

Supplementary Table S1. Disease-related data and comorbidity association with IR indices.

	beta coef. (95% CI), <i>p</i>			
	HOMA2-IR		HOMA2-B%-C-peptide	
Age, years	0.007 (-0.005-0.02)	0.26	0.8 (-0.2-2)	0.11
Female, n (%)	-0.4 (-0.9-0.1)	0.13	-10 (-54-33)	0.63
SLE related data				
Age at diagnosis, years	0.008 (-0.003-0.02)	0.15	0.05 (-0.9-1)	0.92
Disease duration, years	-0.003 (-0.020-0.01)	0.67	1 (-0.1-2)	0.072
Antiphospholipid syndrome, n (%)	0.1 (-0.2-0.5)	0.48	-4 (-37-28)	0.81
Auto-antibody profile				
Anti-DNA positive, n (%)	0.03 (-0.3-0.4)	0.86	24 (-6-55)	0.12
ENA positive, n (%)	0.1 (-0.2-0.5)	0.42	30 (3-58)	0.030
Anti-Sm	-0.3 (-0.8-0.3)	0.32	-21 (-68-26)	0.38
Anti-ribosome	0.2 (-0.5-0.8)	0.60	25 (-16-65)	0.23
Anti-nucleosome	0.4 (-0.008-0.9)	0.054	16 (-11-44)	0.25
Anti-histone	-0.2 (-0.8-0.3)	0.44	-19 (-52-13)	0.24
Anti-RNP	0.01 (-0.3-0.4)	0.96	22 (-8-52)	0.15
Anti-SSA	0.04 (-0.3-0.4)	0.82	28 (-3-58)	0.077
Anti-SSB	-0.7 (-2-0.2)	0.15	117 (41-194)	0.003
Antiphospholipid antibodies, n (%)	-0.2 (-0.6-0.2)	0.32	-20 (-46-7)	0.14
ACA IgM	-0.001 (-0.5-0.5)	0.99	12 (-38-61)	0.65
ACA IgG	-0.3 (-0.7-0.07)	0.11	28 (-11-66)	0.16
Anti beta2 glycoprotein IgM	0.08 (-0.5-0.6)	0.77	58 (4-112)	0.034
Anti beta2 glycoprotein IgG	-0.03 (-0.5-0.4)	0.89	-12 (-54-30)	0.59
Disease scores				
Median SLEDAI-2K	0.01 (-0.02-0.05)	0.51	0.5 (-2-4)	0.72
SLEDAI-2K categories				
No activity, n (%)	ref.		ref.	
Mild, n (%)	0.05 (-0.3-0.4)	0.78	0.6 (-27-28)	0.97
Moderate to very high, n (%)	0.03 (-0.4-0.4)	0.89	-0.2 (-33-32)	0.99
Median SDI	0.07 (-0.01-0.1)	0.098	12 (5-18)	0.001
SDI ≥1, n (%)	0.06 (-0.2-0.3)	0.67	31 (7-55)	0.011
Katz Index	0.06 (-0.01-0.1)	0.12	9 (3-15)	0.004
Katz ≥3, n (%)	0.2 (-0.03-0.5)	0.083	26 (3-50)	0.027
Comorbidity				
Smoking, n (%)	-0.02 (-0.3-0.3)	0.90	-18 (-45-8)	0.18
Hypertension, n (%)	0.3 (0.003-0.6)	0.048	48 (24-72)	<0.001
Dyslipidaemia, n (%)	0.4 (0.05-0.7)	0.023	31 (4-57)	0.025
Abdominal circumference, cm	0.03 (0.02-0.04)	<0.001	3 (2-4)	<0.001
Body mass index, kg/m ²	0.06 (0.04-0.09)	<0.001	7 (4-8)	<0.001
Obesity, n (%)	0.6 (0.3-0.9)	<0.001	52 (27-78)	<0.001
Treatment at the time of the visit				
Statins use, n (%)	0.4 (0.1-0.8)	0.011	13 (-16-41)	0.38
Aspirin use, n (%)	0.09 (-0.2-0.4)	0.56	14 (-14-39)	0.35
Glucocorticoids, n (%)	0.2 (-0.04-0.5)	0.088	22 (-2-45)	0.067
Prednisone equivalent daily dose, mg	0.01 (-0.04-0.07)	0.62	1 (-4-7)	0.63
Antimalarials drugs, n (%)	-0.001 (-0.3-0.3)	0.99	-21 (-46-5)	0.11
Methotrexate, n (%)	-0.3 (-0.7-0.1)	0.19	-18 (-56-20)	0.35
Azathioprine, n (%)	-0.2 (-0.5-0.2)	0.38	-10 (-42-23)	0.55
Mycophenolate mofetil, n (%)	0.5 (0.03-0.9)	0.034	14 (-22-51)	0.46
Belimumab, n (%)	1 (0.2-2)	0.013	47 (-21-114)	0.17
Rituximab, n (%)	-0.003 (1-1)	0.99	-19 (-92-54)	0.61

Beta coefficients are expressed using HOMA2-IR and HOMA2-B% as the dependent variables. HOMA2-IR is calculated using insulin and glucose serum levels; HOMA2-B% is calculated with circulating C peptide and glucose. SLEDAI-2K categories were defined as: 0 no activity; 1-5 mild; 6-10 moderate; >10 high activity. ENA: extractable nuclear antibodies; ACA: anticardiolipin antibodies; SLEDAI-2K: Systemic Lupus Erythematosus Disease Activity Index; SDI: Systemic Lupus International Collaborating Clinics/American College of Rheumatology Damage Index. SLEDAI-2K: Systemic Lupus Erythematosus Disease Activity Index. Significant *p*-values are depicted in bold.

