetes also had multiple episodes of hyperglycemia as determined by CGM, suggesting that they, too, have undiagnosed diabetes.

When using alternative glycemic markers, we found no differences in fructosamine levels between people with burnt-out diabetes and those without a history of diabetes. In contrast, levels of glycated albumin were higher for patients with burnt-out diabetes than for those with no history of diabetes (4). Thus, our results indicate that the use of CGM and glycated albumin provides a better assessment of glycemic control than HbA_{1c} and fructosamine in patients with ESKD. Moreover, the burnt-out status reflects the inadequacy of using HbA_{1c} rather than a "true" normalization of glycemic control.

We agree with Wang et al. (1) that the results of our pilot study need to be confirmed in larger multicenter studies. Our study used the Dexcom G6 sensor, which, as pointed out by Wang et al., has a higher mean absolute relative difference in patients undergoing hemodialysis than expected but was accurate enough to make clinical decisions. Prospective studies testing the accuracy of various CGM devices and alternative glycemic markers are needed to determine the prevalence of hyperglycemia in burnt-out diabetes as well as in patients with ESKD with and without a history of diabetes.

Funding and Duality of Interest. G.E.U. is partly supported by research grants from the National Institutes of Health (NIH) (NIH/National Center for Advancing Translational Sciences UL 3UL1TR002378-05S2) from the Clinical and Translational Science Award program and the NIH and National Center for Research Resources (NIH/National Institutes of Diabetes and Digestive and Kidney Diseases [NIDDK] 2P30DK111024-06). G.E.U. has received research support (to Emory University) from Bayer, Abbott, and Dexcom and has served on advisory boards for Dexcom and GlyCare. P.V. is partly supported by NIH/NIDDK grants RO3 DK129627 and 5P30DK125013 and has received consulting fees from Lilly Pharmaceuticals. Dexcom provided the study team with CGM devices, a device reader, and adhesive patches. The Jacob's Fund for Education provided the funds for the participants' gift cards and the cost of the research study. No other potential conflicts of interest relevant to this article were reported.
Handling Editor. The journal editor responsible for overseeing the review of the manuscript was Steven E. Kahn.

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