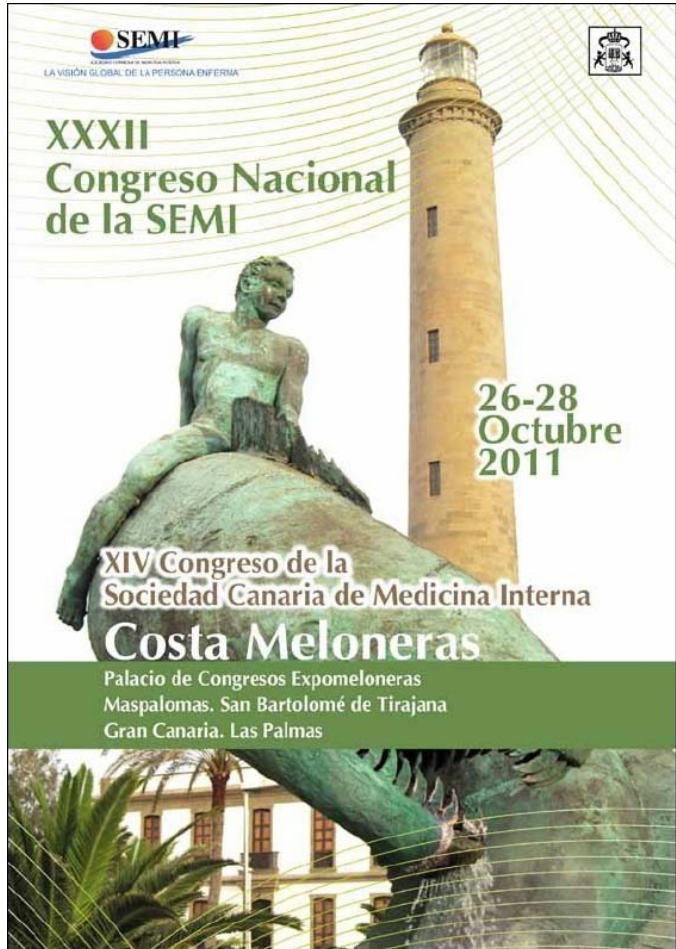
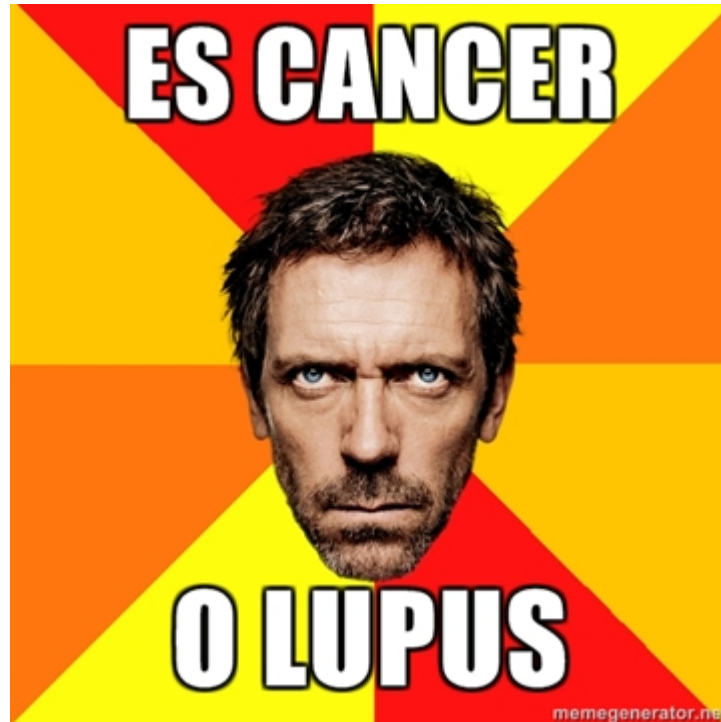


Cáncer y autoinmunidad: una relación bidireccional

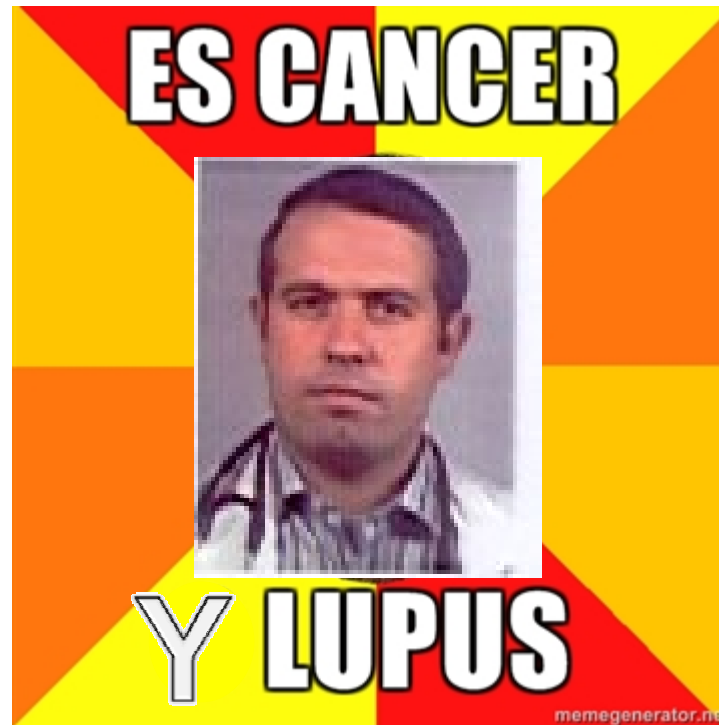


Miguel Yebra Bango
Servicio de Medicina Interna
Hospital Puerta de Hierro-Majadahonda

Cáncer y autoinmunidad: una relación bidireccional



Cáncer y autoinmunidad: una relación bidireccional



Cáncer y autoinmunidad: una relación bidireccional



Factores genéticos, hormonales ó ambientales

Infecciones virales

Actividad de la enfermedad

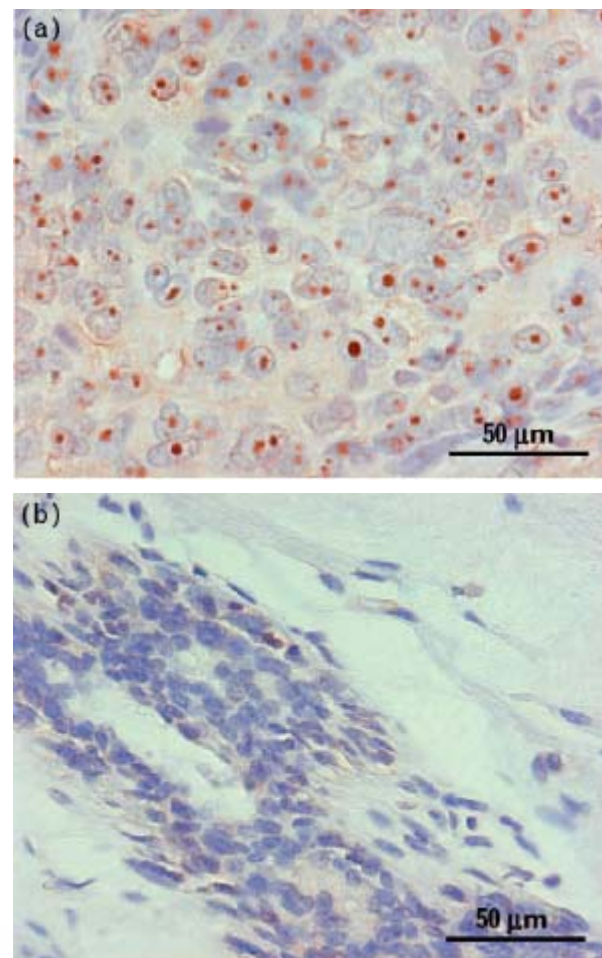
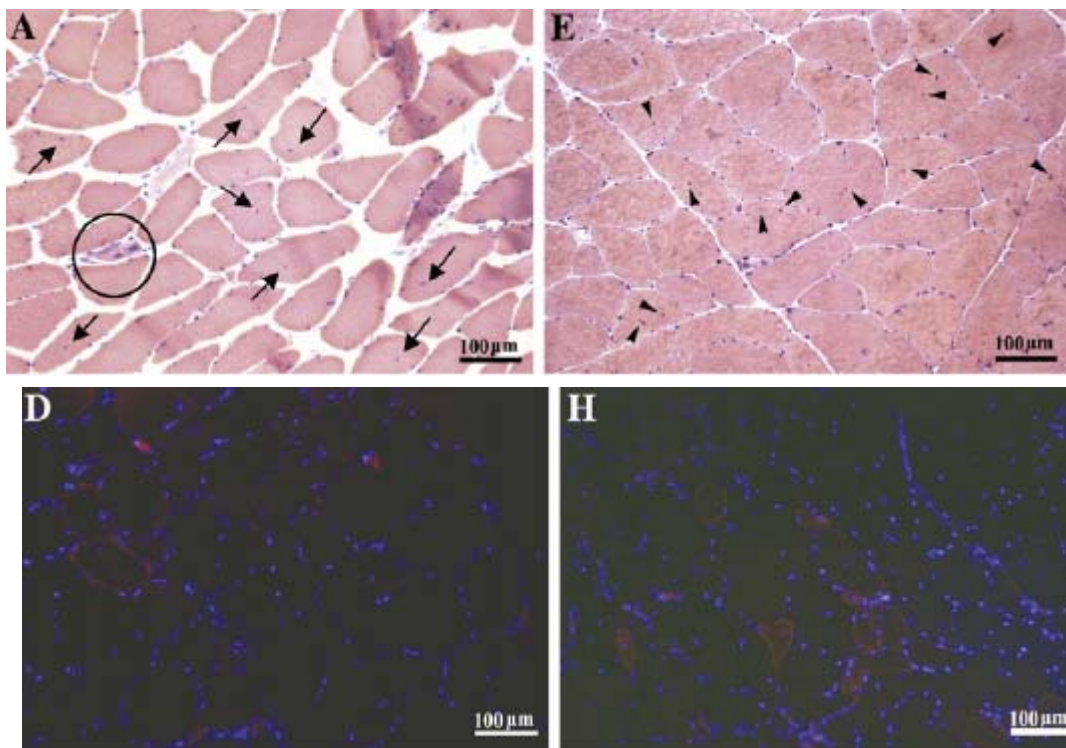
Tratamiento con inmuno moduladores ó agentes biológicos

