

Table 1. Characteristics of study population according to tertiles of dietary inflammatory index (DII) score

Characteristics	Tertiles of DII score			P-value
	T ₁ (n=58)	T ₂ (n=58)	T ₃ (n=59)	
E-DII score	-3.88, -0.58	-0.59, 1.08	1.09, 3.84	
Age (years)*	57.4±5.8	56.5±5.7	55.9±5.0	0.32 [†]
Body weight (kg)*	74.6±10.1	74.4±10.1	74.5±11.9	0.99 [†]
Height (cm)*	155.9±6.0	154.6±4.4	155.9±6.5	0.34 [†]
BMI (kg/m ²)*	30.6±3.7	31.1±4.2	30.6±4.5	0.78 [†]
WC (cm)*	104.6±11.2	104.5±11.5	103.8±12.8	0.92 [†]
Total PA (MET-min/week) [‡]	534.7 (199.5, 1131.7)	460.0 (295.2, 840.0)	512.7 (198.0, 993.0)	0.94 ^x
Educational level (years) [‡]	5.0 (0.0, 6.0)	5.0 (1.7, 6.0)	4.0 (0.0, 6.0)	0.58 ^x
Marital status [§]				
Single/divorced/widowed	9 (5.1)	12 (6.9)	9 (5.1)	0.68 [¶]
Married	49 (28)	46 (26.3)	50 (28.6)	
SES ^{§,}				
Low	39 (22.2)	36 (20.6)	39 (22.3)	0.82 [¶]
Average/high	19 (10.9)	22 (12.6)	20 (11.4)	
Dietary supplement use [§]				
Yes	44 (25.2)	35 (20)	32 (18.3)	0.01 [¶]
No	14 (8.0)	23 (13.1)	27 (15.4)	
Lipid-lowering medication [§]				
Yes	19 (10.9)	12 (6.9)	14 (8.0)	0.30 [¶]
No	39 (22.3)	46 (26.3)	45 (25.7)	
Current chronic diseases				

Yes	48 (27.4)	47 (26.9)	44 (25.1)	0.51 [¶]
No	10 (5.7)	11(6.3)	15 (8.6)	

BMI, body mass index; WC, waist circumference; PA, physical activity; SES, socioeconomic status.

*Values are means±SD.

†P-values obtained using One-way ANOVA test.

‡Values are median (interquartile range).

×P-values obtained using Kruskal-Wallis test.

§Number of participants having the characteristic (%).

||Socioeconomic status represents having ≤3 living items for low status,4 to 6 living items for average status, and 7 to 9 living items at home for high status.

¶P-values obtained using Chi-square test.

Table 2. Dietary intakes of the study population according to the tertiles of dietary inflammatory index (DII) score*

