SUPPLEMENTARY DATA

The JDRF Continuous Glucose Monitoring Study Group

Clinical Centers: Listed in order of number of patients enrolled with clinical center name, city, and state. Personnel are listed as (PI) for Principal Investigator, (I) for co-Investigator and (C) for Coordinators:

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Juvenile Diabetes Research Foundation, Inc.: Aaron J. Kowalski, Ph.D.

Operations Committee: Lori Laffel, M.D., M.P.H. (co-chair), William V. Tamborlane, M.D. (co-chair), Roy W. Beck, M.D., Ph.D., Aaron J. Kowalski, Ph.D., Katrina J. Ruedy, M.S.P.H.

Data and Safety Monitoring Board: Ruth S. Weinstock, M.D., Ph.D. (chair), Barbara J Anderson, Ph.D.; Davida Kruger, M.S.N., A.P.R.N.; Lisa LaVange, Ph.D.; Henry Rodriguez, M.D.

SUPPLEMENTARY DATA

Supplementary Table 1. Spearman Correlation of MG/A1c ratio by subgroups (N=558)

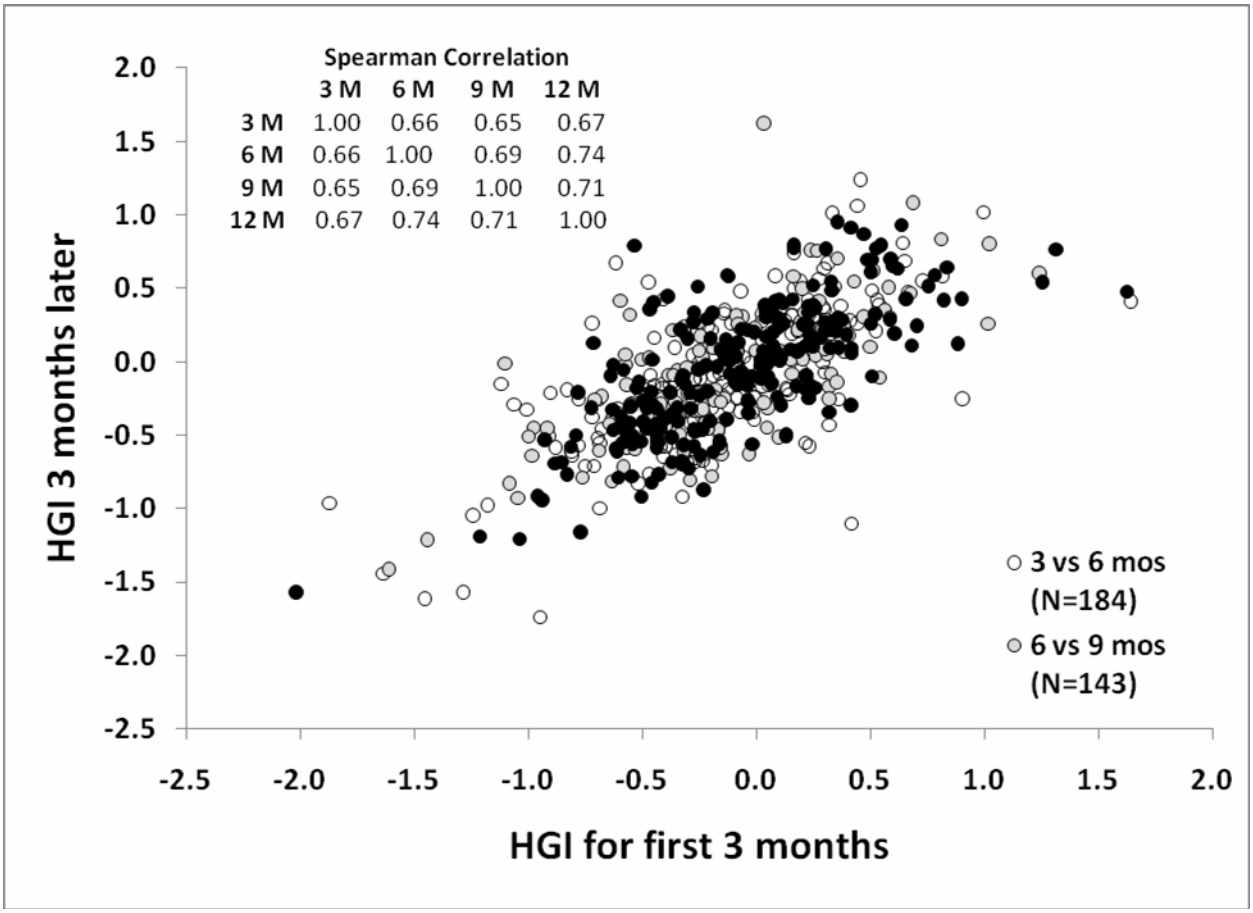
	3 M vs 6 M	**6 M vs 9 M**	**9 M vs 12 M**
Overall	0.75 (N=184)	0.70 (N=143)	0.79 (N=231)
Age *(years)*			
8-14	0.57 (N=54)	0.60 (N=38)	0.71 (N=48)
15-24	0.64 (N=49)	0.46 (N=29)	0.65 (N=54)
≥25	0.78 (N=81)	0.75 (N=76)	0.78 (N=129)
Treatment Group			
RT-CGM	0.75 (N=184)	0.70 (N=143)	0.72 (N=115)
Control	NA	NA	0.83 (N=116)
Gender			
Female	0.67 (N=99)	0.72 (N=75)	0.80 (N=128)
Male	0.83 (N=85)	0.69 (N=68)	0.76 (N=103)
CGM Device *			
DexCom	0.76 (N=38)	0.78 (N=23)	0.72 (N=45)
Navigator	0.79 (N=41)	0.69 (N=32)	0.74 (N=45)
Paradigm	0.74 (N=100)	0.70 (N=85)	0.83 (N=134)

