

Supplementary Table 1. Comparison of serum levels of the newer metabolic markers and vascular indices

Variable	MS (n=12)	Non-MS (n=66)	P-value (MS vs. non-MS)	Non-MS-N subgroup (n=37)	P-value (MS vs. non-MS-N)	Non-MS-O subgroup (n=29)	P-value (MS vs. non-MS-O)
Metabolic markers							
FGF21 (pg/mL)	127.7 (75.9-188.5)	60.1 (20.0-97.6)	0.003	30.4 (13.9-92.6)	0.002	72.3 (29.3-115.2)	0.02
Leptin (ng/mL)	18.1 (11.0-34.8)	7.5 (1.8-16.5)	0.003	2.8 (1.1-8.8)	<0.001	16.4 (8.1-27.6)	0.3
Adiponectin (µg/mL)	6.4 (5.5-8.7)	8.4 (6.5-9.3)	0.2	8.5 (6.8-9.6)	0.1	8.0 (6.0-9.1)	0.4
Leptin/adiponectin	3.2 (1.2-6.0)	1.0 (0.2-2.2)	0.005	0.4 (0.1-1.4)	<0.001	2.2 (1.0-3.5)	0.3
FGF21/adiponectin	18.5 (8.0-33.5)	6.8 (2.2-14.2)	0.007	4.5 (1.6-12.0)	0.003	8.2 (4.1-20.8)	0.06
IGFBP1 (ng/mL)	1.5 (1.2-2.0)	2.3 (1.5-6.0)	0.03	2.8 (1.8-7.9)	0.004	2.0 (1.1-3.6)	0.3
Vascular indices							
FMD normalized	0.06 (0.03-0.07)	0.07 (0.04-0.1)	0.06	0.09 (0.04-0.12)	0.03	0.06 (0.04-0.10)	0.25
Max cIMT (mm)	0.46 (0.43-0.51)	0.45 (0.45-0.48)	0.6	0.45 (0.42-0.48)	0.47	0.47 (0.44-0.49)	0.98

Values are presented as median (interquartile range).

MS, metabolic syndrome; non-MS, without MS; non-MS, without MS; non-MS-N, children with normal body mass index (BMI); non-MS-O, children with increased BMI (obese/overweight); FGF21, fibroblast growth factor 21; IGFBP1, insulin-like growth factor binding protein-1; FMD, flow-mediated dilation; cIMT, carotid intima-media thickness.

Comparisons between groups were performed using the Mann-Whitney test.

Supplementary Table 2. Correlations among serum biomarkers, metabolic indices and vascular indices

Comparison	rho	P-value
Normalized FMD vs. FGF21	-0.24	0.035
Normalized FMD vs. Leptin	-0.34	0.002
Normalized FMD vs. Adiponectin	0.04	0.76
Normalized FMD vs. IGFBP1	0.17	0.15
Normalized FMD vs. HOMA-IR	-0.35	0.002
Normalized FMD vs. Leptin/Adiponectin ratio	-0.35	0.002
Normalized FMD vs. FGF21/Adiponectin ratio	-0.21	0.063
FGF21 vs. Leptin	0.31	0.006
FGF21 vs. Adiponectin	-0.17	0.15
FGF21 vs. IGFBP1	-0.29	0.01
FGF21 vs. HOMA-IR	0.40	<0.001
Leptin vs. Adiponectin	-0.28	0.014
Leptin vs. IGFBP1	-0.61	<0.001
Leptin vs. HOMA-IR	0.54	<0.001
IGFBP1 vs. HOMA-IR	-0.44	<0.001
MS Cluster Score vs. FGF21	0.32	0.01
MS Cluster Score vs. Leptin	0.29	0.02
MS Cluster Score vs. HOMA-IR	0.46	<0.001
Carotid IMT vs. FGF21	-0.07	0.64
Carotid IMT vs. Leptin	-0.04	0.75
Carotid IMT vs. HOMA-IR	-0.13	0.36

Correlations were tested using Spearman rho correlation coefficient.

FMD, flow-mediated dilation, FGF21, fibroblast growth factor 21; IGFBP1, insulin-like growth factor binding protein-1; HOMA-IR, homeostasis model assessment-insulin resistance; MS; metabolic syndrome; IMT, intima-media thickness.