Paraneoplásico
Criterios de
Bradford Hill

Polymyositis, dermatomyositis and malignancy: A further intriguing link

S. Zampieri^{a,b}, M. Valente^c, N. Adami^a, D. Biral^d, A. Ghirardello^b, M.E. Rampudda^b, M. Vecchiato^e, G. Sarzo^e, S. Corbianco^a, H. Kern^f, U. Carraro^a, F. Bassetto^g, S. Merigliano^e, A. Doria^{b,*}

Autoimmunity Reviews 9 (2010) 449–453

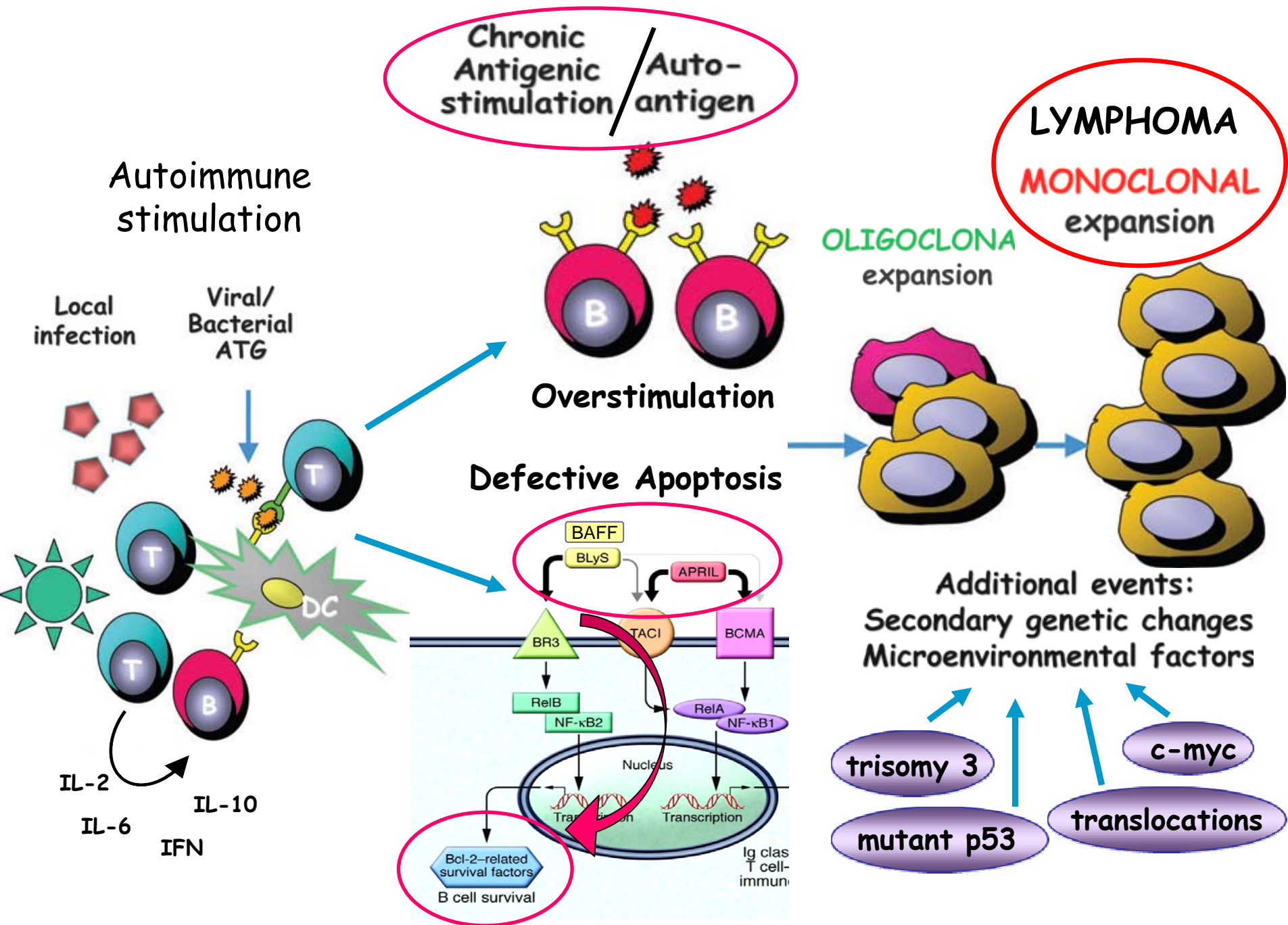


Expresión de NCAM

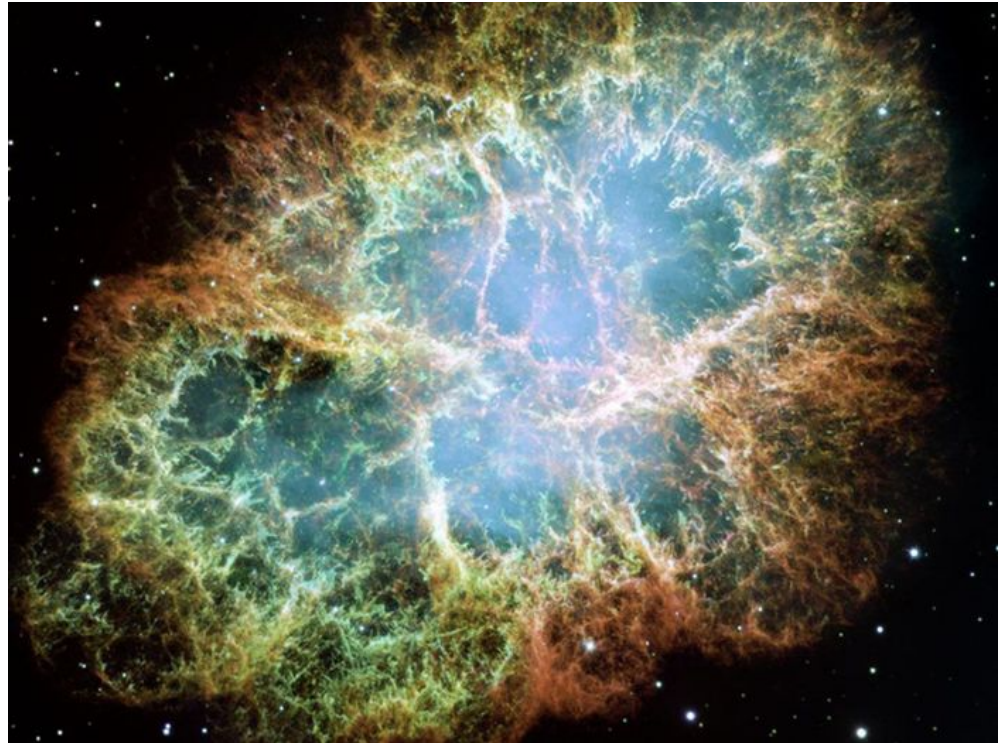
Close Temporal Relationship Between Onset of Cancer and Scleroderma in Patients With RNA Polymerase I/III Antibodies

