SEMI

LA VISIÓN GLOBAL DE LA PERSONA ENFERMA

XXXI Congreso Nacional de la Sociedad Española de Medicina Interna

Impacto de los factores de riesgo cardiovascular tradicionales en el lupus eritematoso sistémico

Dr. José Mario Sabio

UEAS. Servicio de Medicina Interna.

Hospital Universitario Virgen de la Nieves. Granada.

Results: 1 to 20 of 10371

1. Bone marrow and umbilical cord blood human mesenchymal stem cells: state of the art.
   Malgieri A, Kantzari E, Patrizi MP, Gambardella S.
   Int J Clin Exp Med. 2010 Sep 7;3(4):248-69.
   PMID: 21072260 [PubMed - in process]
   Related citations

2. Statin therapy in lupus-mediated atherogenesis: two birds with one stone?
   van Leuven SI, Mendez-Fernandez YV, Stroes ES, Tak PP, Major AS.
   Ann Rheum Dis. 2010 Nov 10. [Epub ahead of print]
   PMID: 21068103 [PubMed - as supplied by publisher]
   Related citations

3. Vitamin D and inflammation.
   Guillot X, Semerano L, Saidenberg-Kermanac'h N, Falgarone G, Boissier MC.
   Joint Bone Spine. 2010 Nov 8. [Epub ahead of print]
   PMID: 21067953 [PubMed - as supplied by publisher]
   Related citations

4. Modulation of Lupus Phenotype by Adiponectin Deficiency in Autoimmune Mouse Models.
   Parker J, Menn-Josephy H, Laskow B, Takemura Y, Aprahamian T.
   J Clin Immunol. 2010 Nov 10. [Epub ahead of print]
   PMID: 21063900 [PubMed - as supplied by publisher]
   Related citations

5. Systemic lupus erythematosus: safe and effective management in primary care

ENFERMEDAD CARDIOVASCULAR EN LES

CLÍNICA:

- ↑ incidencia ECV

7 - 9 veces ↑ IAM

50 veces ↑ IAM en ♀ 35 - 44 años

ENFERMEDAD CARDIOVASCULAR EN LES

CLÍNICA:

- ↑ incidencia ECV
- ECV precoz

Racial Disparities in Age at Time of Cardiovascular Events and Cardiovascular-Related Death in Patients With Systemic Lupus Erythematosus

Lisabeth V. Scalzi, Christopher S. Hollenbeak, and Li Wang

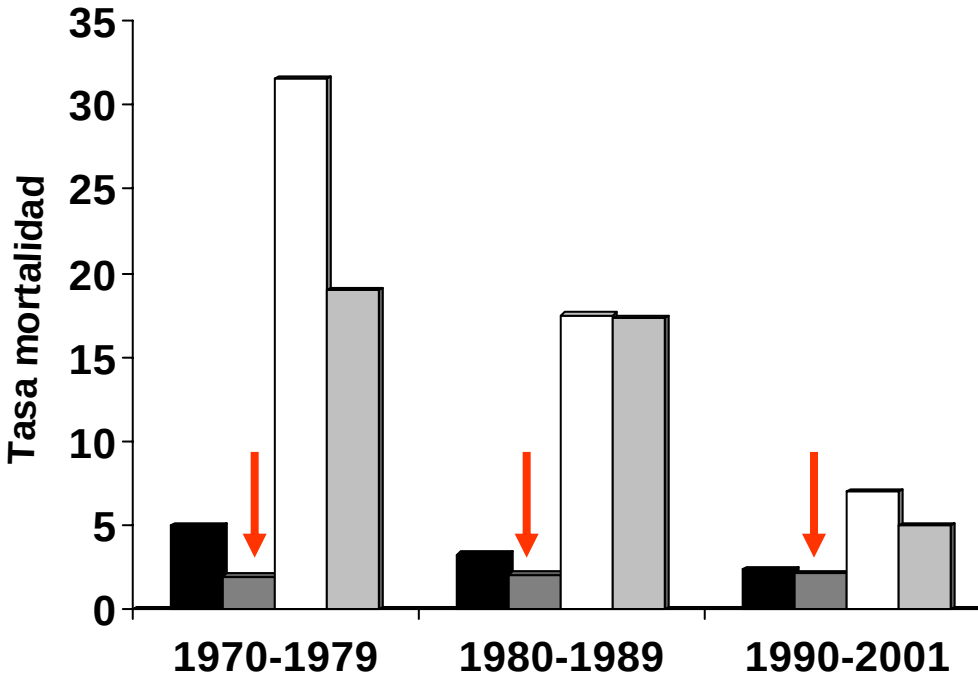
			Controls versus SLE patients	
	SLE patients*	Control subjects*	Age difference, years	*P*
All women	60.8 (3,627)	71.3 (608,543)	10.5	<0.0001
White	63.5 (2,352) [65]	72.5 (466,056) [76]	9.0	<0.0001
Black	53.9 (786) [21]	65.8 (67,602) [11]	11.9	<0.0001
Hispanic	57.5 (343) [9]	68.6 (48,085) [8]	11.1	<0.0001
Asian	60.6 (55) [2]	71.5 (10,994) [2]	10.8	<0.0001
Other	57.0 (91) [3]	68.6 (15,806) [3]	11.6	<0.0001
All men	60.4 (805)	65.9 (828,608)	5.5	<0.0001
White	63.0 (603) [75]	66.7 (665,999) [80]	3.7	<0.0001
Black	52.3 (114) [14]	61.4 (59,851) [7]	9.1	<0.0001
Hispanic	51.4 (58) [7]	63.5 (59,556) [7]	12.1	<0.0001
Asian	59.2 (8) [1]	65.9 (16,914) [2]	6.7	0.16
Other	55.4 (22) [3]	62.6 (26,288) [3]	7.2	0.009

ARTHRITIS & RHEUMATISM
Vol. 62, No. 9, September 2010, pp 2767–2775

ENFERMEDAD CARDIOVASCULAR EN LES

CLÍNICA:

- ECV precoz (~ <10 años)
- ↑ incidencia ECV
- ↑ Peso relativo mortalidad



ENFERMEDAD CARDIOVASCULAR EN LES

ENF. SUBCLÍNICA

ARTERIOSCLEROSIS

PRECOZ

ACELERADA


¿ Por qué ?

Premature Atherosclerotic Cardiovascular Disease in Systemic Lupus Erythematosus

Peter E. Westerweel, Remco K. M. A. C. Luyten, Hein A. Koomans, Ronald H. W. M. Derksen, and Marianne C. Verhaar

Risk factor	Reference
Traditional risk factors	
Hypertension	5, 6, 21, 35, 42, 43, 120, 121
Hypercholesterolemia	5, 6, 9, 35, 42, 43, 120, 121
Hypertriglyceridemia	21, 30, 36, 120
Hyperhomocysteinemia	30, 36, 120
Low levels of HDL cholesterol	55, 122
High body mass index	27, 42, 123
Insulin resistance	52
Metabolic syndrome	52
Diabetes mellitus	120
Earlier menopause	9, 42, 120
Renal impairment	120
Sedentary lifestyle	120
Elevated levels of C-reactive protein	13, 30, 42, 123
Smoking	13, 121

ARTHRITIS & RHEUMATISM
Vol. 56, No. 5, May 2007, pp 1384–1396

Premature Atherosclerotic Cardiovascular Disease in Systemic Lupus Erythematosus

Peter E. Westerweel, Remco K. M. A. C. Luyten, Hein A. Koomans,
Ronald H. W. M. Derksen, and Marianne C. Verhaar

Risk factor	Reference
Traditional risk factors	
Hypertension	5, 6, 21, 35, 42, 43, 120, 121
Hypercholesterolemia	5, 6, 9, 35, 42, 43, 120, 121
Hypertriglyceridemia	21, 30, 36, 120
Hyperhomocysteinemia	30, 36, 120
Low levels of HDL cholesterol	55, 122
High body mass index	27, 42, 123
Insulin resistance	52
Metabolic syndrome	52
Diabetes mellitus	120
Earlier menopause	9, 42, 120
Renal impairment	120
Sedentary lifestyle	120
Elevated levels of C-reactive protein	13, 30, 42, 123
Smoking	13, 121

ARTHRITIS & RHEUMATISM
Vol. 56, No. 5, May 2007, pp 1384–1396

Lupus. 2001;10(6):451-2.

Risk factors related to hypertension in a Spanish systemic lupus erythematosus cohort.

Sabio JM, Mediavilla JD, Fernández-Torres C, Aliaga L, Jiménez-Alonso J.

- **137 LES (87% MUJERES)**
- **PREVALENCIA 21%**
- **VARIABLES RELACIONADAS CON HTA**
  - **Uso de corticoides**
  - **Hombres**
  - **Duración del LES**
  - **Edad**

Premature Atherosclerotic Cardiovascular Disease in Systemic Lupus Erythematosus

Peter E. Westerweel, Remco K. M. A. C. Luyten, Hein A. Koomans,
Ronald H. W. M. Derksen, and Marianne C. Verhaar

Risk factor	Reference
Traditional risk factors	
Hypertension	5, 6, 21, 35, 42, 43, 120, 121
Hypercholesterolemia	5, 6, 9, 35, 42, 43, 120, 121
Hypertriglyceridemia	21, 30, 36, 120
Low levels of HDL cholesterol	55, 122
High body mass index	27, 42, 123
Insulin resistance	52
Metabolic syndrome	52
Diabetes mellitus	120
Earlier menopause	9, 42, 120
Renal impairment	120
Sedentary lifestyle	120
Elevated levels of C-reactive protein	13, 30, 42, 123
Smoking	13, 121

ARTHRITIS & RHEUMATISM
Vol. 56, No. 5, May 2007, pp 1384–1396

Premature Atherosclerotic Cardiovascular Disease in Systemic Lupus Erythematosus

Peter E. Westerweel, Remco K. M. A. C. Luyten, Hein A. Koomans,
Ronald H. W. M. Derksen, and Marianne C. Verhaar

Risk factor	Reference
Traditional risk factors	
Hypertension	5, 6, 21, 35, 42, 43, 120, 121
Hypercholesterolemia	5, 6, 9, 35, 42, 43, 120, 121
Hypertriglyceridemia	21, 30, 36, 120
Hyperhomocysteinemia	30, 36, 120
Low levels of HDL cholesterol	55, 122
High body mass index	27, 42, 123
Insulin resistance	52
Metabolic syndrome	52
Diabetes mellitus	120
Earlier menopause	9, 42, 120
Renal impairment	120
Sedentary lifestyle	120
Elevated levels of C-reactive protein	13, 30, 42, 123
Smoking	13, 121

