Long-term islet transplant recipients show near-normal glucose control

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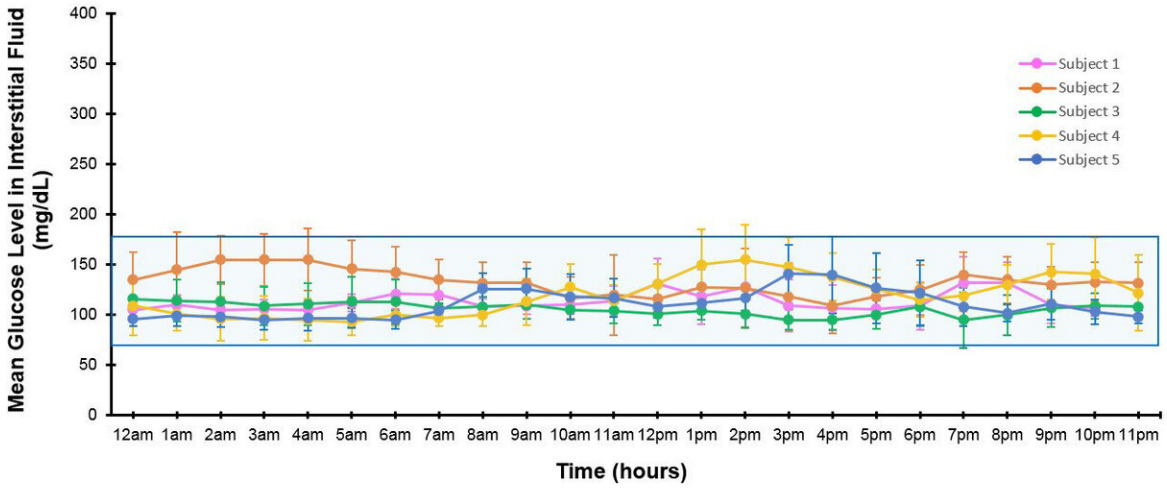

Continuous glucose monitoring tracings of 5 islet transplant recipients with long-term insulin independence. Data points represent the continuous glucose monitoring hourly average over a 7-day period. Error bars indicate standard deviations. The blue shaded area shows the glucose range of 70 - 180 mg/dL. Credit: Diabetes Research Institute/University of Miami Miller School of Medicine

Continuous glucose monitoring (CGM) evaluations in islet transplant recipients who have been insulin independent for an average of 10 years show near-normal glycemic profiles and time-in-range metrics, according to data presented by the Diabetes Research Institute at the

University of Miami Miller School of Medicine. The findings, which were accepted as a late-breaking poster at the American Diabetes Association (ADA) 79th Scientific Sessions, June 7-11, 2019 in San Francisco, CA, demonstrate that islet transplantation can be a successful long-term cell therapy for select patients with type 1 diabetes.

The DRI team evaluated five of its adult subjects who received intrahepatic (in the liver) islet transplants between 2002—2010 and have since remained insulin independent for seven to 16+ years. During their last study follow-up, the subjects completed a 7-day, non-blinded CGM to assess their glycemic profiles. Compared to current recommended CGM goals for adults with type 1 diabetes on a hybrid closed-loop system, all patients demonstrated improved CGM time-in-range, reduction in glucose variability, and prevention of hypoglycemia.

In addition, time in the more stringent glucose range of 70-140 mg/dL was 83.1%, with a mean sensor glucose (SG) value of 116 mg/dL and an average HbA1c of 5.7%. The ADA's recommended HbA1c goal is