

Supplementary Table 1. Anthropometrical and biochemical characteristics of the studied cohort and their changes after 10-weeks nutritional intervention in the different groups

	control (n=15)		LIP (n=16)		EPA (n=11)		EPA+LIP (n=15)	
	baseline	endpoint	baseline	endpoint	baseline	endpoint	baseline	endpoint
Body weight (kg)	84.4 ± 2.9	79.3 ± 2.7***	84.0 ± 3.3	76.9 ± 3.1***	88.7 ± 2.7	83.4 ± 3.1***	82.6 ± 3.3	75.9 ± 2.8***
BMI (kg/m ²)	32.4 ± 1.3	30.4 ± 1.2***	32.2 ± 1.0	29.6 ± 0.9***	32.3 ± 0.8	30.2 ± 0.9**	32.0 ± 0.9	29.4 ± 0.8***
Fat mass (kg)	38.9 ± 1.9	34.8 ± 1.7***	39.0 ± 2.5	33.4 ± 2.4***	40.9 ± 1.5	36.4 ± 1.7***	37.8 ± 2.1	32.1 ± 1.7***
Fat free mass (kg)	45.6 ± 1.5	44.6 ± 1.5**	45.1 ± 1.1	43.5 ± 1.1***	47.8 ± 1.5	46.9 ± 1.7	44.7 ± 1.4	43.8 ± 1.4*
Total Cholesterol (mg/dL)	192.5 ± 9.6	181.9 ± 9.7*	194.5 ± 6.9	167.9 ± 7.2***	184.0 ± 9.9	166.4 ± 10.1*	199.5 ± 10.8	180.0 ± 9.8**
Triglycerides (mg/dL)	85.5 ± 10.6	74.1 ± 7.6	97.5 ± 13.1	78.2 ± 7.9	86.4 ± 10.0	76.5 ± 13.3	85.3 ± 11.1	69.1 ± 7.8*
FFAs (mmol/L)	0.51 ± 0.1	0.52 ± 0.1	0.53 ± 0.1	0.50 ± 0.0	0.51 ± 0.0	0.59 ± 0.0*	0.58 ± 0.0	0.61 ± 0.1
β-hydroxybutyrate (mmol/L)	0.4 ± 0.1	0.3 ± 0.1	0.4 ± 0.1	0.4 ± 0.1	0.2 ± 0.1	0.5 ± 0.1*	0.3 ± 2.4	0.4 ± 0.1
Glucose (mg/dL)	91.5 ± 1.9	87.3 ± 1.3**	89.46 ± 2.0	89.6 ± 2.0	89.5 ± 2.1	87.9 ± 2.9	94.4 ± 2.4	90.2 ± 2.1**
Insulin (mU/L)	9.2 ± 2.3	5.8 ± 1.0*	7.2 ± 0.8	4.9 ± 0.7*	6.7 ± 1.2	6.6 ± 1.6	10.3 ± 2.5	6.5 ± 1.6***
HOMA-IR	2.0 ± 0.5	1.2 ± 0.2**	1.5 ± 0.2	1.1 ± 0.1*	1.5 ± 0.3	1.4 ± 0.4	2.3 ± 0.6	1.4 ± 0.4***
AST (IU/L)	15.7 ± 0.8	14.9 ± 0.7	14.5 ± 0.8	18.2 ± 1.56	19.9 ± 1.7	16.2 ± 1.1	18.2 ± 1.2	16.2 ± 0.9
ALT (IU/L)	19.0 ± 2.0	15.1 ± 1.3*	15.1 ± 1.6	21.6 ± 3.18*	23.7 ± 4.4	20.37 ± 2.5	18.8 ± 1.5	17.8 ± 2.2
AST/ALT ratio	0.9 ± 0.1	1.1 ± 0.1**	1.0 ± 0.1	1.0 ± 0.1***	1.0 ± 0.1	0.9 ± 0.1**	1.0 ± 0.1	1.0 ± 0.1***
Leptin (ng/mL)	24.2 ± 1.8	17.3 ± 1.8***	22.6 ± 2.4	13.7 ± 1.8***	19.4 ± 2.1	18.7 ± 2.0	18.9 ± 1.5	14.6 ± 1.6**
Adiponectin (µg/mL)	13.9 ± 1.6	13.9 ± 1.5	12.5 ± 0.6	11.9 ± 0.8	11.7 ± 1.1	11.1 ± 1.2*	13.8 ± 1.1	12.3 ± 1.0
HMW adiponectin (µg/mL)	2.4 ± 0.4	2.3 ± 0.4	2.1 ± 0.3	1.8 ± 0.2	2.3 ± 0.5	1.9 ± 0.4	2.0 ± 0.2	2.0 ± 0.2
HMW / total adiponectin	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0
FGF21 (pg/mL)	287.4 ± 20.5	252.4 ± 27.7	306.9 ± 23.6	295.1 ± 22.6	280.4 ± 26.8	288.4 ± 17.7	273.1 ± 25.0	287.5 ± 25.4

Data are means ± SEM. **P*<0.05, ***P*<0.01, ****P*<0.001 vs. basal levels. Analysis was performed with paired *t* test (for variables with normal distribution) and Wilcoxon's test (for variables with non-normal distribution). LIP, lipoic acid; EPA, eicosapentaenoic acid.