Ami A. Shah, Antony Rosen, Laura Hummers, Fredrick Wigley, and Livia Casciola-Rosen

ARTHRITIS & RHEUMATISM
Vol. 62, No. 9, September 2010, pp 2787–2795



Lupus y cáncer



Lupus y cáncer

| Estudio | Nº Total (% M) | Nº Cancer (%) | SIR global (95% CI) | SIR LNH (95%CI) |
|-------------------|-------------------|------------------|------------------------|---------------------|
| Bernatsky (05) | 9547(90) | 431(4,5%) | 1,15 (1,05-1,27) | 3,64 (2,63-4,93) |
| Bjornadal (02) | 5715(73) | 443(7,7) | 1,25 (1,14-1,37) | 2,86 (1,96-4,04) |
| Kang (10) | 914(100) | 16(1,7) | 1,45 (0,74-2,26) | 15,4 (2,90-37,7) |
| Mellemkjaer (97) | 1585(84) | 102(6,4) | 1,30 (1,06-1,58) | 5,2 (2,2-10,3) |
| Parikh-Patel (08) | 30478(89) | 1273(4,1) | 1,14 (1,07- 1,20) | 2,74 (2,22-3,34) |
| Total | 47325(89) | 2265(5%) | | |

An International Cohort Study of Cancer in Systemic Lupus Erythematosus

S. Bernatsky,¹ J. F. Boivin,² L. Joseph,³ R. Rajan,¹ A. Zoma,⁴ S. Manzi,⁵ E. Ginzler,⁶ M. Urowitz,⁷ D. Gladman,⁷ P. R. Fortin,⁷ M. Petri,⁸ S. Edworthy,⁹ S. Barr,⁹ C. Gordon,¹⁰ S. C. Bae,¹¹ J. Sibley,¹² D. Isenberg,¹³ A. Rahman,¹³ C. Aranow,¹⁴ M. A. Dooley,¹⁵ K. Steinsson,¹⁶ O. Nived,¹⁷ G. Sturfelt,¹⁷ G. Alarcón,¹⁸ J. L. Senécal,¹⁹ M. Zimmer,²⁰ J. Hanly,²¹ S. Ensworth,²² J. Pope,²³ H. El-Gabalawy,²⁴ T. McCarthy,²⁴ Y. St. Pierre,¹ R. Ramsey-Goldman,²⁵ and A. Clarke¹

| Malignancy | Observed | Expected | SIR | 95% CI† |
|------------------------|----------|----------|------|------------|
| Total cancers | 431 | 373.3 | 1.15 | 1.05–1.27 |
| Hematologic cancers | | | | |
| All‡ | 67 | 24.4 | 2.75 | 2.13–3.49 |
| Non-Hodgkin's lymphoma | 42 | 11.5 | 3.64 | 2.63–4.93 |
| Hodgkin's lymphoma | 5 | 2.1 | 2.36 | 0.75–5.51 |
| Leukemia | 7 | 3.7 | 1.89 | 0.76–3.88 |
| Reproductive cancers | | | | |
| Breast | 73 | 96.1 | 0.76 | 0.60–0.95 |
| Ovary | 9 | 14.5 | 0.62 | 0.28–1.18 |
| Cervix§ | 14 | 11.1 | 1.26 | 0.69–2.11 |
| Vagina | 2 | 0.4 | 4.91 | 0.49–17.69 |
| Vulva | 2 | 1.3 | 1.60 | 0.16–5.76 |
| Uterus | 6 | 16.9 | 0.36 | 0.13–0.78 |
| Other cancers | | | | |
| Lung | 62 | 45.3 | 1.37 | 1.05–1.76 |
| Hepatobiliary | 10 | 3.8 | 2.60 | 1.25–4.78 |
| Pancreas | 7 | 7.6 | 0.93 | 0.37–1.91 |
| Gastric | 9 | 8.4 | 1.07 | 0.49–2.03 |
| Colorectal | 40 | 39.5 | 1.01 | 0.72–1.38 |
| Thyroid | 9 | 6.2 | 1.45 | 0.66–2.76 |
| Bladder | 13 | 10.5 | 1.23 | 0.66–2.11 |
| Prostate | 8 | 11.1 | 0.72 | 0.31–1.43 |
| Melanoma | 9 | 9.3 | 0.97 | 0.44–1.84 |

23 centros= 9.547 pacientes
Seguimiento= 8 años

The relationship between cancer and medication exposures in systemic lupus erythaematosus: a case-cohort study

S Bematsky,¹ L Joseph,² J-F Boivin,¹ C Gordon,⁴ M Urowitz,⁵ D Gladman,⁵ P R Fortin,⁵ E Ginzler,⁶ S-C Bae,⁷ S Barr,⁸ S Edworthy,⁸ D Isenberg,⁹ A Rahman,⁹ M Petri,¹⁰ G S Alarcón,¹¹ C Aranow,¹² M-A Dooley,¹³ R Rajan,¹⁴ J-L Sénécal,¹⁵ M Zummer,¹⁶ S Manzi,¹⁷ R Ramsey-Goldman,¹⁸ A E Clarke²

Ann Rheum Dis 2008;**67**:74–79.

| Todos los tumores (246 casos) | HR | 95% CI |
|--|-----------|---------------|
| Edad>65 años | 2,69 | 1,38-5,24 |
| Daño visceral (SLICC) | 3,07 | 1,97-4,81 |
| Inmunosupresores | 0,82 | 0,5-1,36 |
| Antimalaricos | 1,04 | 0,59-1,04 |
| Cancer de pulmón (35 casos) | HR | 95% CI |
| Tabaco | 3,60 | 1,32-9,83 |
| Tumores hematológicos (46 casos) | HR | 95%CI |
| Sindrome de Sjogren | 0,62 | 0,16-2,35 |
| Tumores hematológicos en pacientes tratados >5 años con inmunosupresores | HR | 95%CI |
| Inmunosupresores | 2,29 | 1,02-5,15 |

Antimalarials may influence the risk of malignancy in systemic lupus erythematosus

G Ruiz-Irastorza, A Ugarte, M V Egurbide, M Gamendia, J I Pijoan, A Martinez-Berriotxo, C Aguirre

Ann Rheum Dis 2007;66:815-817. doi: 10.1136/ard.2006.067777

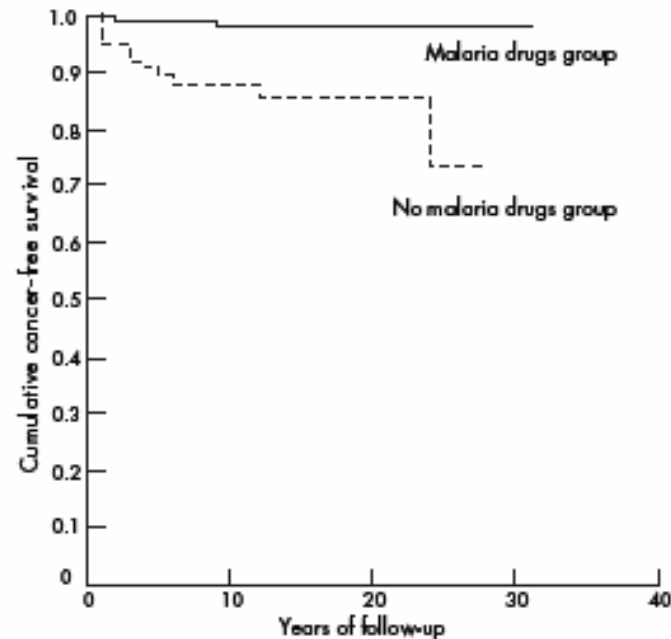


Figure 1 Kaplan-Meier cancer-free survival curves.