ARTHRITIS & RHEUMATISM
Vol. 56, No. 5, May 2007, pp 1384–1396

Premature Atherosclerotic Cardiovascular Disease in Systemic Lupus Erythematosus

Peter E. Westerweel, Remco K. M. A. C. Luyten, Hein A. Koomans,
Ronald H. W. M. Derksen, and Marianne C. Verhaar

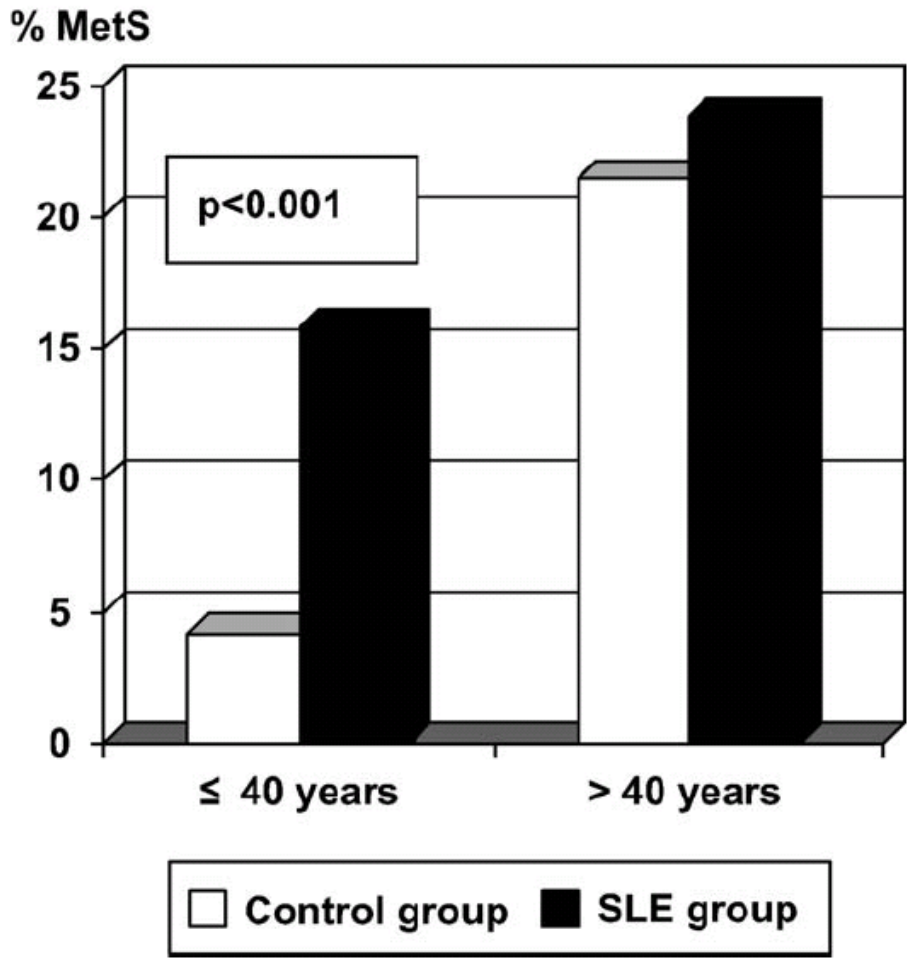
Risk factor	Reference
Traditional risk factors	
Hypertension	5, 6, 21, 35, 42, 43, 120, 121
Hypercholesterolemia	5, 6, 9, 35, 42, 43, 120, 121
Hypertriglyceridemia	21, 30, 36, 120
Hyperhomocysteinemia	30, 36, 120
Low levels of HDL cholesterol	55, 122
High body mass index	27, 42, 123
Insulin resistance	52
Metabolic syndrome	52
Diabetes mellitus	120
Earlier menopause	9, 42, 120
Renal impairment	120
Sedentary lifestyle	120
Smoking	13, 121

ARTHRITIS & RHEUMATISM
Vol. 56, No. 5, May 2007, pp 1384–1396

Lupus. 2008 Sep;17(9):849-59.

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain.

Sabio JM, Zamora-Pasadas M, Jiménez-Jáimez J, Albadalejo F, Vargas-Hitos J, Rodríguez del Aguila MD, Hidalgo-Tenorio C, Gonzalez-Gay MA, Jimenez-Alonso J.
Systemic Autoimmune Diseases Unit, Hospital Universitario Virgen de las Nieves, Granada, Spain. jmasabio@gmail.com



PAPER

Correlation of asymptomatic hyperuricaemia and serum uric acid levels with arterial stiffness in women with systemic lupus erythematosus without clinically evident atherosclerotic cardiovascular disease

JM Sabio[1], J Vargas-Hitos[1], JD Mediavilla[2], N Navarrete-Navarrete[1], M Zamora-Posadas[1], S Pérez-Vicente[3], C Hidalgo-Tenorio[1], A Díaz-Chamorro[1], L Jáimez[4] and J Jiménez-Alonso[1] for the 'Grupo Lupus Virgen de las Nieves'

Lupus. 2010 Apr;19(5):591-8

Risk Factors for Coronary Heart Disease in Women With Systemic Lupus Erythematosus

ARTHRITIS & RHEUMATISM
Vol. 48, No. 11, November 2003, pp 3159–3167

The Toronto Risk Factor Study

Ian N. Bruce,[1] Murray B. Urowitz,[1] Dafna D. Gladman,[1] Dominique Ibañez,[2] and George Steiner[3]

Characteristic	SLE (n = 250)	Controls (n = 250)	RR (95% CI)	*P*
Age, mean ± SD years	44.5 ± 12	44.1 ± 14	–	NS
Race, %				
White/black	77/10	88/3	–	0.0051
Chinese/other	6/7	5/4	–	
Education, % below college	39	16	2.45 (1.77–3.39)	0.001
Menopause				
Age at onset, mean ± SD yea	45.4 ± 6.2	49.3 ± 4.0	–	0.0001
% postmenopausal	38	19	1.98 (1.47–2.67)	0.0001
% taking oral contraceptive	5	13	0.37 (0.19–0.71)	0.0011
% with hyperthyroidism	1.6	0.8	2.00 (0.37–10.62)	NS
% with hypothyroidism	11.9	5.2	2.29 (1.22–4.29)	0.0196
Serum creatinine				
Mean ± SD gm/liter	87.1 ± 99.6	70.3 ± 10	–	0.0087
% with >110 gm/liter	9	0	NA	0.001
Hemoglobin				
Mean ± SD mg/dl	125.6 ± 14	132.8 ± 9	–	0.0001
% with <115 mg/dl	16	3	5.06 (2.4–10.6)	<0.0001
% with sedentary lifestyle	15	9	1.65 (1.02–2.39)	0.0404
Waist:hip ratio				
Mean ± SD	0.80 ± 0.06	0.78 ± 0.06		0.0001
Abnormal >0.85, no. (%)	39 (15.6)	23 (9.2)	1.70 (1.04–2.75)	0.0299
Body mass index				
Mean ± SD kg/m^2	25.1 ± 6.3	25.6 ± 5.8	–	NS
% with >27 kg/m^2	28	30	0.92 (0.69–2.05)	NS

Risk Factors for Coronary Heart Disease in Women With Systemic Lupus Erythematosus

The Toronto Risk Factor Study

Ian N. Bruce,[1] Murray B. Urowitz,[1] Dafna D. Gladman,[1] Dominique Ibañez,[2] and George Steiner[3]

Risk factor	SLE (n = 250)	Controls (n = 250)	RR (95% CI)	*P*
Hypertension	83 (33)	32 (13)	2.59 (1.79–3.75)	0.001
Hypercholesterolemia	84 (34)	91 (36)	0.92 (0.73–1.17)	NS
Low HDL cholesterol level of <0.9 mmoles/liter	33 (13)	26 (10)	1.27 (0.78–2.06)	NS
Current smoker	42 (17)	49 (20)	0.86 (0.59–1.24)	NS
Diabetes mellitus	12 (5)	2 (1)	6.00 (1.36–26.53)	0.0066
Family history of premature CHD	49 (20)	42 (17)	1.16 (0.80–1.69)	NS
Mean ± SD no. of risk factors per person	1.01 ± 1.0	0.72 ± 1.0	NA	0.0014
Mean 10-year risk for CHD-related event, %	3.2	3.2	NA	NS

ARTHRITIS & RHEUMATISM
Vol. 48, No. 11, November 2003, pp 3159–3167

Risk Factors for Coronary Heart Disease in Women With Systemic Lupus Erythematosus

The Toronto Risk Factor Study

Ian N. Bruce,[1] Murray B. Urowitz,[1] Dafna D. Gladman,[1] Dominique Ibañez,[2] and George Steiner[3]

Risk factor	SLE (n = 250)	Controls (n = 250)	RR (95% CI)	*P*
Hypertension	83 (33)	32 (13)	2.59 (1.79–3.75)	0.001
Hypercholesterolemia	84 (34)	91 (36)	0.92 (0.73–1.17)	NS
Low HDL cholesterol level of <0.9 mmoles/liter	33 (13)	26 (10)	1.27 (0.78–2.06)	NS
Current smoker	42 (17)	49 (20)	0.86 (0.59–1.24)	NS
Diabetes mellitus	12 (5)	2 (1)	6.00 (1.36–26.53)	0.0066
Family history of premature CHD	49 (20)	42 (17)	1.16 (0.80–1.69)	NS
Mean ± SD no. of risk factors per person	1.01 ± 1.0	0.72 ± 1.0	NA	0.0014
Mean 10-year risk for CHD-related event, %	3.2	3.2	NA	NS

ARTHRITIS & RHEUMATISM
Vol. 48, No. 11, November 2003, pp 3159–3167

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

JM Sabio[1], M Zamora-Pasadas[2], J Jiménez-Jáimez[2], F Albadalejo[3], J Vargas-Hitos[2], MDM Rodríguez del Águila[4], C Hidalgo-Tenorio[1], MA Gonzalez-Gay[5] and JJ Alonso[1]