	Tertiles of the DII score			P-value
	T ₁ (n=58)	T ₂ (n=58)	T ₃ (n=59)	
DII score	-3.88, -0.58	-0.59, 1.08	1.09, 3.84	
Energy (kcal/d) [†]	2173.6±484.4	2212.9±405.7	2440.7±459.8	0.003 ^x
Carbohydrates (g/d) [†]	348.3±21.7	345.0±30.2	331.2±44.8	0.01 ^x
Total fat (g/d) [†]	69.5±8.6	73.4±13.7	79.5±20.2	0.002 ^x
Proteins (g/d) [†]	88.6±8.9	79.7±10.2	78.0±10.4	<0.001 ^x
SFA (g/d) [†]	18.9±2.6	20.4±3.5	22.9±5.7	<0.001 ^x
MUFA (g/d) [‡]	22.3 (20.8, 24.8)	24.1 (20.6, 27.5)	25.0 (20.4, 30.0)	0.08
PUFA (g/d) [‡]	15.5 (14.2, 17.4)	16.0 (13.8, 21.0)	14.9 (12.5, 19.4)	0.5
n-3 Fatty acids (g/d) [†]	1.2±0.4	1.2±0.4	1.1±0.5	0.5 ^x
n-6 Fatty acids (g/d) [†]	13.2 (11.7, 14.8)	13.7 (11.7, 18.7)	13.1 (11.0, 16.8)	0.3
β-Carotene (μg/d) [†]	6746.6±2178.5	4538.0±1707.5	3437.0±1605.4	<0.001 ^x
Vitamin C(mg/d) [†]	242.5±83.7	189.3±75.1	164.4±82.8	<0.001 ^x
Vitamin E(mg/d) [†]	13.8±2.9	13.8±3.9	13.8±4.0	0.9 ^x
Fiber (g/d) [†]	66.3±13.6	59.7±15.9	50.9±18.8	<0.001 ^x
Food groups				
Red and processed meat (g/d) [‡]	14.0 (8.7, 18.8)	12.2 (4.9, 19.9)	14.5 (8.5, 24.5)	0.3
High-fat dairy (g/d) [‡]	38.4 (31.8, 59.5)	34.9 (31.1, 52.5)	58.8 (32.9, 194.7)	0.007
Low fat dairy (g/d) [‡]	254.7 (112.3, 350.4)	238.3 (98.4, 330.0)	201.4 (85.7, 446.6)	0.9
French fries (g/d) [‡]	1.3 (0.0, 4.3)	1.5 (0.0, 4.3)	1.3 (0.0, 4.3)	0.9
Hydrogenated fats (g/d) [‡]	0.7 (0.00, 9.1)	5.2 (0.0, 22.5)	11.2 (1.8, 22.5)	0.001
Carbonated drinks (g/d) [‡]	0.0 (0.0, 6.6)	2.2 (0.0, 8.3)	6.6 (0.0, 13.3)	<0.001
Sweets and desserts (g/d) [‡]	5.3 (1.6, 12.1)	5.7 (2.1, 15.7)	7.5 (3.5, 17.7)	0.15
Poultry (g/d) [‡]	27.3 (17.4, 42.5)	24.3 (12.1, 30.3)	24.3 (12.1, 42.5)	0.1
Fruits and fruit juices	404.3 (274.6, 615.3)	365.2 (242.7, 590.7)	355.1 (263.2, 645.1)	0.6

(g/d) [‡]				
Vegetables (g/d) [‡]	249.8 (165.3, 338.0)	174.1 (150.7, 245.8)	176.0 (122.9, 228.3)	0.001
Refined grains (g/d) [†]	368.1±129.3	436.8±121.4	456.3±175.6	0.003 ^x
Fish (g/d) [‡]	7.6 (3.3, 28.9)	6.4 (1.7, 10.8)	6.7 (3.4, 12.8)	0.1

*Nutrient intakes expressed as energy-adjusted residuals.

[†]Values are means ± SD.

[‡] Values are median (interquartile range).

^x P-values obtained using ANOVA test.

^{||} P-values obtained using Kruskal-Wallis test.

Table 3. Beta estimates and confidence intervals for the association between the dietary inflammatory index and FBS, and lipid profile

		FBS (mg/dl)	P-value	Log TG (mg/dl)	P- value	TC (mg/dl)	P- value	LDL-C (mg/dl)	P- value	HDL-C (mg/dl)	P- valu e	Log TG/HDL-C ratio	P- value
Mo del I ^{†‡}	T ₁ (-3.88, -0.58) n=58	Reference		Referenc e		Reference		Referenc e		Reference		Reference	
	T ₂ (-0.59, 1.08) n=58	-1.31 (-9.09, 6.47)	0.7	0.05 (- 0.02, 0.12)	0.1	-3.41 (- 18.74, 11.91)	0.6	-2.46 (- 9.33, 4.40)	0.4	-2.44 (-5.60, 0.70)	0.1	0.08 (-0.01, 0.18)	0.09
	T ₃ (1.09, 3.84) n=59	-1.38 (- 9.13, 6.37)	0.7	0.08 (0.01, 0.16)	0.02	8.33 (- 6.92, 23.60)	0.2	2.01 (- 4.82, 8.86)	0.5	-2.54 (- 5.68, 0.59)	0.1	0.11 (0.01, 0.21)	0.02
	P- trend	0.7	-	0.02	-	0.2	-	0.5	-	0.1	-	0.02	-
	DII score (continues)	0.12 (- 1.66, 1.91)	0.8	0.02 (0.005, 0.03)	0.01	1.99 (- 1.53, 5.53)	0.2	0.67 (- 0.90, 2.26)	0.4	-0.50 (- 1.22, 0.22)	0.1	0.02 (0.005, 0.05)	0.01
Mo del II ^{†§}	T ₁ (-3.88, -0.58) n=58	Reference		Referenc e		Reference		Referenc e		Reference		Reference	