- Críticas:1) No se tuvo en cuenta el comienzo con antimalaricos, sólo si/no
- 2) No se controló la toma de AINES que pueden ser protectores

Breast, ovarian, and endometrial malignancies in systemic lupus erythematosus: a meta-analysis

S Bernatsky^{*,1,2}, R Ramsey-Goldman³, WD Foulkes⁴, C Gordon⁵ and AE Clarke^{2,6}

| ESTUDIO | TIPO | Nº |
|-------------------------|----------------------|-------|
| Bernatsky et al(2005) | Multicéntrico | 9547 |
| Bjornadal et al (2002) | Administración sueca | 5715 |
| Kang et al (2010) | Clínica de Korea | 914 |
| Mellenkjer et al (1997) | Administración | 1585 |
| Park-Patel et al (2008) | Administración USA | 30478 |
| TOTAL | | 47327 |

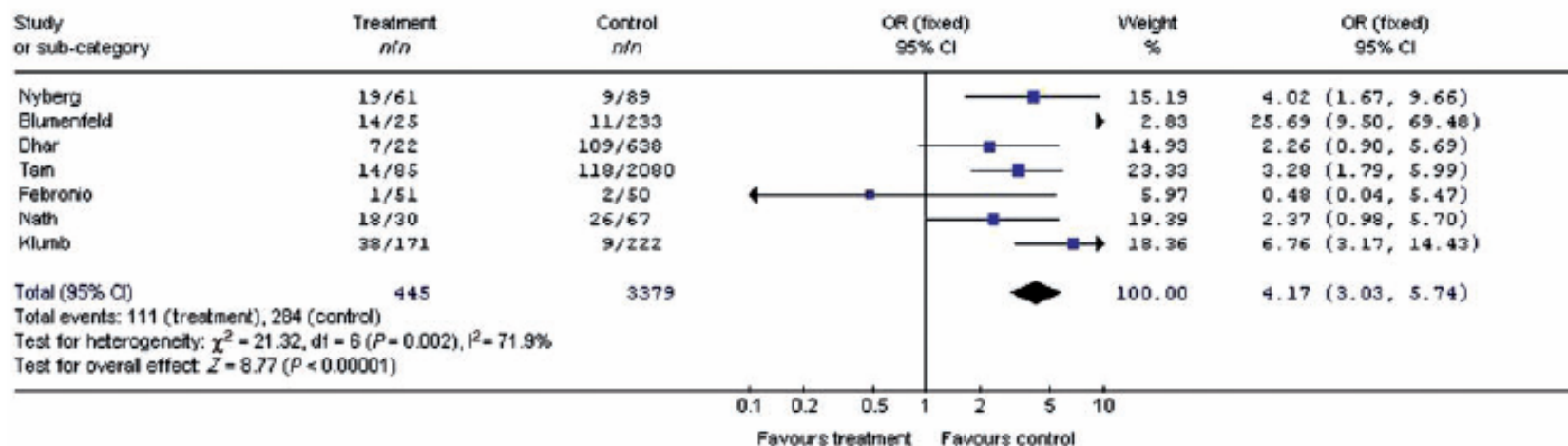
| TIPO | O | E | SIR | 95% CI |
|------------|-----|-------|------|-----------|
| MAMA | 376 | 496,9 | 0,76 | 0,69-0,85 |
| ENDOMETRIO | 66 | 92,8 | 0,71 | 0,55-0,91 |
| OVARIO | 44 | 65,3 | 0,66 | 0,49-0,90 |

Original article

Meta-analysis of systemic lupus erythematosus and the risk of cervical neoplasia

Hongli Liu¹, Qian Ding¹, Kunyu Yang¹, Tao Zhang¹, Guiling Li¹ and Gang Wu¹

| Reference | Study | Country and district | Year | Case | | Control | |
|-----------|------------|----------------------|------|--------------------|--------|--------------------|--------|
| | | | | Cervical neoplasia | Normal | Cervical neoplasia | Normal |
| [21] | Nyberg | Sweden | 1981 | 19 | 61 | 9 | 89 |
| [22] | Blumenfeld | Israel | 1994 | 14 | 25 | 11 | 233 |
| [8] | Dhar | USA | 2001 | 7 | 22 | 109 | 638 |
| [2] | Tam | Hong Kong | 2004 | 14 | 85 | 118 | 2080 |
| [7] | Nath | UK | 2007 | 18 | 30 | 26 | 67 |
| [23] | Febronio | Brazil | 2007 | 1 | 51 | 2 | 50 |
| [24] | Klumb | Brazil | 2010 | 38 | 171 | 9 | 222 |



PAPER

Are women with lupus at higher risk of HPV infection?

EM Klumb¹, AC Pinto², GR Jesus³, M Araujo Jr⁴, L Jascone², CR Gayer², FM Ribeiro¹, EMN Albuquerque¹
and JMB Macedo²

| Población | HPV |
|-------------------------------------|-------|
| LES (173) | 20,2% |
| LES+inmunosupresión intensa (85) | 28,3% |
| LES+ inmunosupresión leve o no (88) | 12,5% |
| Controles (217) | 2,9% |

Non-Hodgkin's lymphoma in systemic lupus erythematosus

S Bernatsky, R Ramsey-Goldman, R Rajan, J-F Boivin, L Joseph, S Lachance, D Cournoyer, A Zoma, S Manzi, E Ginzler, M Urowitz, D Gladman, P R Fortin, S Edworthy, S Barr, C Gordon, S-C Bae, J Sibley, K Steinsson, O Nived, G Sturfelt, Y St Pierre, A Clarke

Ann Rheum Dis 2005;**64**:1507–1509.

| Características del linfoma | Nº 42 |
|-----------------------------|-----------------------|
| Edad media | 57 años |
| Mujeres | 36 |
| Estadio | Diseminados 64% |
| Muerte | 52% (90% por linfoma) |
| Media de supervivencia | 1,2 años |

| Total linfomas con subtipo especificado | 21 |
|---|---------|
| Linfoma B difuso de célula grande | 11(50%) |
| Linfoma B difuso de célula pequeña | 4 |
| Linfoma B folicular | 3 |
| Linfoma MALT | 1 |
| Linfoma Burkitt | 1 |
| Linfoma T | 1 |

Cancer Screening in Patients with Systemic Lupus Erythematosus

SASHA R. BERNATSKY, GLINDA S. COOPER, CHRIS MILL, ROSALIND RAMSEY-GOLDMAN, ANN E. CLARKE,
and CHRISTIAN A. PINEAU

(J Rheumatol 2006; 33:45-9;



| Técnica | % población general Indicada y realizada | % pacientes con LES indicada y realizada |
|------------------------|--|---|
| Mamografía | 74% | 53% |
| SOH+/- colonoscopia | 48% | 18% |
| Citología cervical | 56% | 33% |

Síndrome de Sjogren y cáncer



La puerta del infierno. Desierto de Karakum. Turkmenistan


Síndrome de Sjogren y cáncer



Increased Risk of Lymphoma in Sicca Syndrome

STUART S. KASSAN, M.D.; TERRY L. THOMAS, M.S.; HARALAMPOS M. MOUTSOPOULOS, M.D.; ROBERT HOOVER, M.D.; ROBERT P. KIMBERLY, M.D.; DANIEL R. BUDMAN, M.D.; JOSE COSTA, M.D.; JOHN L. DECKER, M.D.; and THOMAS M. CHUSED, M.D.;
Bethesda, Maryland