*Five epochs in 3 vs. 6 months, 3 in 6 vs. 9 months, and 7 in 9 vs. 12 months were excluded due to the switch of CGM device type during the 3-month period.

SUPPLEMENTARY DATA

Supplementary Figure 1: Comparison of the Hemoglobin Glycation Index (HGI) calculated from JDRF RCT data (currently under review) from the same subject at different times

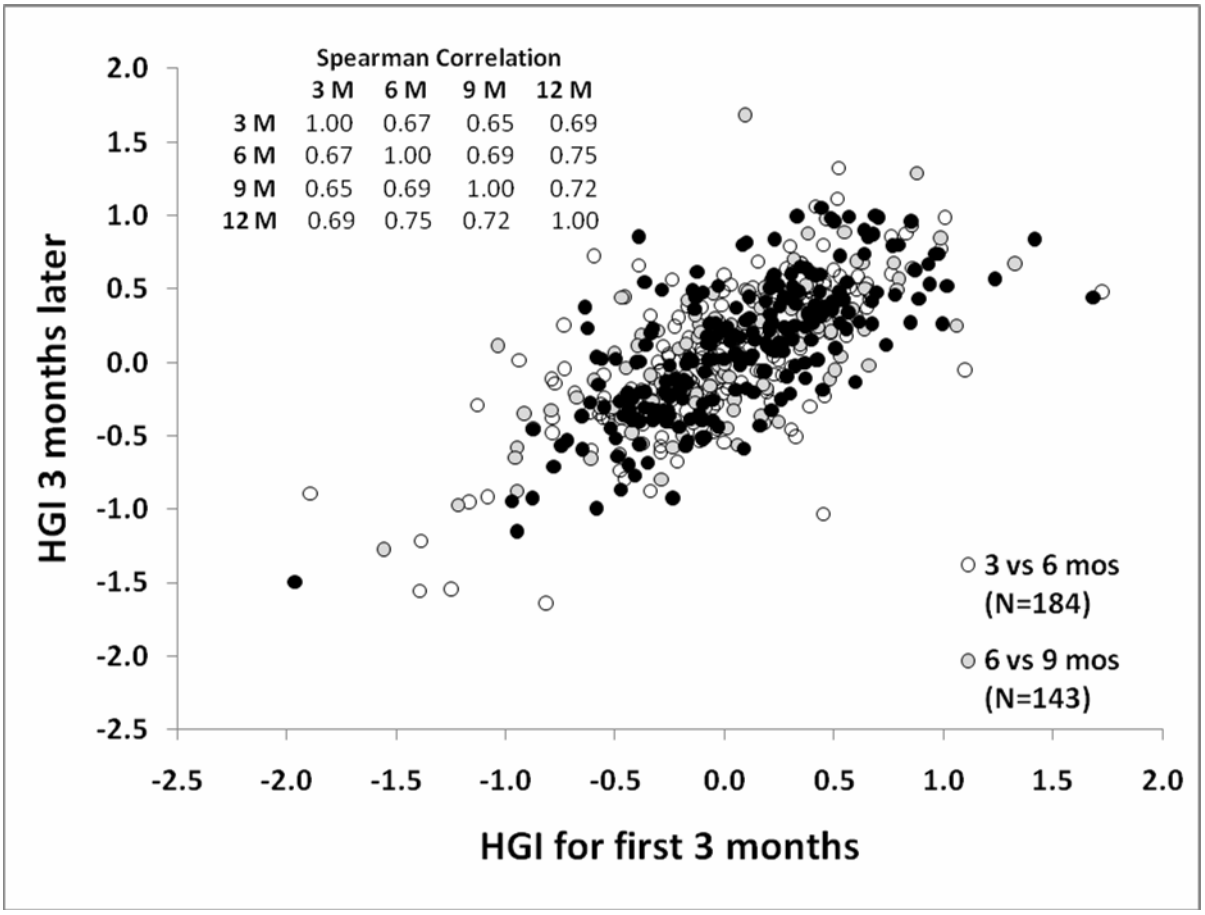
The HGI at each time point was calculated as the difference between the actual A1c and the predicted A1c from model A1c = 0.026 * mean glucose + 3.069. The HGI of subjects in 3-month periods were compared. The HGI at the earlier time is on the horizontal axis and the HGI 3 months later on the vertical axis. Spearman correlation values are given for all four times.



