Table 1. Anthropometric, hormonal and metabolic features of the adolescents studied: mean ± SD, (range). x^2 or Kruskal-Wallis P values.

	OBESE ADOLESCENTS				CONTROLS (n=15)		P
	IR (n=20)		NIR (n=20)				
Gender (M/F)	7/13		10/10		9/6		=0.185
Age (years)	12.86 ± 1.82	(10.58-15.83)	12.72 ± 1.87	(10.83-16.00)	12.81 ± 1.11	(11.33-15.08)	=0.163
BMI (kg/m^2)	30.54 ± 4.73†	(23.63-46.00)	29.43 ± 3.87†	(21.57-34.52)	19.97 ± 3.14*	(15.90-25.80)	<0.001
BF %	35.58 ± 6.00†	(25.20-47.90)	34.33 ± 5.14†	(25.10-42.50)	21.10 ± 7.31*	(9.80-32.70)	<0.001
Glucose (mg/dl)	4.76 ± 0.54	(4.03-5.70)	4.77 ± 0.59	(3.38-5.90)	4.86 ± 5.72	(3.93-5.58)	=0.867
Insulin (μIU/ml)	143.78 ± 41.32†*	(89.68-246.82)	64.64 ± 19.01	(23.46-97.58)	59.98 ± 18.72	(30.06-92.55)	<0.001
HOMA-IR	4.54 ± 1.32†*	(3.16-8.49)	1.80 ± 0.55	(0.72-2.82)	1.79 ± 0.54	(0.98-2.90)	<0.001
Leptin (ng/ml)	46.33 ± 28.02†	(10.70-121.10)	34.74 ± 17.93†	(13.71-86.30)	11.64 ± 6.57*	(2.10-24.29)	<0.001
Ghrelin (pmol/l)	860.12 ± 289.89†*	(376.77-1619.36)	1102.09 ± 366.10†	(735.47-1955.76)	1358.47 ± 401.15*	(1011.87-2665.12)	<0.001

IR: insulin-resistant, NIR: non insulin-resistant; † P<0.05 vs. controls. * P<0.05 vs. NIR obese adolescents.