	SLE patients (n = *160*)	*Control group* (n = *245*)	P
Age (median [range], years)	42 (15–82)	41 (17–80)	
Female gender (%)	89	91	NS
Education level (years)	9.6 ± 5.3	10.1 ± 2.2	NS
Body mass index (kg/m^2)	25.9 ± 5.3	25.8 ± 4.3	NS
Waist circumference (cm)	86.3 ± 13.5	87.1 ± 12.3	NS
Waist circumference (cm) (only women)	85.5 ± 13.1	86.0 ± 12.0	NS
Hypertension	73	33	<0.001
Waist circumference	36	43	NS
Dyslipidemia	68	65	NS
Diabetes mellitus	4	3	NS
Obesity	22	16	NS
Current smokers	26	38	0.017
Sedentary lifestyle	61	48	0.010
Family history of premature CVD	9	8	NS
Alcohol consumption (%)	8	6	NS

Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

JM Sabio[1], M Zamora-Pasadas[2], J Jiménez-Jáimez[2], F Albadalejo[3], J Vargas-Hitos[2], MDM Rodríguez del Águila[4], C Hidalgo-Tenorio[1], MA Gonzalez-Gay[5] and JJ Alonso[1]

	SLE patients (n = *160*)	*Control group* (n = *245*)	P
Age (median [range], years)	42 (15–82)	41 (17–80)	
Female gender (%)	89	91	NS
Education level (years)	9.6 ± 5.3	10.1 ± 2.2	NS
Body mass index (kg/m^2)	25.9 ± 5.3	25.8 ± 4.3	NS
Waist circumference (cm)	86.3 ± 13.5	87.1 ± 12.3	NS
Waist circumference (cm) (only women)	85.5 ± 13.1	86.0 ± 12.0	NS
Hypertension	73	33	<0.001
Waist circumference	36	43	NS
Dyslipidemia	68	65	NS
Diabetes mellitus	4	3	NS
Obesity	22	16	NS
Current smokers	26	38	0.017
Sedentary lifestyle	61	48	0.010
Family history of premature CVD	9	8	NS
Alcohol consumption (%)	8	6	NS

Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

JM Sabio[1], M Zamora-Pasadas[2], J Jiménez-Jáimez[2], F Albadalejo[3], J Vargas-Hitos[2], MDM Rodríguez del Águila[4], C Hidalgo-Tenorio[1], MA Gonzalez-Gay[5] and JJ Alonso[1]

	SLE patients (n = 160)	Control group (n = 245)	p
Age (mean, years)	43.1 ± 14.8	42.3 ± 9.9	NS
Age (median (range), years)	42 (15-82)	41 (17-80)	
Female gender (%)	89	91	NS
Education level (years)	9.6 ± 5.3	10.1 ± 2.2	NS
Patients with MetS (%)	20	13	0.083
Number of MetS criteria (mean)	1.55 ± 1.11	1.12 ± 1.17	<0.001
Patients with 0 MetS criteria (%)	16	40	<0.001

Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

JM Sabio[1], M Zamora-Pasadas[2], J Jiménez-Jáimez[2], F Albadalejo[3], J Vargas-Hitos[2], MDM Rodríguez del Águila[4], C Hidalgo-Tenorio[1], MA Gonzalez-Gay[5] and JJ Alonso[1]

	SLE patients (n = 160)	Control group (n = 245)	p
Age (mean, years)	43.1 ± 14.8	42.3 ± 9.9	NS
Age (median (range), years)	42 (15-82)	41 (17-80)	
Female gender (%)	89	91	NS
Education level (years)	9.6 ± 5.3	10.1 ± 2.2	NS
Patients with MetS (%)	20	13	0.083
Number of MetS criteria (mean)	1.55 ± 1.11	1.12 ± 1.17	<0.001
Patients with 0 MetS criteria (%)	16	40	<0.001

Lupus 2008;17:849-59

Los pacientes con LES tienen más FRCV tradicionales que la población general

Contribution of traditional risk factors to coronary artery disease in patients with systemic lupus erythematosus.

Rahman P, Urowitz MB, Gladman DD, Bruce IN, Genest J Jr

J Rheumatol 1999;26:2363-8

In women with SLE the mean number of CAD risk factors per cardiac event was 2.0 +/- 0.77 versus 2.90 +/- 1.19 for the comparison group (p = 0.0008). In men with SLE the mean number of CAD risk factors was 1.87 +/- 0.83 versus 2.73 +/- 0.99 in the comparison group (p = 0.016).

CONCLUSION: SLE patients with a cardiac event have fewer traditional risk factors than non-SLE patients with premature CAD. Thus premature CAD in SLE cannot be attributed solely to an excess of traditional risk factors.

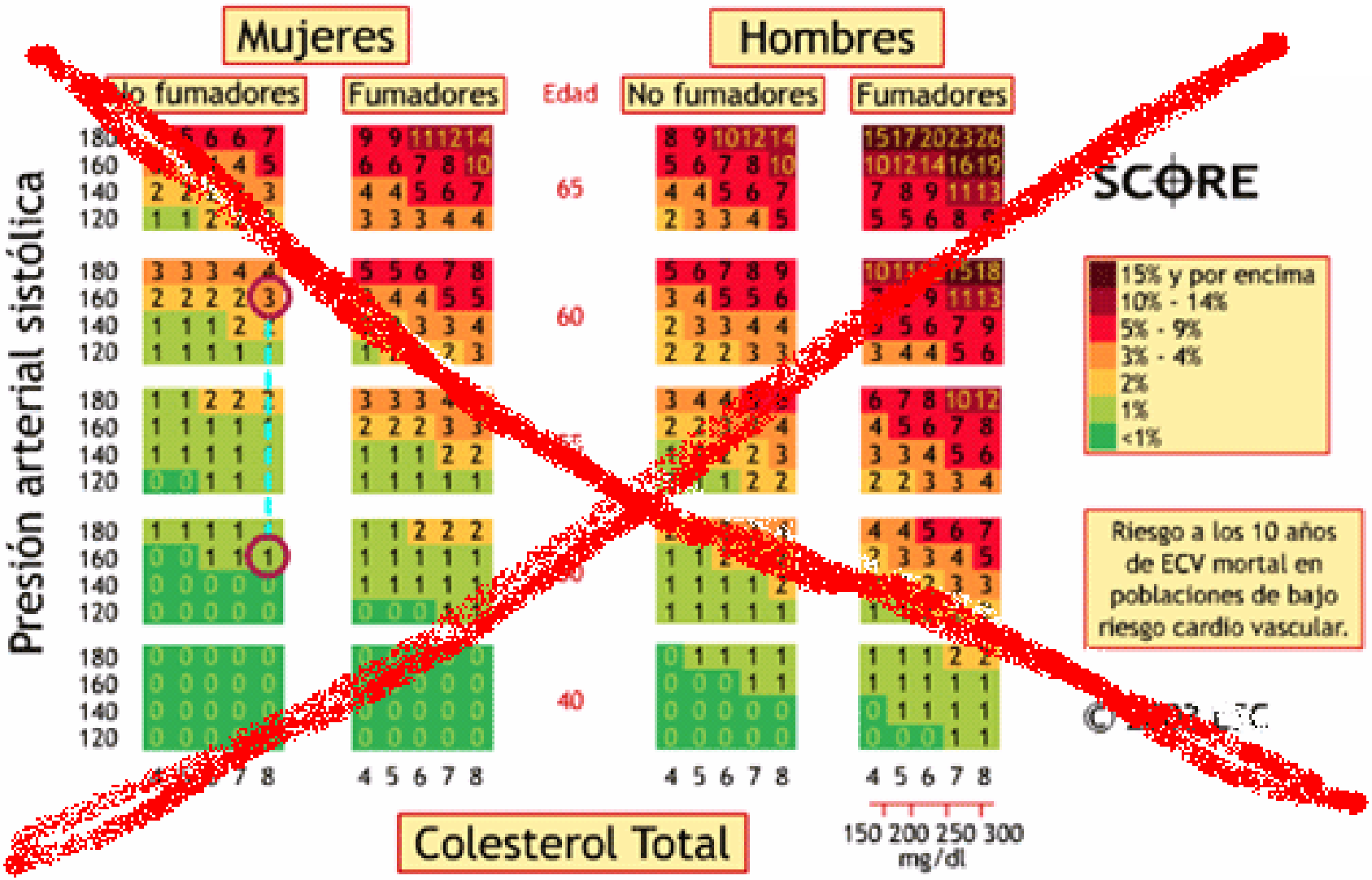
Traditional Framingham Risk Factors Fail to Fully Account for Accelerated Atherosclerosis in Systemic Lupus Erythematosus

John M. Esdaile,[1] Michal Abrahamowicz,[2] Tamara Grodzicky,[3] Yin Li,[4] Constantina Panaritis,[4] Roxane du Berger,[4] Robert Côté,[2] Steven A. Grover,[2] Paul R. Fortin,[2] Ann E. Clarke,[2] and Jean-Luc Senécal[3]

Outcome	Observed number of events	Expected number of events	Observed: expected ratio	95% CI
Nonfatal myocardial infarction	17	1.7	10.1	5.8–15.6
Death due to coronary heart disease	12	0.7	17.0	8.1–29.7
Overall coronary heart disease	34	4.5	7.5	5.1–10.4
Stroke	16	2.0	7.9	4.0–13.6

* 95% CI = 95% confidence interval.

ARTHRITIS & RHEUMATISM
Vol. 44, No. 10, October 2001, pp 2331–2337


Mujeres
Hombres
No fumadores
Fumadores
No fumadores
Fumadores
Edad
65
60
55
50
40
Presión arterial sistólica
180
160
140
120
4 5 6 7 8
150 200 250 300
mg/dl
Colesterol Total
SCORE
15% y por encima
10% - 14%
5% - 9%
3% - 4%
2%
1%
<1%
Riesgo a los 10 años de ECV mortal en poblaciones de bajo riesgo cardio vascular.