SUPPLEMENTARY DATA

Supplementary Figure 2: Comparison of the Hemoglobin Glycation Index (HGI) calculated from ADA equation from the same subject at different times

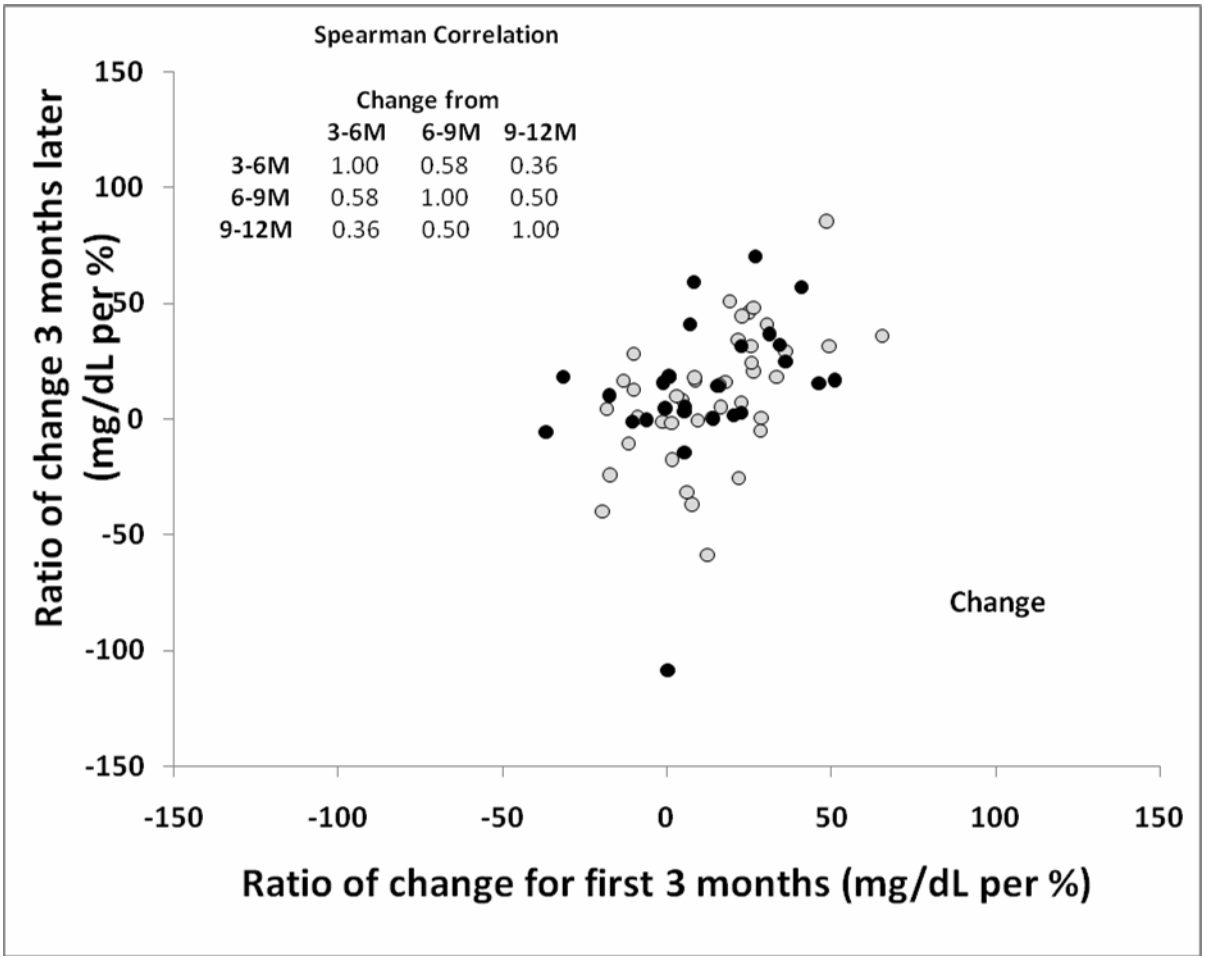
The HGI at each time point was calculated as the difference between the actual A1c and the predicted A1c from model A1c = 0.029 * mean glucose + 2.455 (12). Study originally reported slope from a model with MG as the dependent variable (i.e., MG=28.7 x A1c -46.7, R2=0.84). Values were converted to equivalent slope and intercept with A1c as the dependent variable using the reported R2 value. The HGI of subjects in 3-month periods were compared. The HGI at the earlier time is on the horizontal axis and the HGI 3 months later on the vertical axis. Spearman correlation values are given for all four times



