

Supplementary Table 1. Anthropometric, clinical, metabolic, and neurological characteristics of patients with T1DM according to the CAN state

Characteristic	No CAN (n=50)	Early CAN (n=13)	Confirmed CAN (n=16)	P value
Sex, males:females	22:28	5:8	3:13	0.170
Age, yr	40.0 (33.0–48.0)	42.0 (30.8–59.0)	44.0 (40.0–51.0)	0.153
Disease duration, yr	23.0 (14.0–33.0)	20.0 (15.0–38.7)	27.5 (23.5–32.5)	0.309
BMI, kg/m ²	25.2 (23.0–27.0)	24.3 (21.9–25.5)	23.8 (21.5–24.5)	0.104
HbA1c, %	7.4 (6.7–8.2)	7.4 (6.5–7.9)	8.0 (6.9–8.9)	0.252
HbA1c, mmol/mol	57.0 (50.5–66.5)	57.0 (48.0–63.0)	64.5 (53.0–74.5)	0.207
Total cholesterol, mg/dL	179.5 (158.0–202.0)	176.0 (156.7–200.2)	166.0 (149.5–188.0)	0.607
LDL cholesterol, mg/dL	96.1 (77.0–118.2)	94.4 (71.0–113.6)	97.4 (82.2–108.0)	0.915
HDL cholesterol, mg/dL	60.5 (48.0–72.0)	59.0 (52.0–66.5)	51.0 (41.7–67.0)	0.439
Triglycerides, mg/dL	70.0 (58.0–97.2)	85.0 (69.7–92.5)	86.0 (64.2–134.5)	0.518
With retinopathy, %	15 (30.0)	7 (53.8)	11 (68.7)	0.014 ^a
With microalbuminuria, %	2/44 (4.5)	4 (30.8)	4/14 (28.6)	0.013
eGFR, mL/min/1.73 m ²	104.4 (88.9–114.1)	92.3 (79.2–110.0)	86.3 (68.9–101.1)	0.048
With chronic kidney disease, %	2/41 (4.9)	4 (30.8)	4/14 (28.6)	0.018
Casual systolic BP, mm Hg	119.0±16.8	122.2±12.4	129.7±18.7	0.026 ^{ab}
Casual diastolic BP, mm Hg	70.7±9.9	69.8±11.7	75.1±11.4	0.152
With hypertension, %	16 (32.0)	5 (38.5)	10 (62.5)	0.098
With cardiovascular disease, %	3 (6.0)	2 (15.4)	4 (25.0)	0.124
With peripheral vascular disease, % ^h	3 (6.4)	2 (15.4)	5 (31.2)	0.054
Alcohol consumption, % ⁱ	10 (20.4)	3 (15.4)	2 (12.5)	0.679
Current smokers, % ⁱ	10 (20.4)	5 (38.5)	6 (37.5)	0.248
Regular physical activity, % ^j	17 (34.7)	3 (23.1)	6 (40.0)	0.612
CARTs score	0.0 (0–1.0) ^e	2.0 (2.0–3.0)	5.0 (4.0–6.0)	<0.0001 ^{ab}
Expiration:inspiration ratio	1.39 (1.30–1.57) ^c	1.21 (1.10–1.41) ^g	1.07 (1.07–1.10)	<0.0001 ^{ab}
30:15 ratio	1.28 (1.18–1.46) ^d	1.12 (1.09–1.17)	1.02 (1.02–1.07)	<0.0001 ^{ab}
Valsalva ratio	1.69±0.28	1.61±0.35 ^g	1.21±0.12	<0.0001 ^{ab}
Orthostatic hypotension, mm Hg	10.0 (0–15.0)	15.0 (7.0–18.5)	22.0 (10.0–37.5)	<0.0001 ^{ab}
With DPN, %	14 (28.0)	8 (61.5)	16 (100)	<0.0001 ^a
MNSI	1.0 (0–3.0)	2.0 (1.0–3.5) ^f	6.0 (3.0–8.0)	<0.0001 ^{ab}
MDNS	2.0 (2.0–4.0)	3.0 (2.0–5.2) ^f	10.0 (5.0–13.0)	<0.0001 ^{ab}
VPT hallux, V	10.7 (7.7–13.2) ^c	14.5 (10.7–20.1) ^f	35.4 (20.9–45.4)	<0.0001 ^{ab}
Warm perception threshold, °C	33.6 (32.6–35.8)	34.9 (33.2–36.0)	38.4 (33.7–44.9)	0.009 ^{ab}
Cold perception threshold, °C	30.6 (29.6–31.6)	30.6 (29.0–31.6)	25.6 (23.3–30.5)	0.011 ^{ab}

Values are presented as median (interquartile range), number (%), or mean ± standard deviation. Analysis of variance (parametric) and Kruskal-Wallis test (non-parametric) as tests of significance for means with *post hoc* Bonferroni correction and Dunn's test and the chi-square test for categorical variables were used.

T1DM, type 1 diabetes mellitus; CAN, cardiovascular autonomic neuropathy; BMI, body mass index; HbA1c, glycosylated hemoglobin; LDL, low-density lipoprotein; HDL, high-density lipoprotein; eGFR, estimated glomerular filtration rate; BP, blood pressure; CART, cardiovascular autonomic reflex test; DPN, diabetic polyneuropathy; MNSI, Michigan Neuropathy Screening Instrument; MDNS, Michigan Diabetic Neuropathy Score; VPT, vibration perception threshold.

^aSignificant P value; ^bNo CAN vs. confirmed CAN: corrected P; No CAN vs. early CAN: ^ccorrected P<0.05, ^dcorrected P<0.001, ^ecorrected P<0.0001; Early CAN vs. confirmed CAN: ^fcorrected P<0.05, ^gcorrected P<0.01; Missing data for ^hno CAN patients (n=3), ⁱno CAN patient (n=1), ^jno CAN (n=1) and confirmed CAN (n=1) patient.