

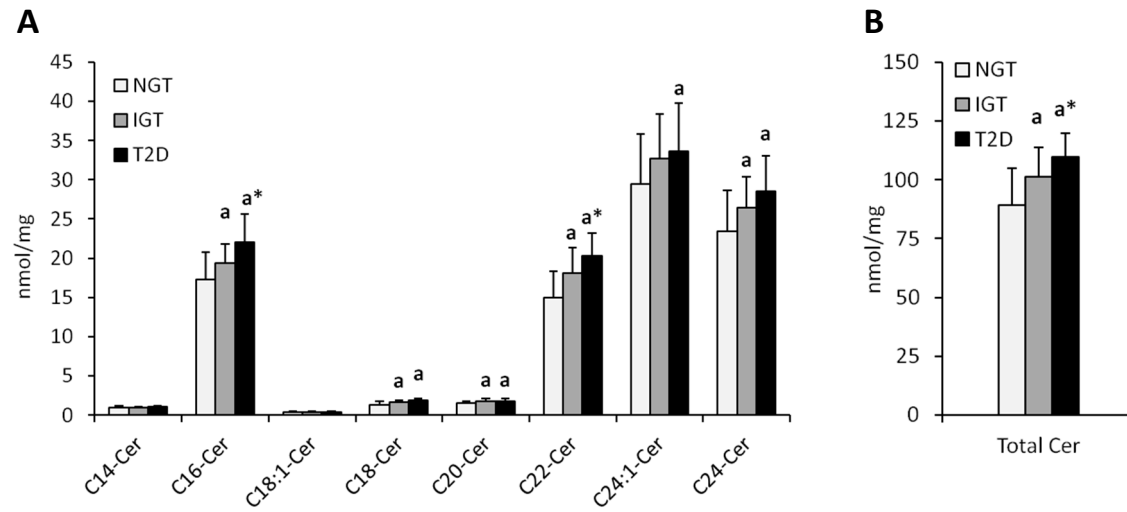


Figure S1. Concentration of individual (Panel A) and total (Panel B) hepatic ceramides in combined group. NGT – normal glucose tolerance group, IGT – impaired glucose tolerance group; T2D – type 2 diabetes group. Values are mean $\pm$ standard deviation; a – $p < 0.05$ vs. NGT, * – $p < 0.05$.

Table S1. Correlations between individual hepatic ceramide molecular species and selected anthropometric measurements in combined (both males and females) group.

	C14:0-Cer	C16:0-Cer	C18:1-Cer	C18:0-Cer	C20-Cer	C22:0-Cer	C24:1-Cer	C24:0-Cer	Total Cer
OGTT at 0'	r=0.0451 p=0.610	r=0.3839^a p=0.000	r=0.-1162 p=0.188	r=0.2912^a p=0.001	r=0.3006 p=0.001	r=0.4272^a p=0.000	r=0.1601 p=0.069	r=0.2634 p=0.002	r=0.3536^a p=0.000
OGTT at 120'	r=0.0956 p=0.279	r=0.4575^a p=0.000	r=0.-0034 p=0.969	r=0.4207^a p=0.000	r=0.3987 p=0.000	r=0.4649^a p=0.000	r=0.2033 p=0.020	r=0.2580 p=0.003	r=0.4020^a p=0.000
HbA1c	r=0.0929 p=0.293	r=0.3922^a p=0.000	r=0.-0924 p=0.296	r=0.3718^a p=0.000	r=0.3277 p=0.000	r=0.4091^a p=0.000	r=0.1614 p=0.067	r=0.2514 p=0.004	r=0.3513^a p=0.000
BMI	r=0.1705 p=0.052	r=0.1350 p=0.126	r=0.3184^a p=0.000	r=0.1979 p=0.024	r=0.1867 p=0.033	r=0.0951 p=0.282	r=0.1626 p=0.065	r=0.0750 p=0.396	r=0.1559 p=0.077
FAT% (DXA)	r=0.4354^a p=0.000	r=0.1924 p=0.028	r=0.5685^a p=0.000	r=0.0205 p=0.817	r=0.1236 p=0.161	r=0.0725 p=0.412	r=0.0940 p=0.288	r=0.0077 p=0.930	r=0.1150 p=0.193
HOMA-IR	r=0.-0928 p=0.369	r=0.1908 p=0.063	r=0.-0489 p=0.636	r=0.2321 p=0.023	r=0.2752 p=0.007	r=0.1708 p=0.096	r=0.0989 p=0.338	r=0.1303 p=0.206	r=0.1720 p=0.094

Values show Pearson's r correlation coefficient together with correlation p-value. Correlations in bold type are significant with $p < 0.00095$ (p value of 0.05 after Bonferroni correction for multiple comparisons); OGTT - oral glucose tolerance test (values for 0min and 120min); HbA1c –glycated hemoglobin; BMI – body mass index; FAT% (DXA) – percentage of body fat as measured by dual-energy X-ray absorptiometry; HOMA-IR – homeostatic model assessment of insulin resistance; a - $p < 0.00095$.

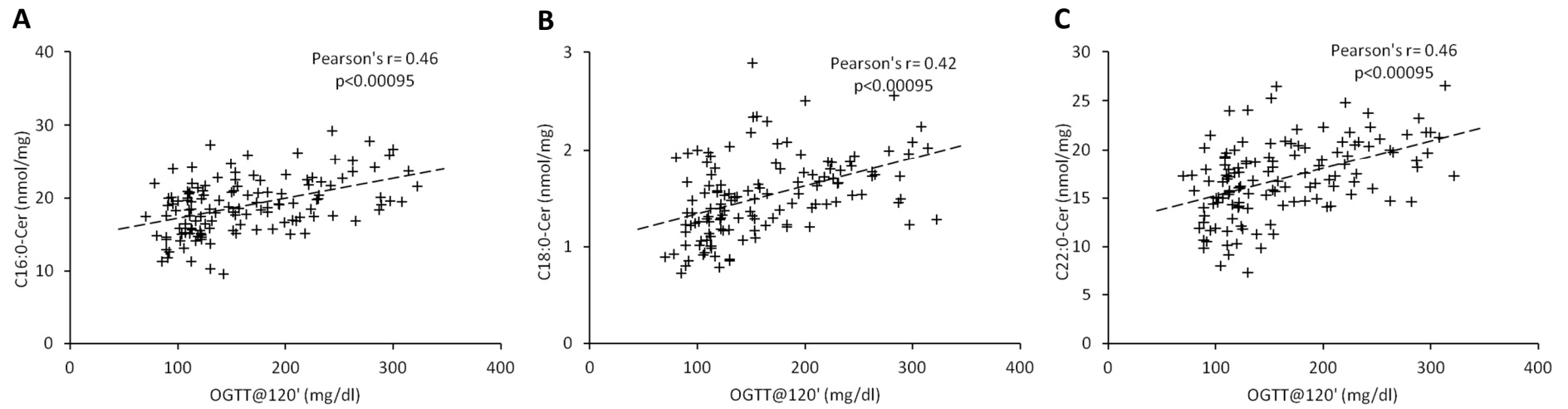


Figure S2. Correlation of C16:0 (Panel A), C18:0-Cer (Panel B) and C22:0-Cer (Panel C) with blood plasma glucose concentration at 120 min of OGTT test in combined group. Pearson's r correlation coefficient and correlation significance is given in graph inserts. OGTT – oral glucose tolerance test.