SUPPLEMENTARY DATA

Supplementary Figure 3: Comparison of the ratio of the change in MG to the change in A1c between successive visits from the same subject at different times

For each subject the change in MG from the previous visit was divided by the change in A1c over that same timeframe (limited to epochs where A1c changed by at least ±0.3%). The ratio at the earlier pair of visits is on the horizontal axis and the same ratio 3 months later on the vertical axis. Spearman correlation values are given for three pairs of successive visits (3-6M, 6-9M and 9-12M).

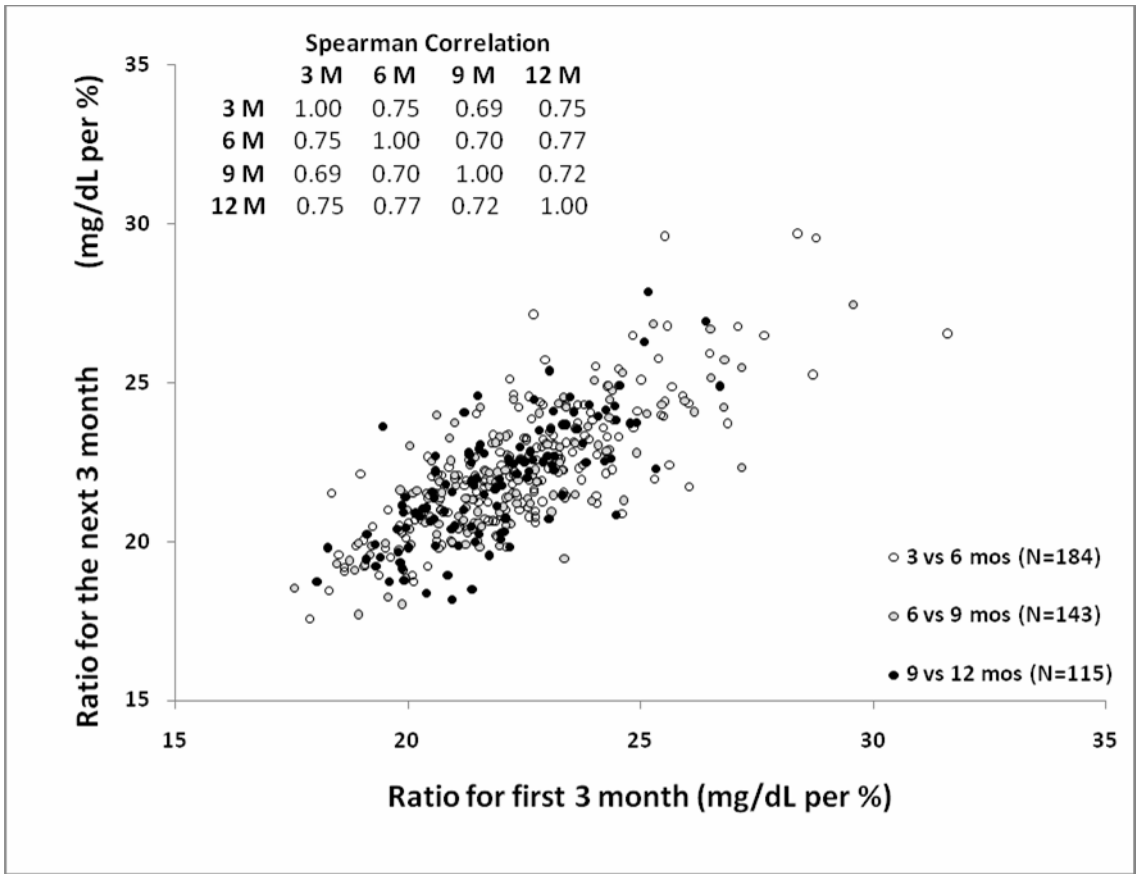


SUPPLEMENTARY DATA

Supplementary Figure 4: Comparison of the MG/A1c ratio from the same subject at different times separately for treatment groups.

This is a replication of Figure in manuscript for each treatment group. The MG/A1c ratios of subjects in 3-month periods were compared. The ratio at the earlier time is on the horizontal axis and the ratio 3 months later on the vertical axis. Spearman correlation values are given for all four times

4a. CGM Group



SUPPLEMENTARY DATA

4b. Control Group