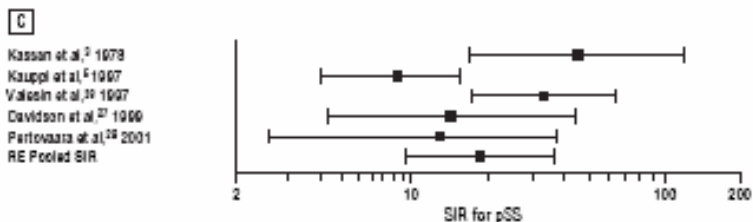
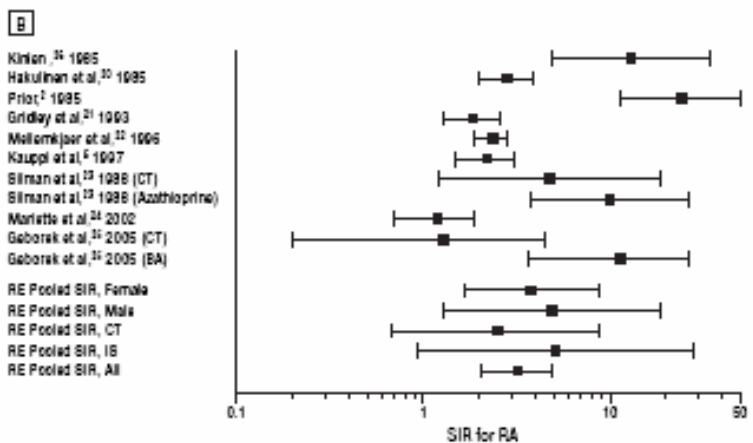
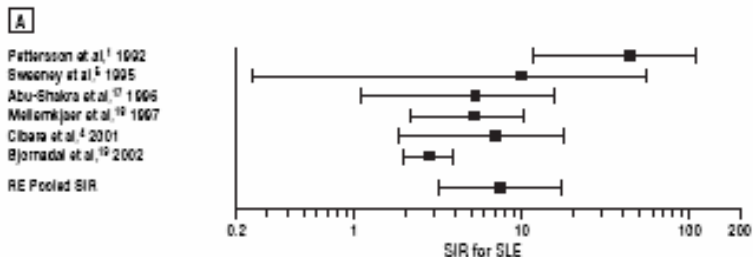
Annals of Internal Medicine 89:888-892, 1978

The risk of cancer was ascertained in 136 women with sicca syndrome followed at the National Institutes of Health (NIH). Seven patients developed non-Hodgkin's lymphoma from 6 months to 13 years after their first admission to NIH. This  is 43.8 times ($P < 0.01$) the incidence expected from the rates of cancer prevailing among women of the same age range in the general population during this time. In addition,

The Risk of Lymphoma Development in Autoimmune Diseases

A Meta-analysis

Elias Zintzaras, PhD; Michael Voulgarelis, MD, PhD; Haralampos M. Moutsopoulos, MD, FACP, FRCP



Voulgarelis & Moutsopoulos

• Sjögren's

18.9*

• SLE

7.5*

• RA

3.3*

*Standardized Incidence Rates

Mortality in Sjögren's syndrome

M. Voulgarelis, A.G. Tzioufas, H.M. Moutsopoulos

| | Number of deaths in each study attributable to each acute cause | | | | | |
|-------------------------|---|-------------------|-------------------|------------------|---------------------|------------------|
| | Skopouli (6) | Petrovaara (5) | Ioannidis (17) | Theander (22) | Brito-Zeron (24) | Alamanos (22) |
| Vascular causes | 4 | 9 | 12 | 11 | 9 | NR |
| <i>Cardiovascular</i> | 2 | 6 | 5 | 11 | 9 | – |
| <i>Cerebrovascular</i> | 2 | 3 | 7 | 0 | 0 | – |
| Malignancy | 4 | 4 | 17 | 6 | 5 | NR |
| <i>Lymphoma</i> | 3 | 2 | 7 | 6 | 2 | 3 |
| Infection | – | 3 | 3 | – | 8 | NR |
| Renal | – | – | – | – | – | – |
| Pulmonary | 2 | – | 2 | – | – | – |
| Drug toxicity | – | 1 | – | – | – | – |
| Other causes | 1 | – | 5 | 17 | 3 | – |
| Total no. deaths | 11 | 17 | 39 | 34 | 25 | 47 |

Muerte por Linfoma 1 de cada 5 fallecimientos

Hematologic Manifestations and Predictors of Lymphoma Development in Primary Sjögren Syndrome

Clinical and Pathophysiologic Aspects

Evangelia Baimpa, MD, Issa J. Dahabreh, MD, Michael Voulgarelis, MD, PhD, and Haralampos M. Moutsopoulos, MD, FACP, FRCP

TABLE 4. Clinical and Histologic Features of 40 pSS Patients who Developed Lymphoma

| | Subtype of Lymphoma | | | |
|---------------------------------------|--------------------------|------------------------|------------------|---------------------------|
| | MALT Lymphoma No. (%) | Nodal MZBCL No. (%) | DLBCL No. (%) | Miscellaneous* No. (%) |
| Cases | 21/40 (52.5) | 5/40 (12.5) | 7/40 (17.5) | 7/40 (17.5) |
| Sex | | | | |
| Male | 1 (4.8) | 0 (0) | 0 (0) | 0 (0) |
| Female | 20 (95.2) | 5 (100) | 7 (100) | 7 (100) |
| Age (yr) | | | | |
| Mean ± SD | 50.71 ± 1 1.6 | 48 ± 9 .4 | 58.4 ± 1 5.1 | 64.1 ± 8.6 |
| Range | 30–74 | 37–61 | 42–76 | 52–80 |
| Ann Arbor disease stage | | | | |
| I–II | 16 (76.2) | 1 (20) | 5 (71.4) | 3 (42.9) |
| III–IV | 5 (23.8) | 4 (80) | 2 (28.6) | 4 (57.1) |
| Nodal involvement | 3 (14.3) | 5 (100) | 6 (85.7) | 6 (85.7) |
| Extranodal involvement† | 21 (100) | 1 (20) | 3 (42.9) | 0 (0) |
| Both nodal and extranodal involvement | 3 (14.3) | 1 (20) | 2 (28.6) | 0 (0) |
| Bulky disease‡ | 1 (4.8) | 1 (20) | 0 (0) | 0 (0) |
| B- symptoms§ | 2 (9.5) | 1 (20) | 3 (42.9) | 5 (71.4) |
| Splenomegaly | 2 (9.5) | 4 (80) | 3 (42.9) | 3 (42.9) |
| Bone marrow involvement | 4 (19) | 3 (60) | 1 (14.3) | 4 (57.1) |

†Extranodal sites of lymphoma localization: parotid gland (n = 14), submandibular salivary gland (n = 6), lacrimal gland (n = 3), and lung (n = 2).

Extranodal (25): Glándula parótida (14), submaxilar (6), lagrimal (3) y pulmón (2)

Autoimmune disorders and risk of non-Hodgkin lymphoma subtypes: a pooled analysis within the InterLymph Consortium

Karin Ekström Smedby,¹ Claire M. Vajdic,² Michael Falster,² Eric A. Engels,³ Otoniel Martínez-Maza,⁴ Jennifer Turner,⁵ Henrik Hjalgrim,⁶ Paolo Vineis,⁷ Adele Seniori Costantini,⁸ Paige M. Bracci,⁹ Elizabeth A. Holly,⁹ Eleanor Willett,¹⁰ John J. Spinelli,¹¹ Carlo La Vecchia,¹² Tongzhang Zheng,¹³ Nikolaus Becker,¹⁴ Silvia De Sanjosé,¹⁵ Brian C.-H. Chiu,¹⁶ Luigino Dal Maso,¹⁷ Pierluigi Cocco,¹⁸ Marc Maynadié,¹⁹ Lenka Foretova,²⁰ Anthony Staines,²¹ Paul Brennan,²² Scott Davis,²³ Richard Severson,²⁴ James R. Cerhan,²⁵ Elizabeth C. Breen,²⁶ Brenda Birmann,²⁷ Andrew E. Grulich,² and Wendy Cozen²⁸

BLOOD, 15 APRIL 2008 • VOLUME 111, NUMBER 8

| Enfermedad | Nº estudios | Enfermos | Controles | OR |
|------------|-------------|----------------|---------------|-----------------|
| S Sjogren | 8 | 52/8178 (0,6%) | 8/10543(0,1%) | 6,56 (3,1-13,9) |
| SS 1º | 8 | 23/8176(0,3%) | 5/10543(0,0%) | 4.75(1,79-12,6) |
| SS 2º | 8 | 29/8176 (0,4%) | 3/10542(0,0%) | 9,57(2,9-31,6) |