‘Not only…but also’
Bruce IN. Rheumatology 2005;44:1492-1502

Comparison of Risk Factors for Vascular Disease in the Carotid Artery and Aorta in Women With Systemic Lupus Erythematosus

Selzer,[1] Kim Sutton-Tyrrell,[1] Shirley G. Fitzgerald,[1] Joan E. Pratt,[1] Russell P. Tracy,[2] Lewis H. Kuller,[1] and Susan Manzi[1]

Explanatory variable	Presence of carotid plaque			Severity of carotid plaque		
	Odds ratio	95% CI	*P*	Odds ratio	95% CI	*P*
Age, years	1.12	1.07–1.17	<0.001	1.11	1.07–1.18	<0.001
Systolic blood pressure, mm Hg	1.03	1.01–1.06	0.007	1.03	1.01–1.06	0.002
Antidepressant use, yes/no	2.15	0.93–4.97	0.07	–	–	–
HDL-3, mg/dl	0.96	0.93–0.99	0.04	–	–	–
Albumin ≤3.9 gm/dl	–	–	–	5.23	1.35–20.17	0.02
Ever smoked	–	–	–	1.90	1.00–3.62	0.05

ARTHRITIS & RHEUMATISM
Vol. 50, No. 1, January 2004, pp 151–159

Comparison of Risk Factors for Vascular Disease in the Carotid Artery and Aorta in Women With Systemic Lupus Erythematosus

Selzer,[1] Kim Sutton-Tyrrell,[1] Shirley G. Fitzgerald,[1] Joan E. Pratt,[1] Russell P. Tracy,[2] Lewis H. Kuller,[1] and Susan Manzi[1]

	Top quartile of IMT		
Explanatory variable	Odds ratio	95% CI	*P*
Age, years	1.15	1.09–1.22	<0.001
Pulse pressure, mm Hg	1.04	1.00–1.09	0.04
Albumin ≤3.9 gm/dl	7.77	1.30–46.32	0.02
CRP >4.3 mg/ml	3.01	1.15–7.85	0.02
High cholesterol, yes/no†	2.97	1.18–7.51	0.02
Glucose, mg/dl‡	1.64	1.10–2.43	0.01

ARTHRITIS & RHEUMATISM
Vol. 50, No. 1, January 2004, pp 151–159

Comparison of Risk Factors for Vascular Disease in the Carotid Artery and Aorta in Women With Systemic Lupus Erythematosus

Selzer,[1] Kim Sutton-Tyrrell,[1] Shirley G. Fitzgerald,[1] Joan E. Pratt,[1] Russell P. Tracy,[2] Lewis H. Kuller,[1] and Susan Manzi[1]

Explanatory variable	Top quartile of PWV		
	Odds ratio	95% CI	*P*
Age, years	1.13	1.07–1.18	<0.001
Systolic blood pressure, mm Hg	1.04	1.01–1.07	0.002
C3, mg/dl	1.02	1.00–1.04	0.03
White cell count, $10^3/mm^3$	0.83	0.67–1.02	0.07
Insulin, μU/ml†	1.54	1.05–2.27	0.03
Renal disease‡	7.53	1.84–30.93	0.005

ARTHRITIS & RHEUMATISM
Vol. 50, No. 1, January 2004, pp 151–159

Metabolic Syndrome Is Associated with Increased Arterial Stiffness and Biomarkers of Subclinical Atherosclerosis in Patients with Systemic Lupus Erythematosus

JOSÉ MARIO SABIO, JOSÉ VARGAS-HITOS, MÓNICA ZAMORA-PASADAS, JUAN DIEGO MEDIAVILLA, NURIA NAVARRETE, ÁNGEL RAMIREZ, CARMEN HIDALGO-TENORIO, LAURA JÁIMEZ, JAVIER MARTÍN, and JUAN JIMÉNEZ-ALONSO, for the Grupo Lupus Virgen de las Nieves

J Rheumatol. 2009;36(10):2204-11

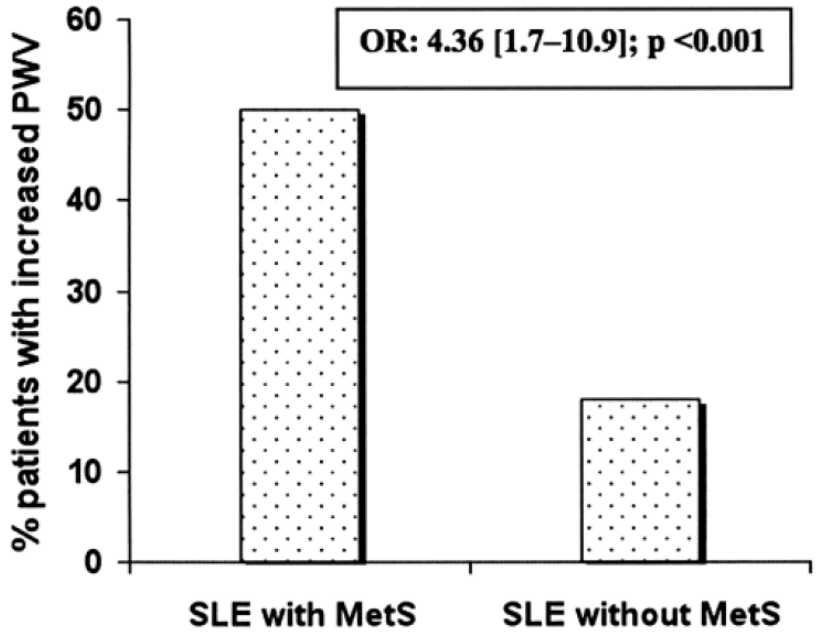
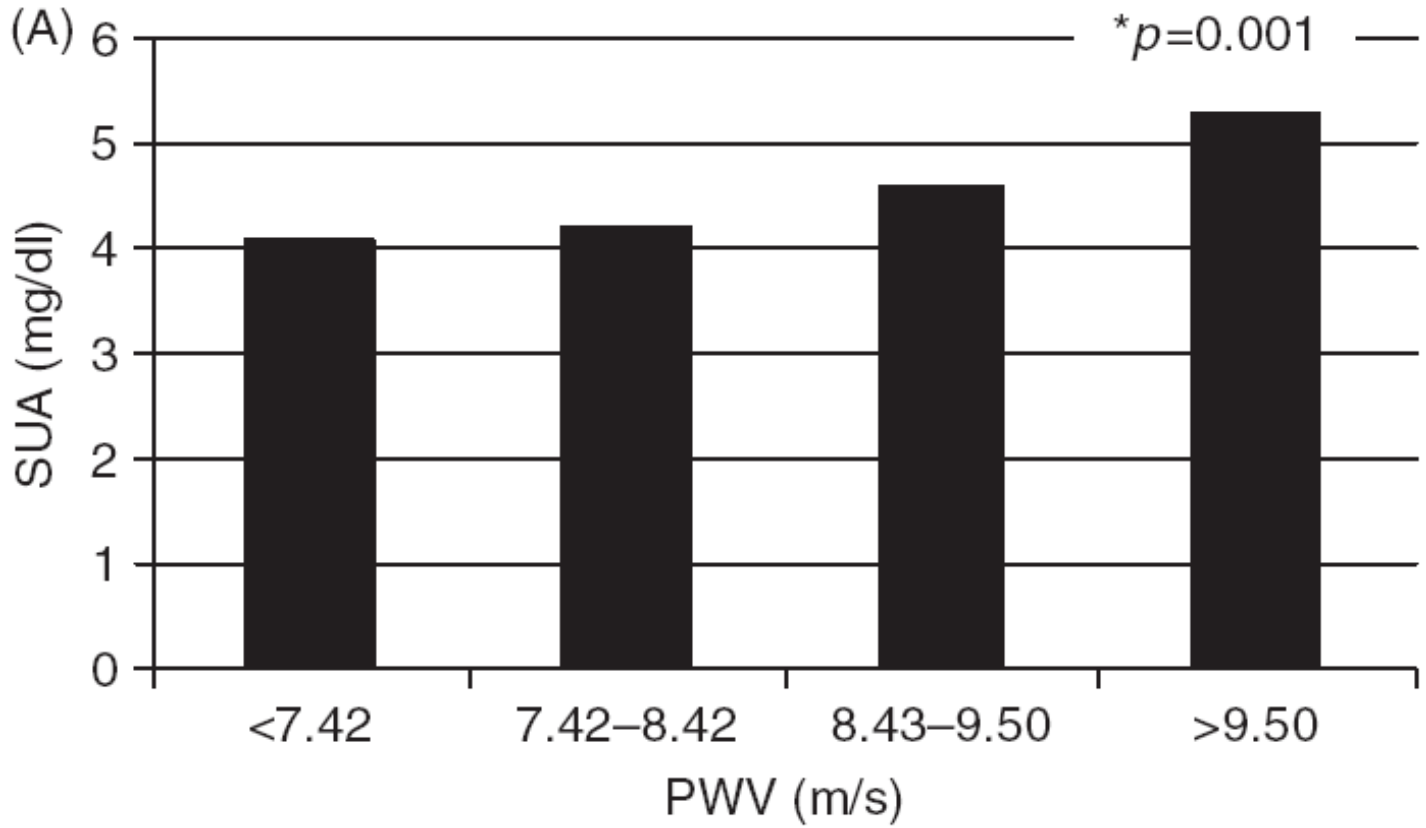


Table 4. Variables associated with increased pulse wave velocity in patients with SLE, using logistic regression.

Explanatory Variable	ß Coefficient	OR (95% CI)	p
Age	0.05	1.1 (1.05–1.10)	0.010
Male sex	1.49	4.43 (1.14–17.9)	0.030
Metabolic syndrome	1.07	2.93 (1.05–8.93)	0.050
SLE duration	0.05	1.05 (1.0–1.63)	0.050
C-reactive protein	0.80	2.22 (1.03–5.46)	0.040

Correlation of asymptomatic hyperuricaemia and serum uric acid levels with arterial stiffness in women with systemic lupus erythematosus without clinically evident atherosclerotic cardiovascular disease

JM Sabio[1], J Vargas-Hitos[1], JD Mediavilla[2], N Navarrete-Navarrete[1], M Zamora-Posadas[1], S Pérez-Vicente[3], C Hidalgo-Tenorio[1], A Díaz-Chamorro[1], L Jáimez[4] and J Jiménez-Alonso[1] for the 'Grupo Lupus Virgen de las Nieves'