T ₂ (-0.59, 1.08) n=58	-1.66 (- 9.49, 6.16)	0.6	0.05 (- 0.02, 0.12)	0.1	-6.16 (- 21.75, 9.43)	0.4	-3.90 (- 10.86, 3.05)	0.2	-2.22 (- 5.42, 0.97)	0.1	0.07 (-0.02, 0.17)	0.1
T ₃ (1.09, 3.84) n=59	-1.80 (- 9.84, 6.24)	0.6	0.08 (0.008, 0.16)	0.03	5.87 (- 10.15, 21.90)	0.4	0.84 (- 6.30, 8.00)	0.8	-1.96 (- 5.25, 1.32)	0.2	0.10 (0.003, 0.20)	0.04
P- trend	0.6	-	0.03	-	0.4	-	0.8		0.2	-	0.04	-
DII score (continues)	0.09 (- 1.77, 1.97)	0.9	0.02 (0.003, 0.03)	0.02	1.61 (- 2.14, 5.36)	0.3	0.50 (- 1.17, 2.17)	0.5	-0.33 (- 1.10, 0.43)	0.3	0.02 (0.001, 0.04)	0.03

FBS, fasting blood glucose; TG, triacylglycerol; TC, total cholesterol; LDL-C, low density lipoprotein cholesterol; HDL-C, high density lipoprotein cholesterol.

†Linear regression was used

‡Crude association.

§Adjusted for age, educational level, physical activity, BMI, energy intake, dietary supplement use, lipid-lowering medication and current chronic diseases.

Table 4. Beta estimates and confidence intervals for the association between the dietary inflammatory index and inflammatory biomarkers

		hs-CRP (mg/l)	P-value	Log IL-6 (pg/ml)	P-value	Log IL-1 β (pg/ml)	P-value	TNF- α (pg/ml)	P-value
Model I ^{††}	T ₁ (-3.88, -0.58) n=58	Reference		Reference		Reference		Reference	
	T ₂ (-0.59, 1.08) n=58	0.39 (-0.48, 1.27)	0.3	0.05 (0.001, 0.11)	0.04	0.03 (-0.01, 0.09)	0.1	2.39 (-1.22, 6.02)	0.1
	T ₃ (1.09, 3.84) n=59	0.43 (-1.44, 1.30)	0.3	0.06 (0.007, 0.11)	0.02	0.002 (-0.05, 0.05)	0.9	0.65 (-2.95, 4.26)	0.7
	P-trend	0.3	-	0.02	-	0.9	-	0.7	-
	DII score (continues)	0.11 (-0.08, 0.3)	0.2	0.01 (0.00, 0.02)	0.04	-0.001 (-0.01, 0.01)	0.8	0.05 (-0.78, 0.89)	0.8
	T ₁ (-3.88, -0.58) n=58	Reference		Reference		Reference		Reference	
Model II ^{†§}	T ₂ (-0.59, 1.08) n=58	0.31 (-0.54, 1.16)	0.4	0.05 (-0.001, 0.11)	0.05	0.04 (-0.007, 0.09)	0.09	2.10 (-1.57, 5.77)	0.2

	T ₃ (1.09, 3.84) n=59	0.46 (-0.41, 1.35)	0.3	0.06 (0.01, 0.12)	0.01	-0.003 (- 0.05, 0.05)	0.9	-0.37 (- 4.18, 3.43)	0.8
	P-trend	0.2	-	0.01	-	0.9	-	0.8	
DII score (continues)		0.13 (-0.07, 0.33)	0.2	0.01 (0.002, 0.02)	0.02	-0.003 (- 0.01, 0.01)	0.6	-0.17 (- 1.06, 0.72)	0.7

hs-CRP, high-sensitivity C-reactive protein; IL, interleukin; TNF- α , tumor necrosis factor alpha.

[†]Linear regression was used

[‡]Crude association.

[§]Adjusted for age, educational level, physical activity, BMI, energy intake, anti-inflammatory and cardiovascular medication, dietary supplement use and current chronic diseases.