

SUPPLEMENTARY DATA

Supplementary Table S1. Characteristics of TODAY participants (n=397) vs. obese controls (n=133)*

Variable	Obese Controls, n=133	TODAY, n=397	Unadjusted P value
Age (years)	22.6 (3.7)	20.7 (2.5)	p<0.0001
Non-Caucasian (%)	63.9	80.3	p=0.0001
Male (%)	31.6	35.3	p=0.4364
Body Mass Index (kg/m ²)	37.9 (8.8)	36.6 (8.1)	p=0.1292
Smoking (%)	11.4	20.2	p=0.0165
Hemoglobin A1c (%)	5.1 (0.5)	8.8 (2.9)	p<0.0001
LDL cholesterol (mg/dL)	106.7 (27.6)	98.1 (30.7)	p=0.0063
Systolic Blood Pressure (mmHg)	117.1 (11.7)	118.6 (12.3)	p=0.2380
Diastolic Blood Pressure (mmHg)	74.6 (10.3)	73.2 (9.8)	p=0.1412

* P-value for testing differences between obese controls and TODAY participants derived from unadjusted regression models for the continuous measures or from Chi-square for the categorical measures.

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Supplementary Table S2. Participant Characteristics and Arterial Stiffness in TODAY participants with (n=32) vs. without Cardiac Autonomic Dysfunction (n=365)*

	No Cardiac autonomic dysfunction (n=365, 91.9%)	Cardiac autonomic dysfunction (n=32, 8.1%)	Unadjusted P-value
Characteristics			
Type 2 diabetes duration (years)	7.6 ± 1.5	8.2 ± 1.5	p=0.0001
Body Mass Index (kg/m ²)	36.4 ± 7.9	38.8 ± 9.2	p=0.1175
Estimated GFR	131.0 ± 24.0	134.0 ± 24.3	p=0.5834
UACR ≥ 30 mg/g (%)	25.4%	43.3%	p=0.0424
UACR ≥ 300 mg/g (%)	4.6%	20.0%	p=0.0051
Hypertension (%)	51.4%	76.7%	p=0.0063
On anti-hypertensive medications (%)	42.7%	56.7%	p=0.1428
Arterial Stiffness			
PWV carotid femoral (m/s)	6.3 ± 1.3	7.5 ± 3.0	p=0.0001
PWV carotid radial (m/s)	7.8 ± 1.3	7.8 ± 1.4	p=0.9026
PWV femoral foot (m/s)	8.4 ± 2.4	8.9 ± 2.6	p=0.3843
AIx (%)	8.2 ± 11.5	11.4 ± 10.5	p=0.1354
BrachD (mm/mmHg)	6.1 ± 1.1	5.9 ± 1.2	p=0.3373

* P-value for testing differences by Cardiac Autonomic Dysfunction status derived from unadjusted regression models for the continuous measures or from Chi-square for the categorical measures; GFR: glomerular filtration rate; UACR: urine albumin-creatinine ratio.

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Supplementary Table S3. Unadjusted associations between HRV parameters and covariates of interest, n=397*

Variable	SDNN (ms)	RMSSD (ms)	PNN50 (%)	LF:HF Ratio
Overall	58.1 ± 29.6	53.2 ± 36.7	26.3 ± 23.7	1.4 ± 1.7
Treatment Group, p-value	0.2580	0.1767	0.2691	0.1870
Met only	55.8 ± 28.6	49.7 ± 34.6	24.3 ± 23.0	1.6 ± 1.5
Met+Rosi	56.1 ± 26.8	50.5 ± 31.4	25.3 ± 22.7	1.3 ± 1.9
Met+Lifestyle	62.3 ± 32.8	59.3 ± 42.6	29.1 ± 25.2	1.3 ± 1.5
Loss of glycemic control, p-value	<u><0.0001</u>	<u><0.0001</u>	<u><0.0001</u>	0.3873
No	70.0 ± 30.3	65.6 ± 37.7	35.8 ± 24.6	1.4 ± 2.1
Yes	52.1 ± 27.4	47.0 ± 34.6	21.6 ± 21.8	1.4 ± 1.4
Time-weighted HbA1c, p-value	<u><0.0001</u>	<u><0.0001</u>	<u><0.0001</u>	0.1939
Pearson correlation (rho)	-0.27	-0.26	-0.30	0.06
Type 2 diabetes duration (years), p-value	<u>0.0117</u>	<u>0.0082</u>	<u>0.0029</u>	0.1270
Pearson correlation (rho)	-0.13	-0.13	-0.15	0.08

* P-values from unadjusted general linear regression model are presented for all measures except PNN50. RMSSD, and LF:HF power ratio were log transformed prior to testing due to skewed distribution. A rank regression model was used for PNN50 due to deviation from normality. Pearson (Spearman for PNN50) correlation coefficients are presented for continuous covariates and unadjusted means ± SD for each subgroup are shown for categorical covariates. Significant associations (p<0.05) are bolded, underlined and italicized.

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