Lupus. 2010 Apr;19(5):591-8

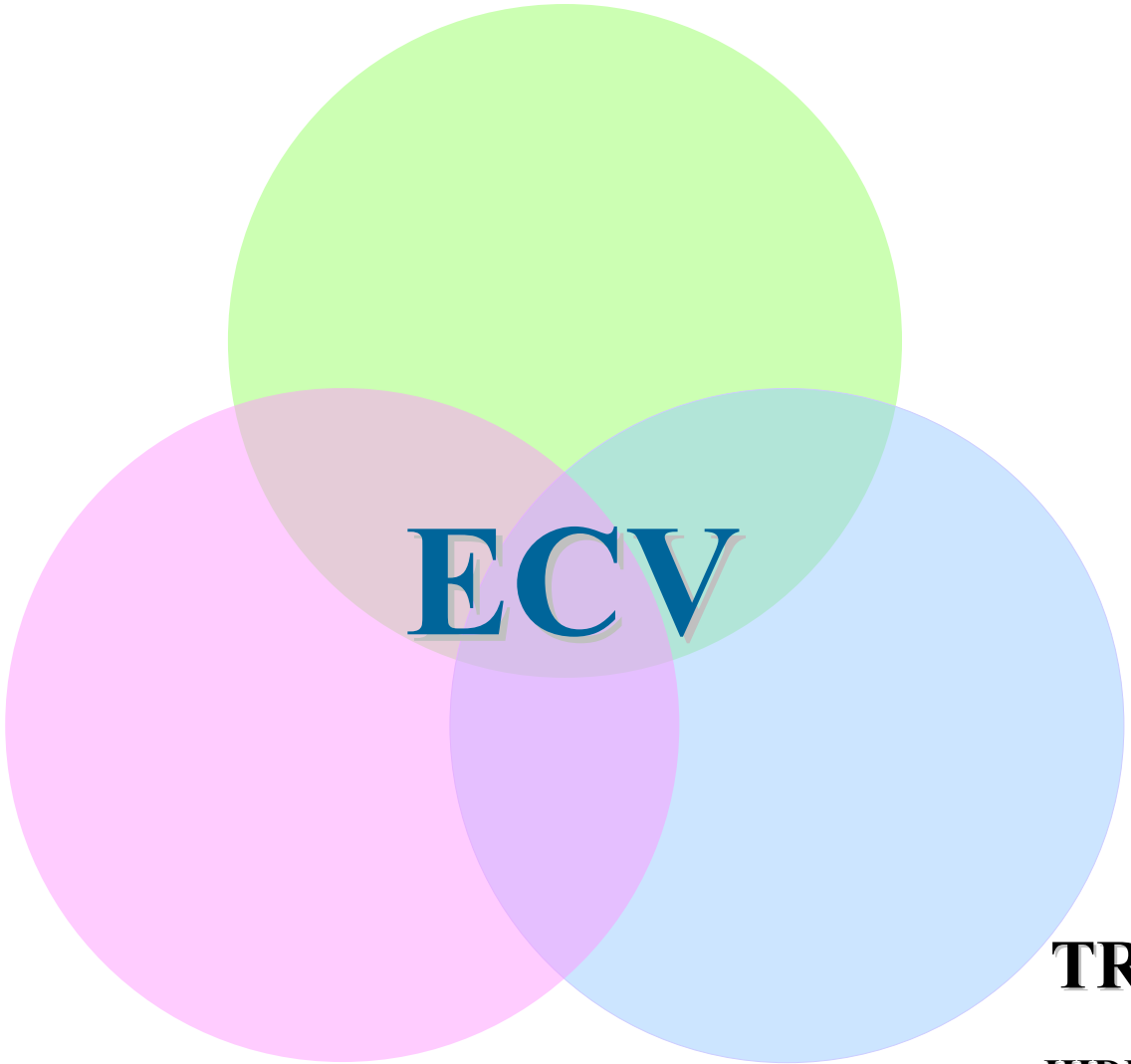
Vascular events in hypertensive patients with systemic lupus erythematosus.

Rahman P, Aguero S, Gladman DD, Hallett D, Urowitz MB.

Lupus. 2000;9(9):672-5.

Conclusion:
Systemic hypertension is associated with an increased frequency of vascular events in SLE. This is best explained by its association with hypercholesterolemia.

INFLAMACIÓN CRÓNICA



FRCV CLÁSICOS

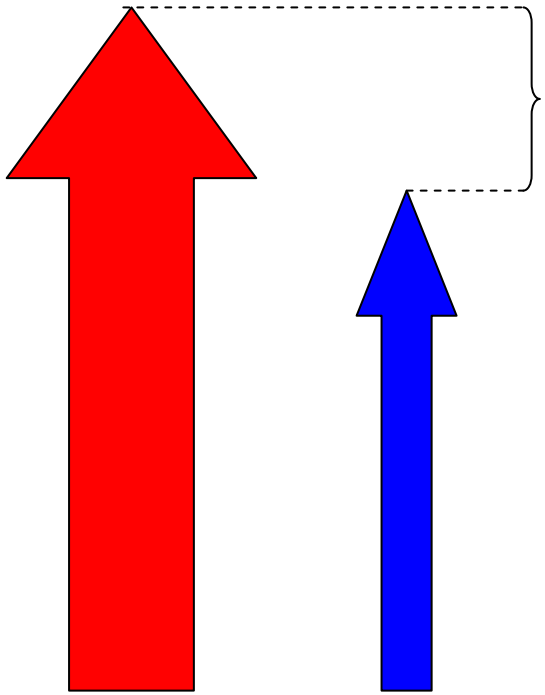
TRATAMIENTO
PREDNISONA (+)
HIDROXICLOROQUINA (-)

EFECTO ANTIINFLAMATORIO

EFECTO PROATEROGÉNICO

HTA, dislipemia, diabetes, obesidad, resistencia insulínia, etc

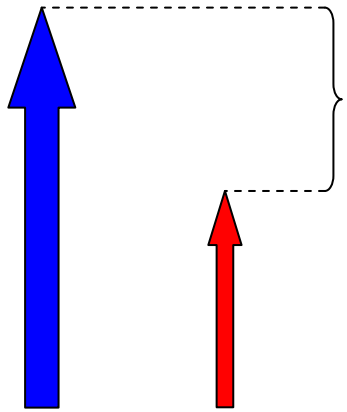
EFECTO DOSIS-DEPENDIENTE DE LOS CORTICOIDES



Dosis elevadas

Efecto deletéreo: dislipemia, HTA, obesidad, diabetes, SM

Efecto antiinflamatorio



Dosis bajas

Recent Corticosteroid Use and Recent Disease Activity: Independent Determinants of Coronary Heart Disease Risk Factors in Systemic Lupus Erythematosus?

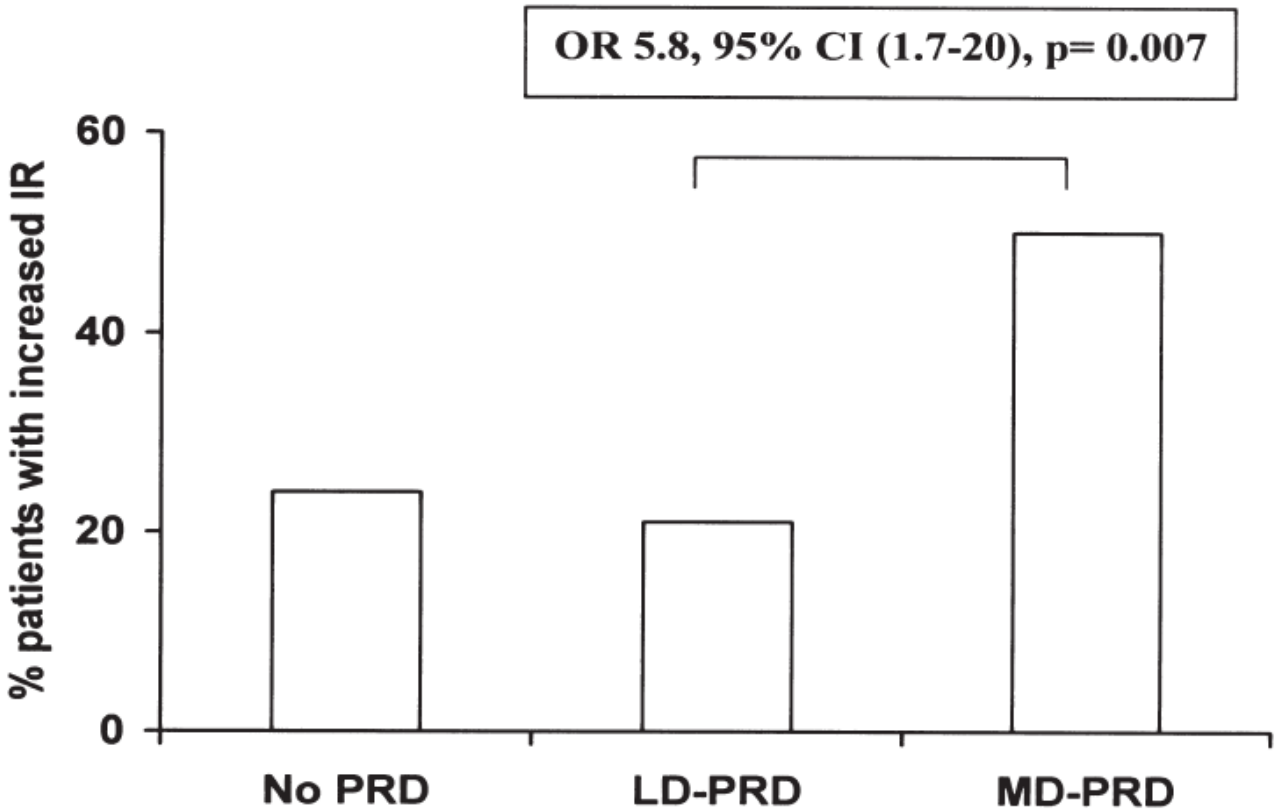
Un aumento de 10 mg/d de prednisona en el último año se asoció con:

- Aumento de CT (16 mg/dl)
- Aumento de LDLc (8,5 mg/dl)
- Aumento de TG (13 mg/dl)
- Aumento de PAS (1,6 mmHg)
- Aumento IMC (0,4)
- Aumento ~ 1 mg/dl de la glucemia