Supplementary Table S2. Demographics and disease-related data differences between SLE patients with and without metabolic syndrome.

	Metabolic syndrome		<i>p</i>
	No=148	Yes=75	
Age, years	46 ± 10	54 ± 12	<0.001
Female, n (%)	137 (93)	68 (91)	0.62
SLE related data			
Age at diagnosis, years	32 ± 11	38 ± 13	<0.001
Disease duration, years	15 ± 9	17 ± 10	0.18
Antiphospholipid syndrome, n (%)	27 (19)	7 (10)	0.076
Auto-antibody profile			
Anti-DNA positive, n (%)	75 (65)	38 (68)	0.73
ENA positive, n (%)	84 (68)	48 (75)	0.30
Anti-Sm	8 (6)	7 (11)	0.27
Anti-ribosome	9 (10)	2 (5)	0.30
Anti-nucleosome	18 (20)	9 (21)	0.90
Anti-histone	11 (12)	7 (16)	0.52
Anti-RNP	26 (22)	20 (32)	0.14
Anti-SSA	31 (34)	18 (37)	0.72
Anti-SSB	3 (3)	2 (4)	0.78
Antiphospholipid antibodies, n (%)	28 (38)	11 (31)	0.45
ACA IgM	12 (13)	4 (7)	0.30
ACA IgG	19 (20)	10 (18)	0.77
Anti beta2 glycoprotein IgM	6 (6)	7 (13)	0.17
Anti beta2 glycoprotein IgG	15 (16)	9 (17)	0.93
Disease scores			
Median SLEDAI-2K	2 (0-5)	1 (0-4)	0.19
SLEDAI-2K categories			
No activity, n (%)	54 (38)	30 (42)	0.090
Mild, n (%)	51 (36)	32 (45)	
Moderate to very high, n (%)	36 (26)	9 (13)	
Median SDI	1 (0-1)	2 (0-3)	<0.001
SDI ≥1, n (%)	86 (58)	54 (72)	0.043
Katz Index	2 (1-3)	2 (1-4)	0.21
Katz ≥3, n (%)	64 (43)	34 (45)	0.77
Comorbidity			
Smoking, n (%)	40 (27)	16 (21)	0.35
Hypertension, n (%)	25 (17)	49 (65)	<0.001
Dyslipidaemia, n (%)	92 (62)	74 (99)	<0.001
Abdominal circumference, cm	87 ± 12	100 ± 12	<0.001
Body mass index, kg/m ²	26 ± 5	30 ± 5	<0.001
Obesity, n (%)	25 (17)	37 (49)	<0.001
Treatment at the time of the visit			
Statins use, n (%)	9 (6)	38 (51)	<0.001
Aspirin use, n (%)	37 (26)	25 (34)	0.21
Glucocorticoids, n (%)	64 (44)	41 (55)	0.13
Prednisone equivalent daily dose, mg	5 (5-7.5)	5 (2.5-7.5)	0.36
Antimalarials drugs, n (%)	108 (74)	45 (61)	0.045
Methotrexate, n (%)	14 (9)	10 (13)	0.38
Azathioprine, n (%)	24 (16)	10 (13)	0.57
Mycophenolate mophetil, n (%)	16 (11)	9 (12)	0.79
Belimumab, n (%)	3 (2)	3 (4)	0.41
Rituximab, n (%)	4 (3)	1 (1)	0.67
Glucose homeostasis molecules and IR indices			
Glucose, mg/dl	90 ± 9	93 ± 10	0.064
Insulin, µU/ml	6.1 (3.8-8.4)	8.7 (5.2-14.0)	<0.001
C-peptide, ng/ml	1.9 (1.3-2.9)	3.2 (2.0-5.3)	<0.001
HOMA2-IR	0.8 (0.5-1.1)	1.2 (0.7-1.7)	<0.001
HOMA2-S%	125 (90-205)	86 (58-147)	0.002
HOMA2-B%-C-peptide	121 (93-165)	159 (119-246)	<0.001

In 2 patients out of 225 NCEP criteria for metabolic syndrome could not be calculated. Data represent means ± SD or median (interquartile range) when data were not normally distributed. SLEDAI-2K categories were defined as: 0 no activity; 1-5 mild; 6-10 moderate; >10 high activity. ENA: extractable nuclear antibodies; ACA: anticardiolipin antibodies. SLEDAI-2K: Systemic Lupus Erythematosus Disease Activity Index; SDI: Systemic Lupus International Collaborating Clinics/ American College of Rheumatology Damage Index. HOMA2-IR is calculated using insulin and glucose serum levels; HOMA2-B% is calculated with circulating C peptide and glucose. Significant *p*-values are depicted in bold.