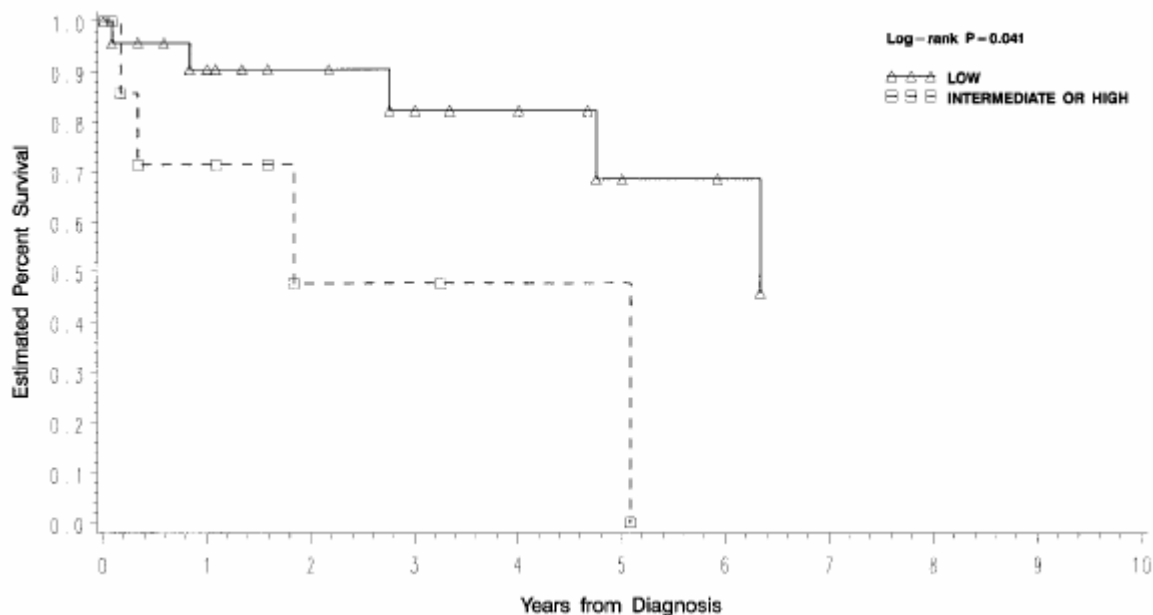
| Enfermedad | Difuso B | OR | Zona marginal | OR |
|------------|----------|-----------------|---------------|-----------------|
| S Sjogren | 18/2350 | 8,92(3,83-20,7) | 15/396 | 30,6(12,3-76,1) |
| SS 1º | 8/2348 | 6,57(2,12-20,3) | 8/396 | 23,1(7,16-74,6) |
| SS 2º | 10/2348 | 12,8(3,49-47,3) | 7/396 | 44,6(10,6-187) |

Linfoma NHDK en general y MALT en particular, de localización parotídea OR 358 y 996 respectivamente

MALIGNANT LYMPHOMA IN PRIMARY SJÖGREN'S SYNDROME

A Multicenter, Retrospective, Clinical Study by the
European Concerted Action on Sjögren's Syndrome

MICHALIS VOULGARELIS, URANIA G. DAFNI, DAVID A. ISENBERG,
HARALAMPOS M. MOUTSOPOULOS, and the MEMBERS OF THE EUROPEAN CONCERTED ACTION
ON SJÖGREN'S SYNDROME

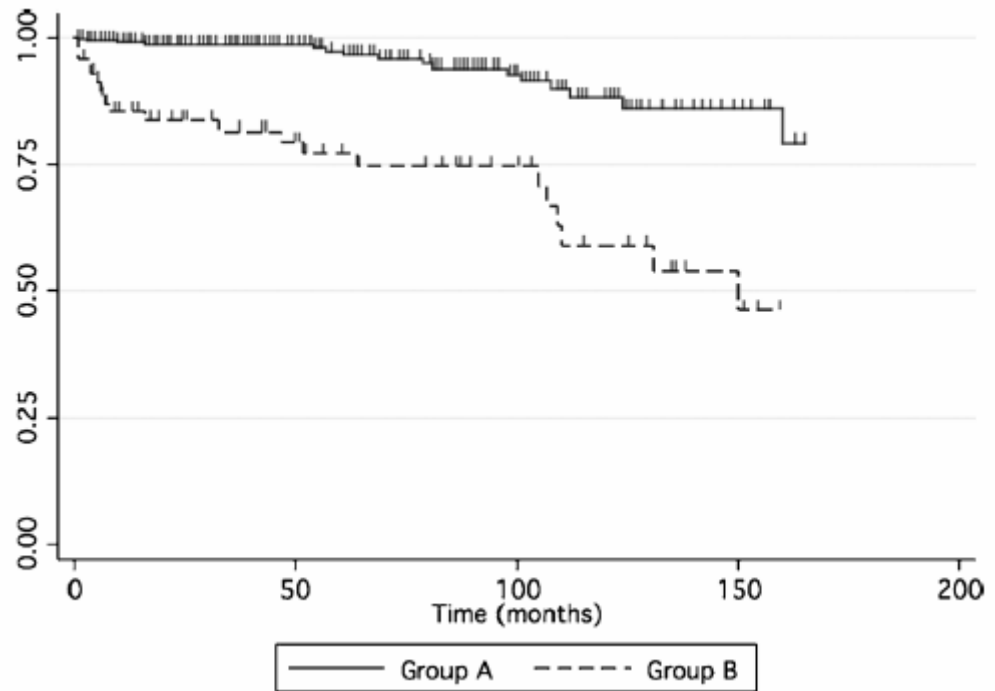


Supervivencia media 1,83 vs 6,33 años

Hematologic Manifestations and Predictors of Lymphoma Development in Primary Sjögren Syndrome

Clinical and Pathophysiologic Aspects

*Evangelia Baimpa, MD, Issa J. Dahabreh, MD, Michael Voulgarelis, MD, PhD,
and Haralampos M. Moutsopoulos, MD, FACP, FRCP*



ADENOPATIAS
ESPLENOMEGALIA
NEUTROPENIA
CRIOGLOBULINEMIA
NIVELES BAJOS DE C4

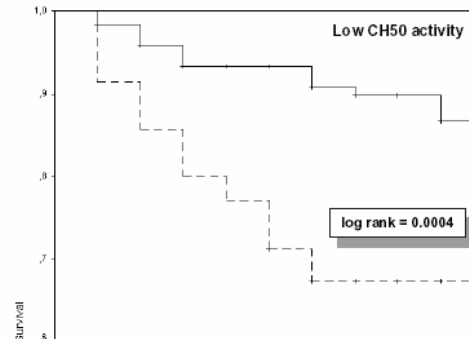
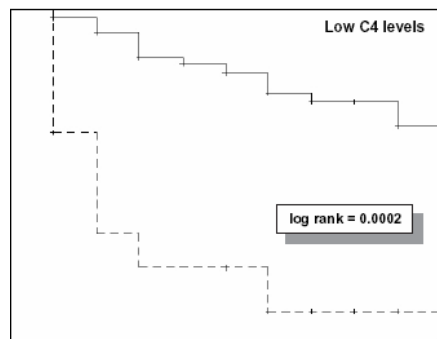
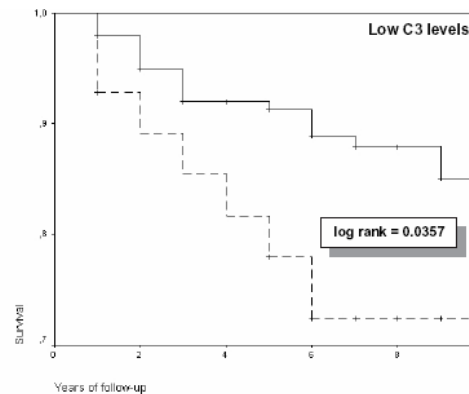
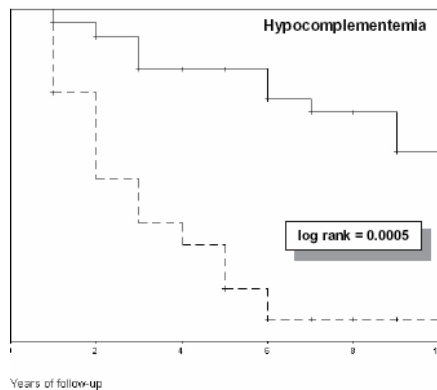
Bajo riesgo (ningún factor de riesgo) 3,6%
Alto riesgo (alguno de los factores de riesgo) 20%