Karp et al. A&R 2008;59:169-175

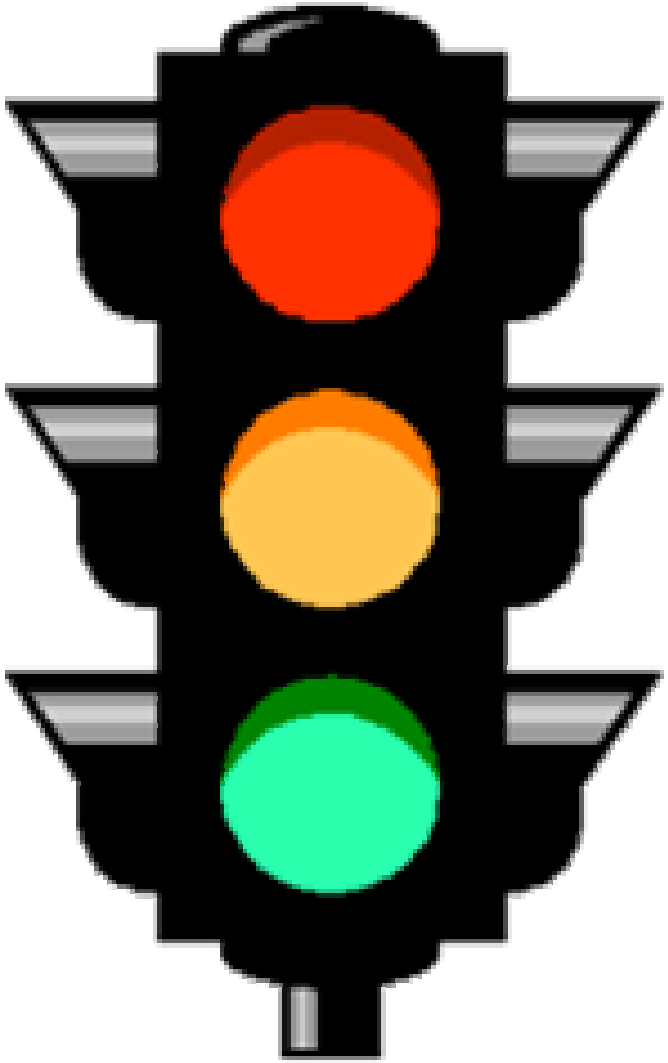
Effects of low or medium-dose of prednisone on insulin resistance in patients with systemic lupus erythematosus

J.M. Sabio, J.A. Vargas-Hitos, N. Navarrete, C. Hidalgo-Tenorio, J. Jiménez-Alonso, for the "Grupo Lupus Virgen de las Nieves"



Clinical and Experimental Rheumatology 2010; **28**: 483-489.

DOSIS DE PREDNISONA



> 7,5 mg/día

>5-7,5 mg/día

≤ 5 mg/día

DOSIS DE PREDNISONA

DOSIS MÍNIMA EFICAZ


FACTORES DE RIESGO CARDIOVASCULAR TRADICIONALES
FACTORES DE RIESGO RELACIONADOS CON LA INFLAMACIÓN CRÓNICA

Tumor Necrosis Factor-α Antagonist Etanercept Decreases Blood Pressure and Protects the Kidney in a Mouse Model of Systemic Lupus Erythematosus

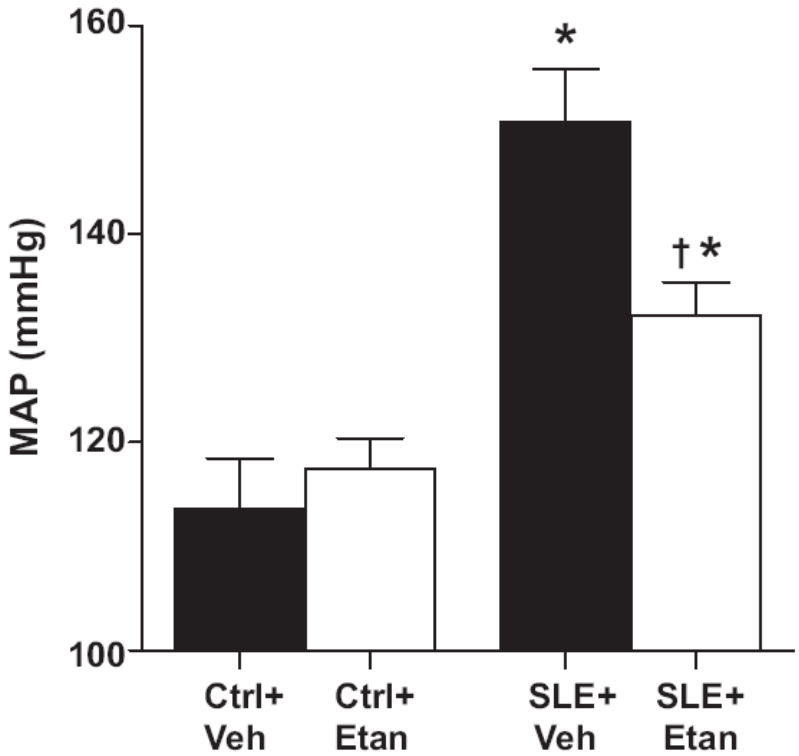


Figure 1. Effect of etanercept on MAP in SLE and control mice. MAP was significantly higher in SLE mice (n=9) compared with control mice (n=7; conscious). Etanercept (Etan) significantly reduced MAP in SLE mice (n=10) but had no effect on MAP in control animals (n=9). *$P<0.05$ vs Ctrl+Veh and Ctrl+Etan. †$P<0.05$ vs SLE+Veh.

CONCLUSSIONS: These data suggest that TNF- mechanistically contributes to the development of hypertension in a chronic inflammatory disease through increased renal nuclear factor B, oxidative stress, and inflammation.

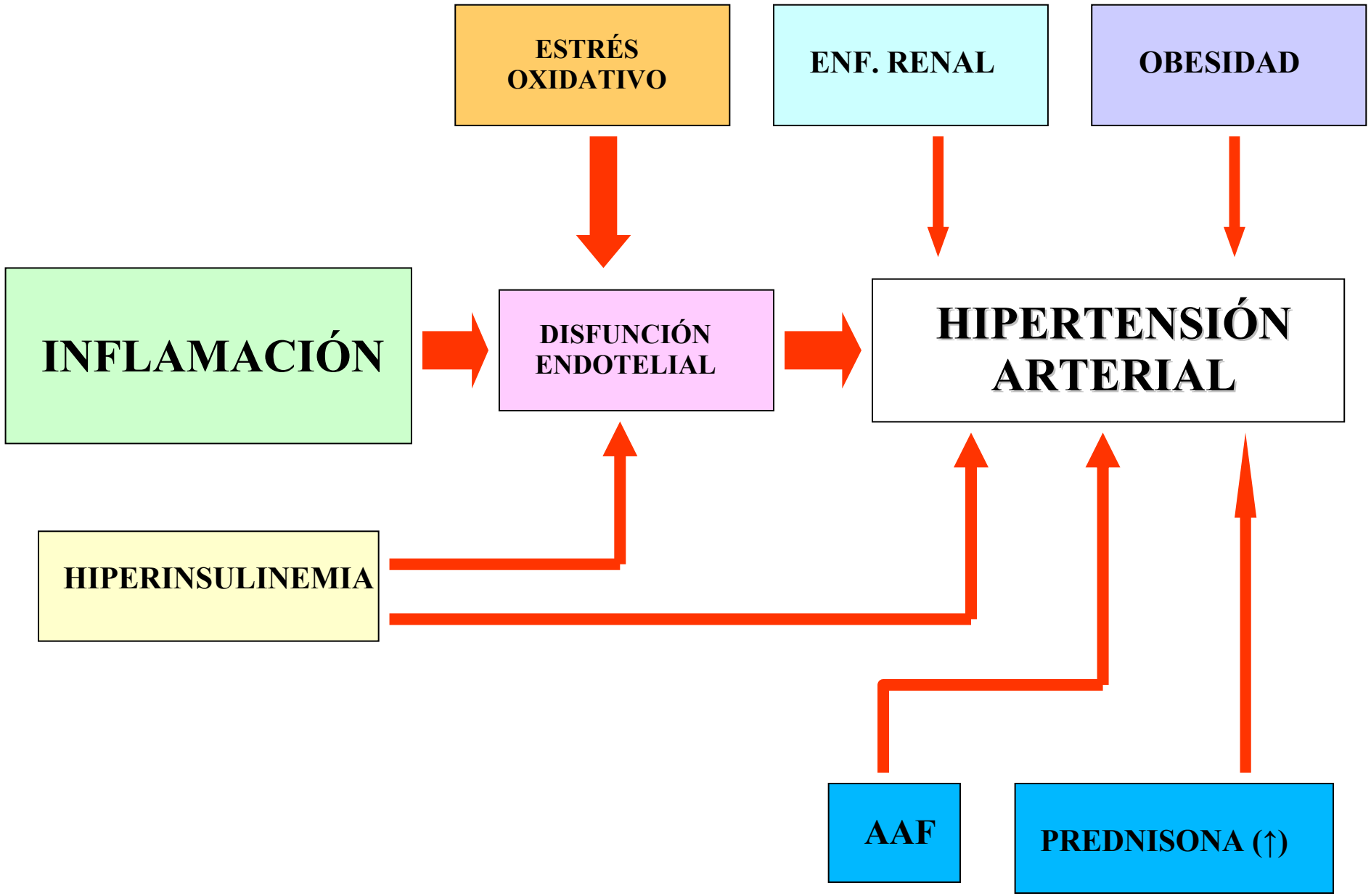
(*Hypertension*. 2010;56:643-649.)

Mycophenolate Mofetil Treatment Improves Hypertension in Patients with Psoriasis and Rheumatoid Arthritis

Jose Herrera,* Atilio Ferrebuz,* Ernesto García MacGregor,† and Bernardo Rodriguez-Iturbe*

J Am Soc Nephrol 17: S218–S225, 2006.

FISIOPATOLOGÍA DE LA HTA EN EL LES



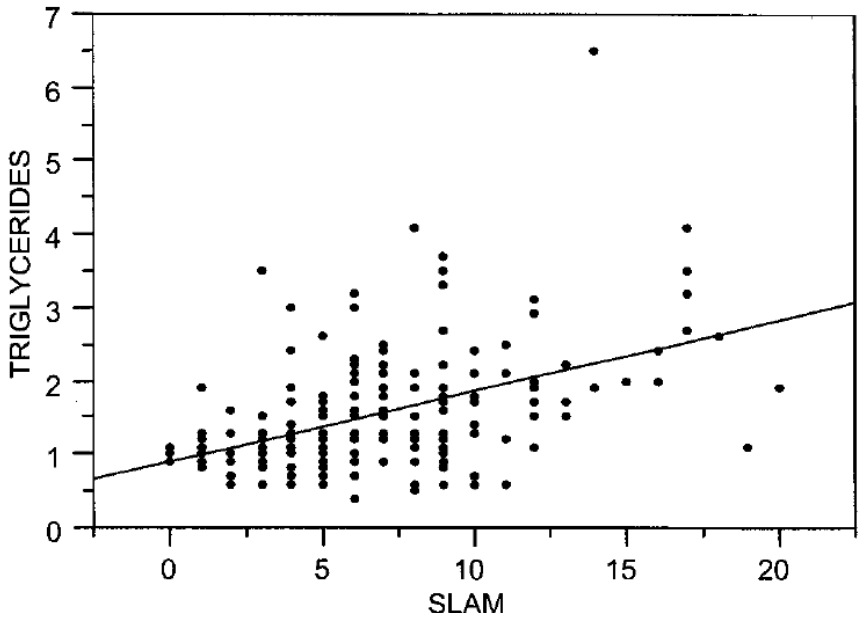
Prevalence and factors associated with hypertension in young and old women with systemic lupus erythematosus

José Mario Sabio MD, PhD (1), José Vargas-Hitos (1), Nuria Navarrete-Navarrete MD, PhD (1), Juan Diego Mediavilla MD, PhD (2), Juan Jiménez-Jáimez MD (3), Antonio Díaz-Chamorro MD (1), Juan Jiménez-Alonso MD, PhD (1),

Explanatory Variable	β Coefficient	OR (95% CI)	p
In entire cohort of women with systemic lupus erythematosus			
Renal involvement	2,6	8.3 (2-35)	<0.001
Age	0.11	1.1 (1.07-1.18)	<0.001
Insulin	0.18	1.2 (1.1-1.4)	0.002
SLEDAI	0.20	1.2 (1.03-1.5)	0.022
In younger women with systemic lupus erythematosus			
Renal involvement	2,06	7.9 (1.9-33)	0.005
Insulin	0.21	1.23 (1.04-1.46)	0.014
In older women with systemic lupus erythematosus			
Age	0.3	1.3 (1.1-1.6)	0.003
Renal involvement	4.8	27 (4-68)	0.003
Obesity	3.2	23 (1.7-44)	0.018
Prednisone use	2.0	8.2 (0.8-85)	0.078

Elevated Triglycerides and Low Levels of High-Density Lipoprotein as Markers of Disease Activity in Association With Up-Regulation of the Tumor Necrosis Factor α/Tumor Necrosis Factor Receptor System in Systemic Lupus Erythematosus

Variable	SLAM		
	No. of patients	r	*P*
TG	193	0.48	<0.0001
Total cholesterol	191	0.18	0.02
LDL cholesterol	188	0.13	0.08
HDL cholesterol	191	−0.27	0.0003
TNFα	204	0.14	0.04
sTNFR1	208	0.27	<0.0001
sTNFR2	207	0.27	<0.0001
Anti-dsDNA titer†	200	0.11	0.12
Present prednisolone dosage†	208	0.24	0.0004
Disease duration†	208	0.03	0.64
Age†	208	0.03	0.57



ARTHRITIS & RHEUMATISM
Vol. 48, No. 9, September 2003, pp 2533–2540

Long-term improvement of lipid profile in patients with refractory systemic lupus erythematosus treated with B-cell depletion therapy: a retrospective observational study.

Pego-Reigosa JM, Lu TY, Fontanillo MF, del Campo-Pérz V, Rahman A, Isenberg DA

Rheumatology (Oxford). 2010 Apr;49(4):691-6

Reduction in disease activity was significantly associated with a reduction in total cholesterol and TG levels and an increase in HDL cholesterol levels.

Conclusion: a favourable long-term effect of BCDT on the lipid profile of patients with refractory SLE, which correlated with decreasing activity of the disease

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

	SLE with MS (n = *32*)	*SLE without MS* (n = *128*)	
C-reactive protein (mg/dL)	1.5 ± 2.7	0.6 ± 1.8	0.048
Erythrocyte sedimentation rate	36 ± 27	25 ± 17	0.044
SLEDAI score	4.2 ± 3.7	3.5 ± 3.4	NS
SLICC damage index score	2.5 ± 2.1	1.3 ± 1.6	0.001

Sabio JM, et al. Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

	SLE with MS (n = *32*)	*SLE without MS* (n = *128*)	
C-reactive protein (mg/dL)	1.5 ± 2.7	0.6 ± 1.8	0.048
Erythrocyte sedimentation rate	36 ± 27	25 ± 17	0.044
SLEDAI score	4.2 ± 3.7	3.5 ± 3.4	NS
SLICC damage index score	2.5 ± 2.1	1.3 ± 1.6	0.001

Sabio JM, et al. Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

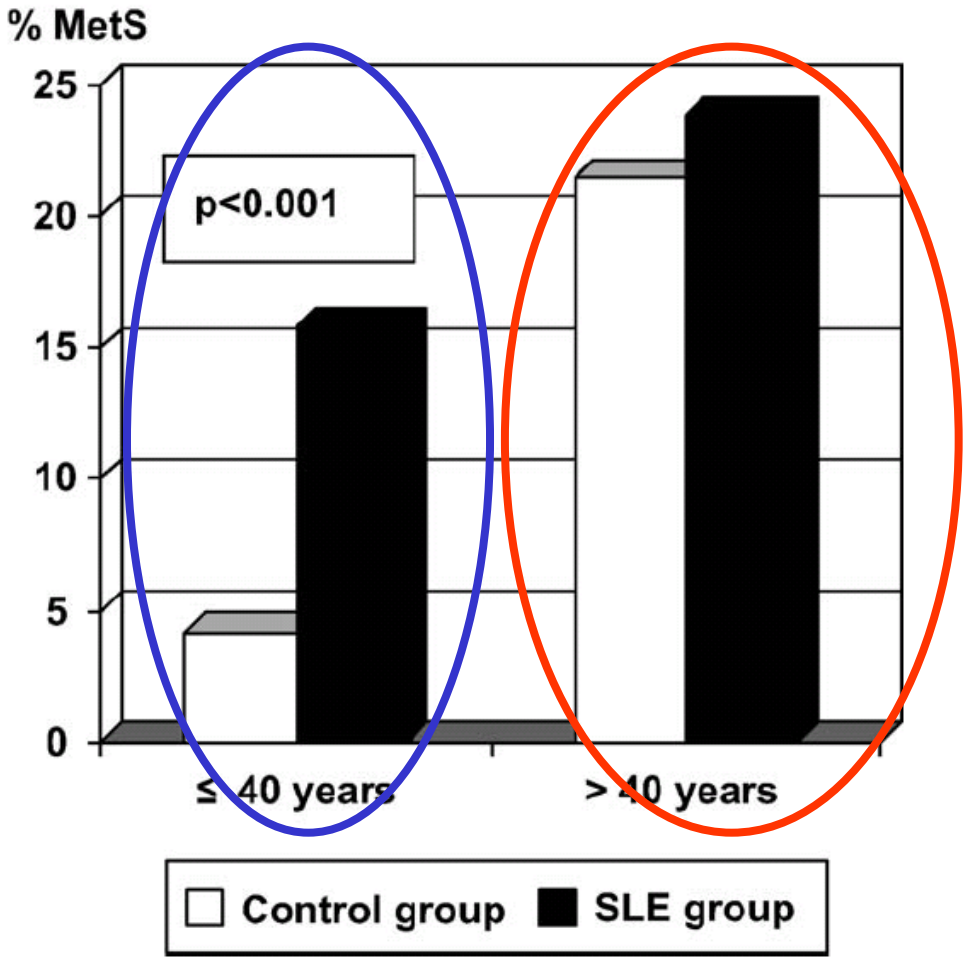
Sabio JM, Zamora-Pasadas M, Jiménez-Jáimez J, Albadalejo F, Vargas-Hitos J, Rodríguez del Aguila MD, Hidalgo-Tenorio C, Gonzalez-Gay MA, Jimenez-Alonso J.
Systemic Autoimmune Diseases Unit, Hospital Universitario Virgen de las Nieves, Granada, Spain. jmasabio@gmail.com

	SLE with MS (n = *32*)	*SLE without MS* (n = *128*)	
C-reactive protein (mg/dL)	1.5 ± 2.7	0.6 ± 1.8	0.048
Erythrocyte sedimentation rate	36 ± 27	25 ± 17	0.044
SLEDAI score	4.2 ± 3.7	3.5 ± 3.4	NS
SLICC damage index score	2.5 ± 2.1	1.3 ± 1.6	0.001

Lupus 2008;17:849-59

Metabolic syndrome in patients with systemic lupus erythematosus from Southern Spain

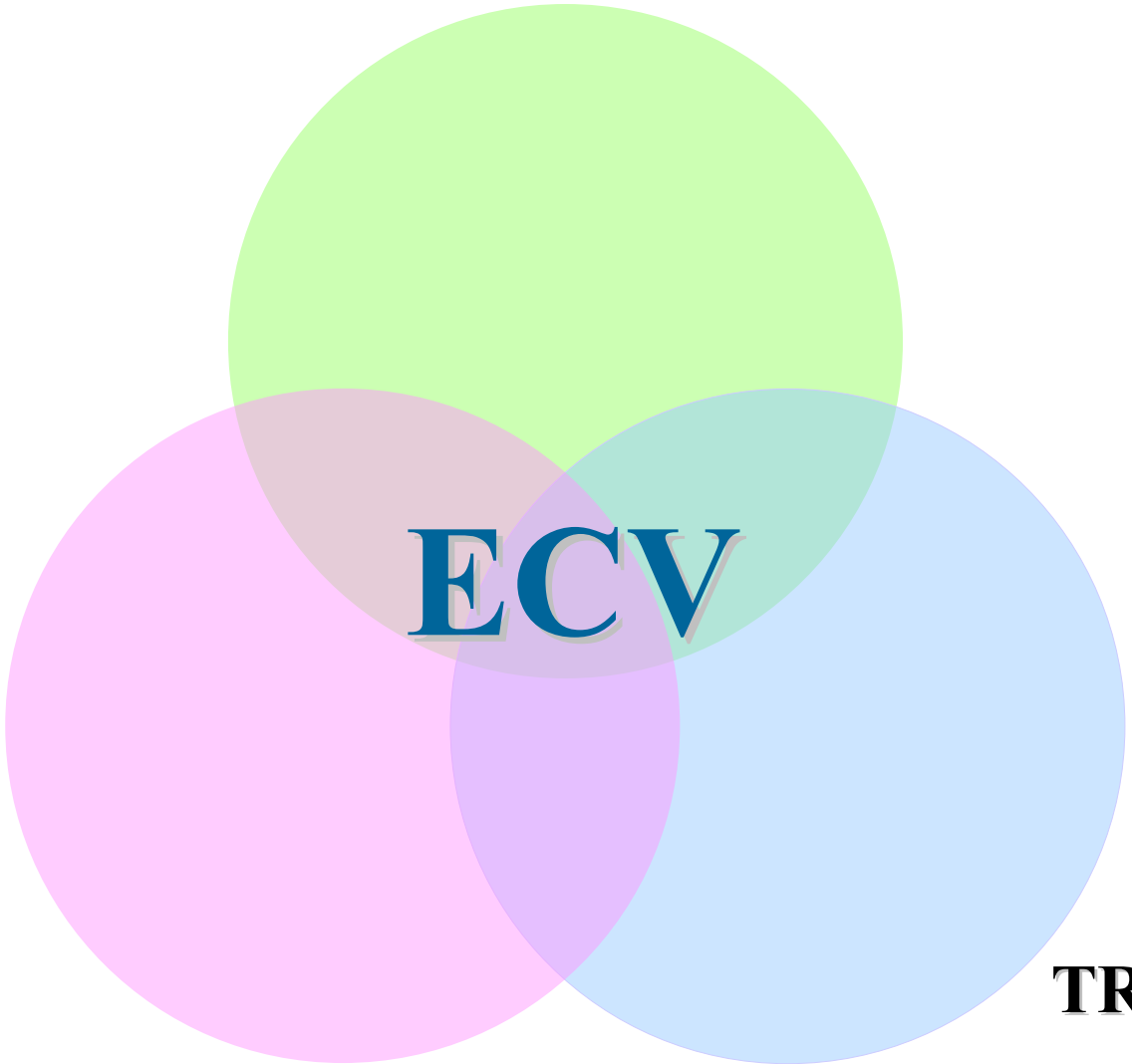
Sabio JM, Zamora-Pasadas M, Jiménez-Jáimez J, Albadalejo F, Vargas-Hitos J, Rodríguez del Aguila MD, Hidalgo-Tenorio C, Gonzalez-Gay MA, Jimenez-Alonso J.
Systemic Autoimmune Diseases Unit, Hospital Universitario Virgen de las Nieves, Granada, Spain. jmasabio@gmail.com