HR 5,3 (2,7-10,6)

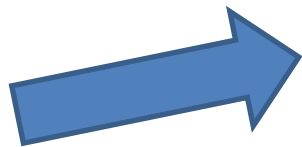
(*Medicine* 2009;88: 284-293)

Hypocomplementaemia as an immunological marker of morbidity and mortality in patients with primary Sjögren's syndrome

M. Ramos-Casals, P. Brito-Zerón, J. Yagüe¹, M. Akasbi, R. Bautista, M. Ruano, G. Claver, V. Gil and J. Font



Multivariable



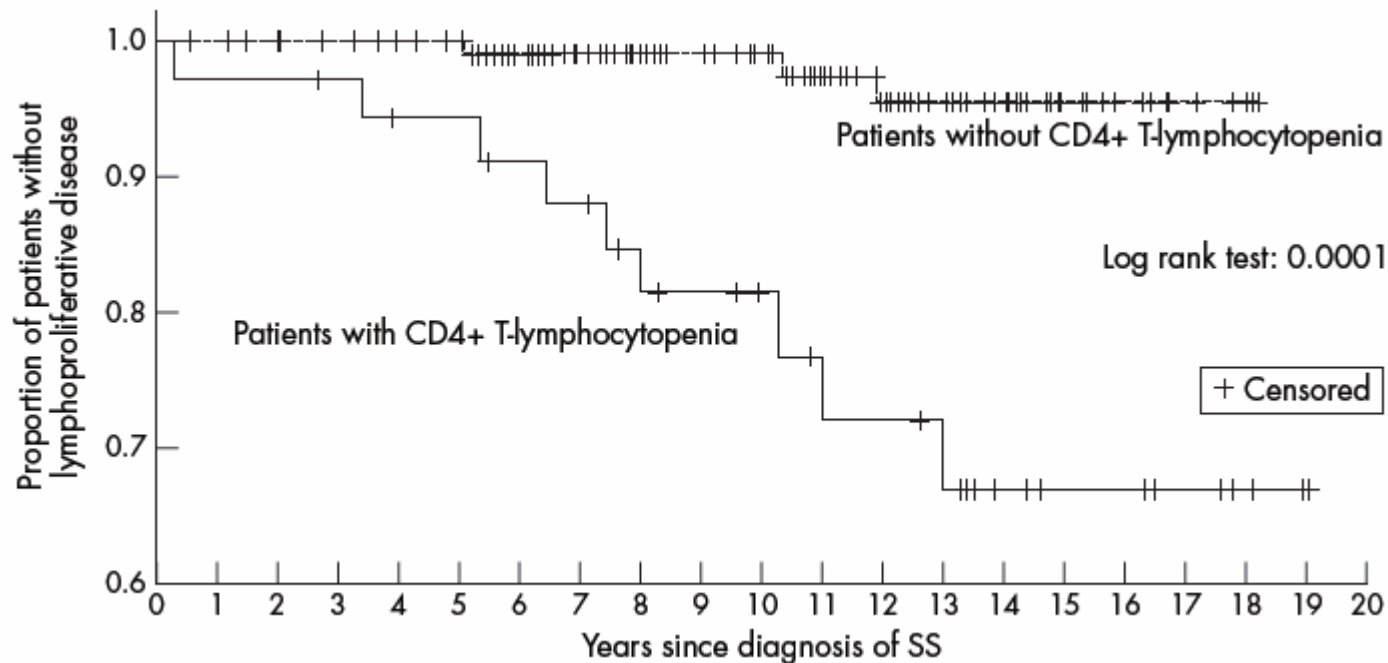
Low C4 levels

S Lymphoma and other malignancies in primary Sjögren's syndrome: a cohort study on cancer incidence and lymphoma predictors

E Theander, G Henriksson, O Ljungberg, T Mandl, R Manthorpe, L T H Jacobsson



Ann Rheum Dis 2006;65:796-803. doi: 10.1136/ard.2005.041186

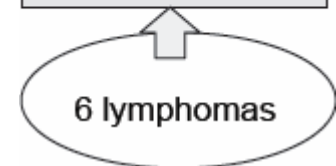
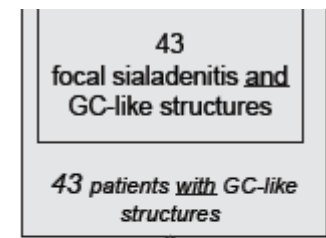
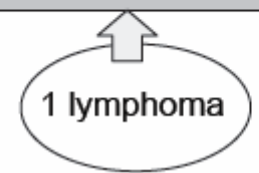
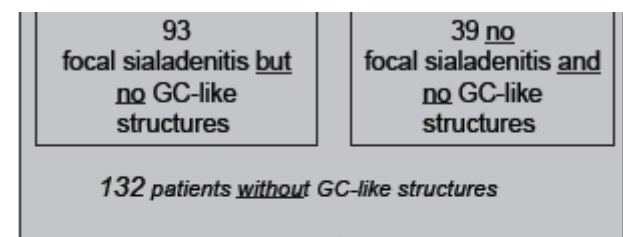
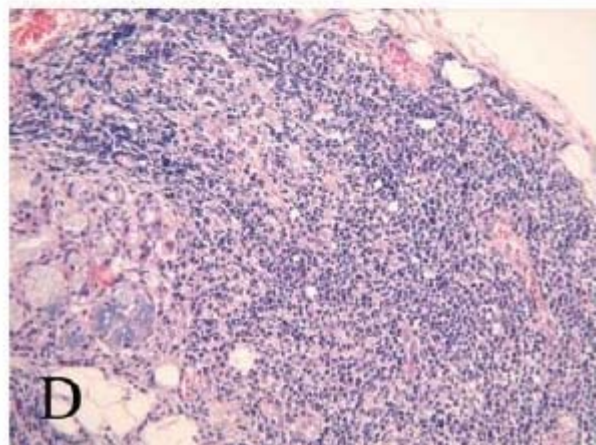
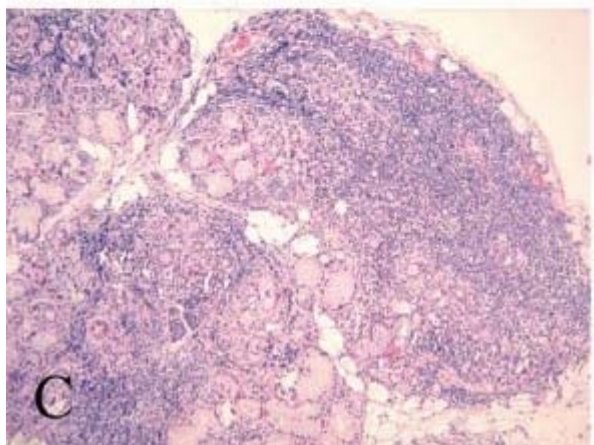
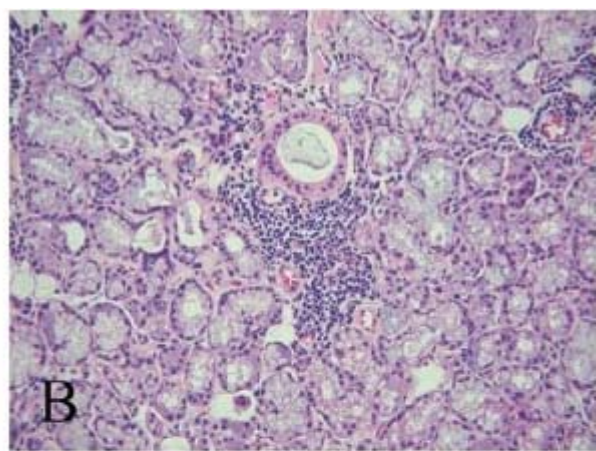
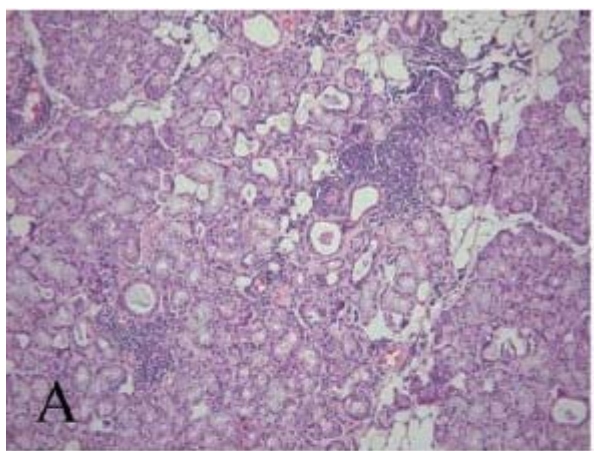