Lupus 2008;17:849-59


FACTORES DE RIESGO CARDIOVASCULAR TRADICIONALES
FACTORES DE RIESGO RELACIONADOS CON LA INFLAMACIÓN CRÓNICA

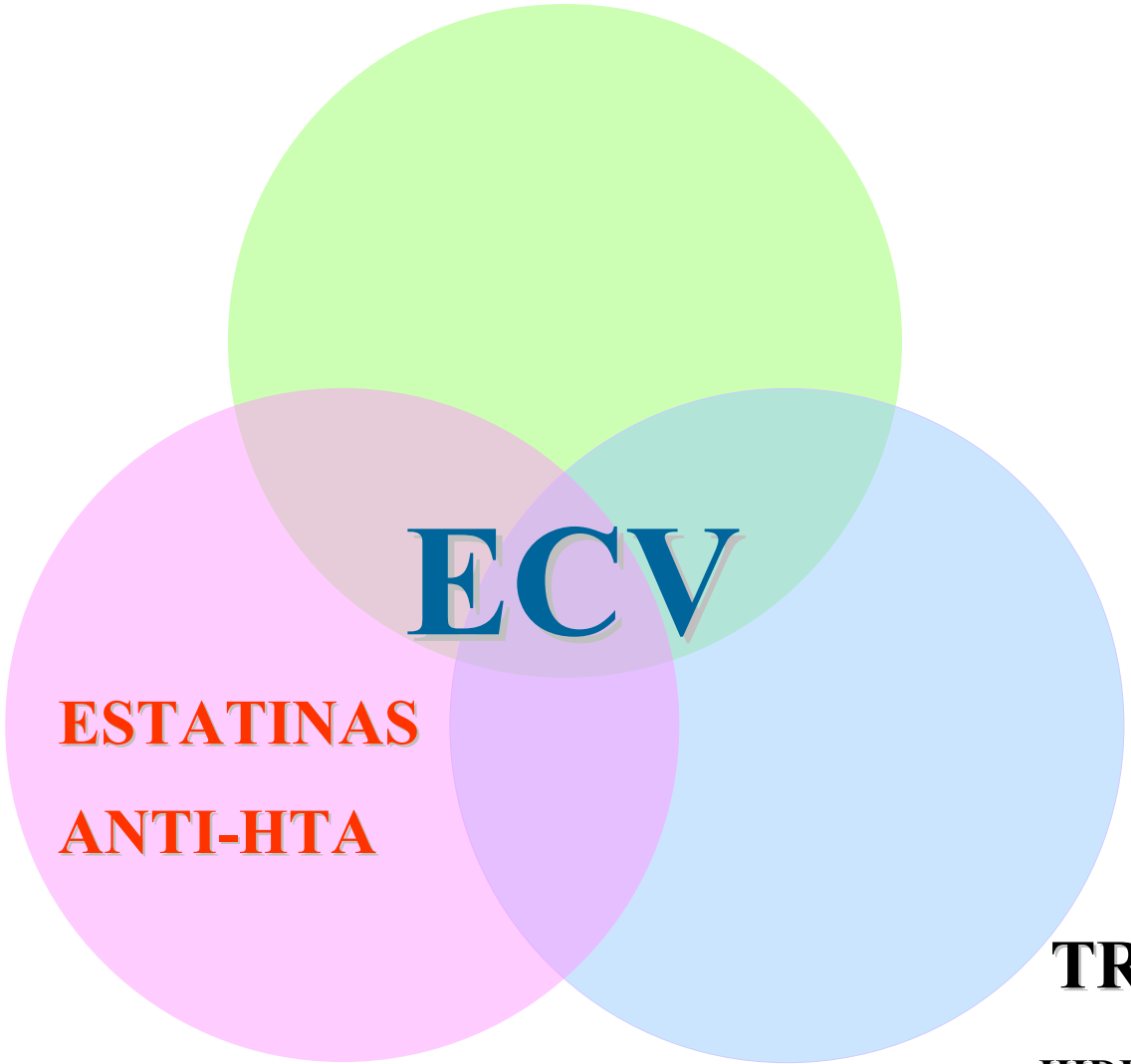
TRATAMIENTO DE LOS FRCV TRADICIONALES



FRCV CLÁSICOS

TRATAMIENTO
PREDNISONA

TRATAMIENTO DE LOS FRCV TRADICIONALES



FRCV CLÁSICOS

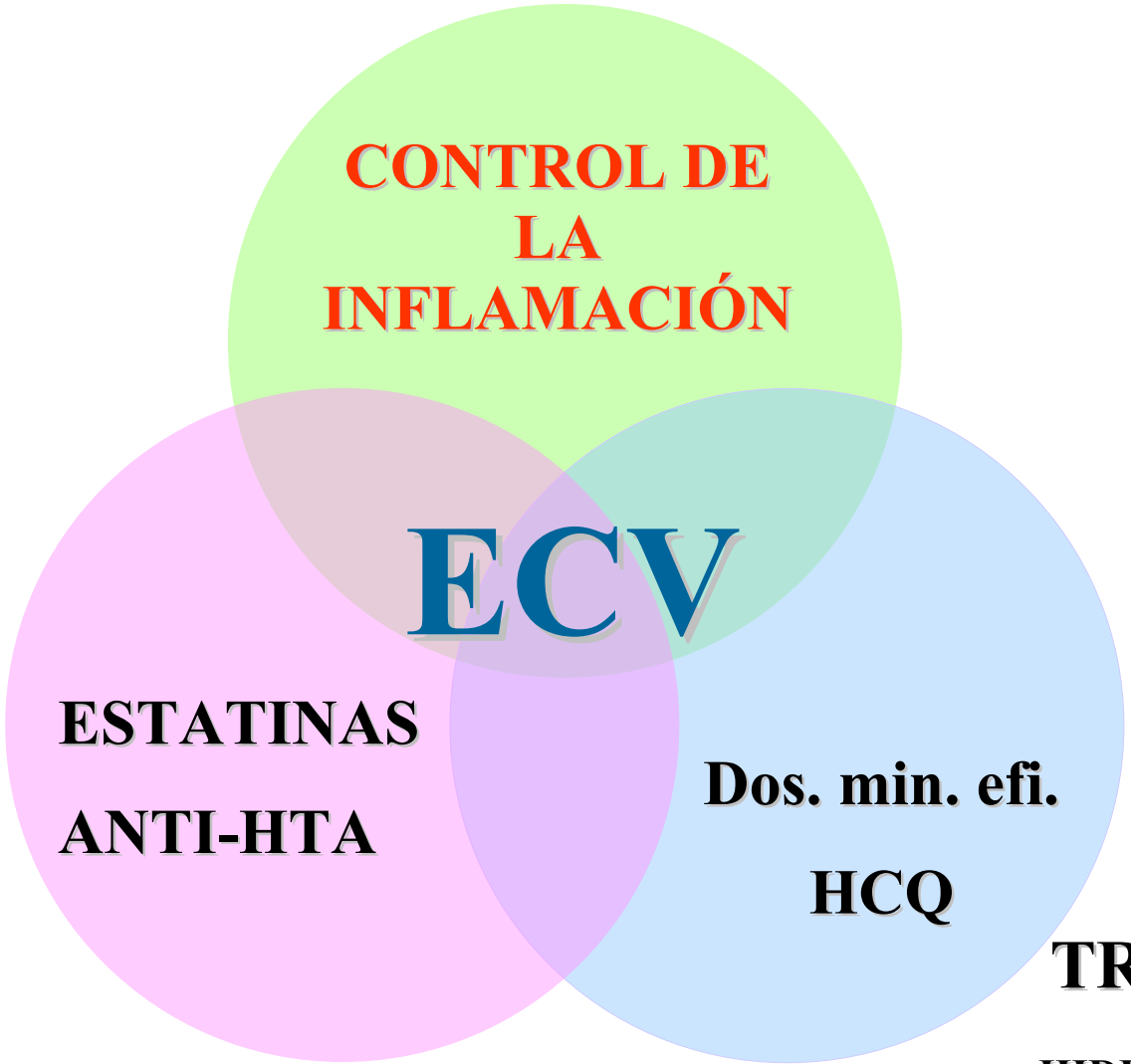
TRATAMIENTO
PREDNISONA (-)
HIDROXICLOROQUINA (+)

TRATAMIENTO DE LOS FRCV TRADICIONALES

FRCV CLÁSICOS

TRATAMIENTO
PREDNISONA (-)
HIDROXICLOROQUINA (+)

TRATAMIENTO DE LOS FRCV TRADICIONALES



FRCV CLÁSICOS

TRATAMIENTO
PREDNISONA (-)
HIDROXICLOROQUINA (+)


MUCHAS GRACIAS