Pacientes con SS 507
Linfomas 12
Linfoma B difuso de célula grande 7

Lymphoid organisation in labial salivary gland biopsies is a possible predictor for the development of malignant lymphoma in primary Sjögren's syndrome

Ann Rheum Dis 2011;**70**:1363–1368. doi:10.1136/ard.2010.144782

Elke Theander,¹ Lilian Vasaitis,² Eva Baecklund,² Gunnel Nordmark,² Gunnar Warfvinge,³ Rolf Liedholm,⁴ Karl Brokstad,⁵ Roland Jonsson,^{5,6} Malin V Jonsson^{5,7}



Mucosa-Associated Lymphoid Tissue Lymphoma in Sjögren's Syndrome: Risks, Management, and Prognosis

Michael Voulgarelis, MD*, Haralampos M. Moutsopoulos, MD, FACP, FRCP

Rheum Dis Clin N Am 34 (2008) 921–933

- Localized extranodal marginal zone lymphoma of MALT type (*only stage I*)



Wait and see policy:

frequent staging procedures including clinical examination, CT scans, digestive tract endoscopic evaluation, bone marrow biopsy

- Disseminated extranodal marginal zone lymphoma of MALT type (*multiple mucosal involvement, bone marrow or nodal disease*)
- High IPI score



Lymphoma-directed therapy:

2-cdA (*Voulgarelis et al, Arthritis Rheum 2002, Jager et al, J Clin Oncol 2002*)
or
Chlorambucil (*Hammel et al, J Clin Oncol 1995*)
or
Rituximab (*Conconi et al, Blood 2003*)

- High grade transformation in the setting of MALT or de novo DLBCL (*solid clusters of large cells*)



Combined chemotherapy:

Rituximab plus CHOP (*Voulgarelis et al, Rheumatology, 2004, Voulgarelis et al, Ann Rheum Dis, 2006*)

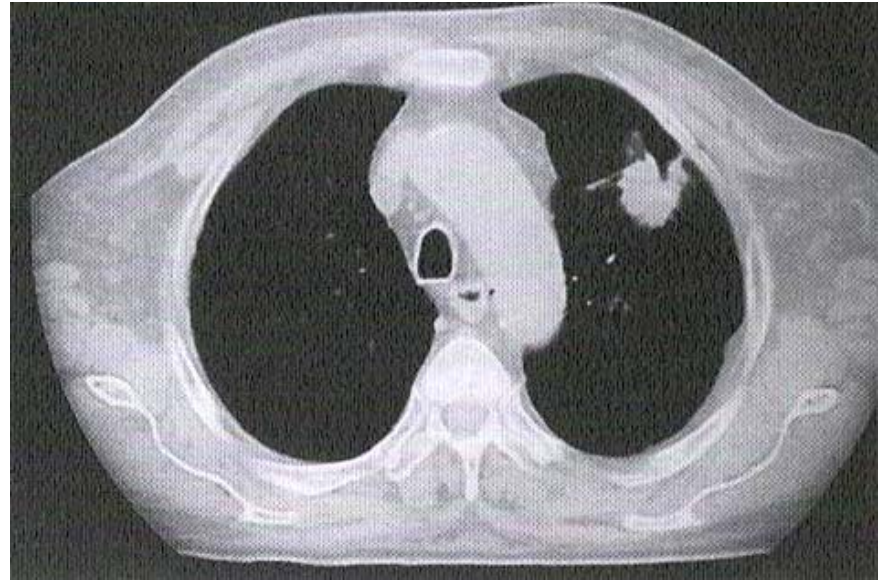


DM/PM y Cáncer



Sansón y Dalila. Peter Paul Rubens. 1609. National Gallery. Londres

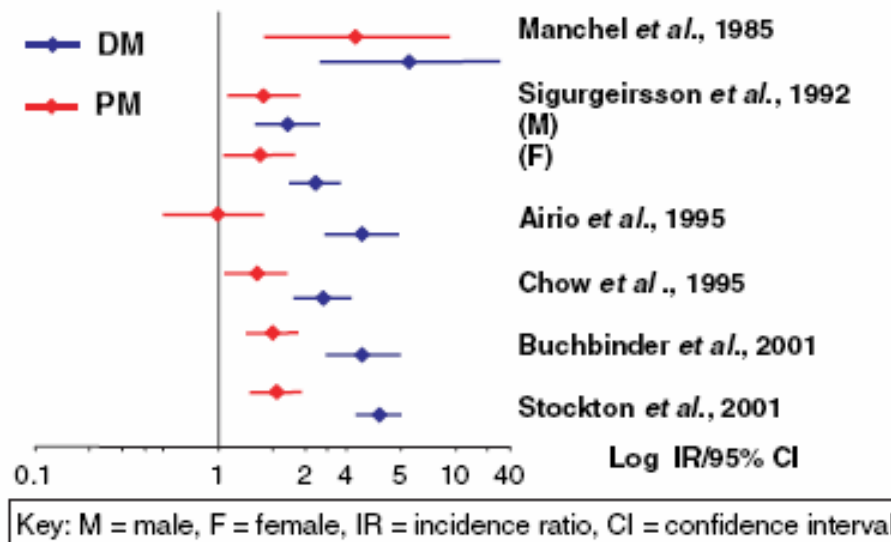
DM/PM y Cáncer



DM y cáncer

| Referencias | Nº pacientes | | | Nº tumores | | SIR(95%CI) | |
|--------------------|--------------|-----|-----|------------|----|------------------------------|--------------------------------|
| | Total | PM | DM | PM | DM | PM | DM |
| Sigurgeirsson (92) | 788 | 396 | 392 | 58 | 94 | 1,8 (1,1-2,7) 1,7 (1-2,5) | 2,4 (1,6-3,6) 3,4 (2,4-4,7) |
| Airo (95) | 315 | 175 | 71 | 26 | 63 | 1 (0,5-1,8) | 6,5 (3,9-10) |
| Chow (95) | 539 | 336 | 203 | 26 | 26 | 3,8 (2,6-5,4) | 1,7 (1,1-2,4) |
| Stockton (01) | 705 | 419 | 286 | 71 | 77 | 2,1 (1,5-2,9) | 7,7 (5,7-10,1) |
| Buchbinder (01) * | 537 | 321 | 85 | 58 | 36 | 2 (1,4-2,7) | 6,2 (3,9-10) |

(*) Revision histológica.



Frequency of specific cancer types in dermatomyositis and polymyositis: a population-based study

Catherine L Hill, Yuqing Zhang, Bardur Sigurgeirsson, Eero Pukkala, Lene Mellemkjaer, Antti Airio, Stephen R Evans, David T Felson

Lancet 2001; 357: 96–100

| Tipo de cáncer | Dermatomiositis (618) | SIR | Polimiositis (914) | SIR |
|-----------------------|-----------------------|------|--------------------|-----|
| TODOS | 115 | 3 | 95 | 1,3 |
| Ovario | 13 | 10,5 | | |
| Pulmón | 19 | 5,9 | 20 | 2,8 |
| Páncreas | 5 | 3,8 | | |
| Estómago | 7 | 3,5 | | |
| Colo-rectal | 12 | 2,5 | | |
| Mama | 12 | 2,2 | | |
| Vejiga | | | 9 | 2,4 |
| Linfoma no HDK | 3 | 3,6 | 6 | 3,7 |

Sólo tumores cuyo CI >1

Ovarian Cancer in Patients with Dermatomyositis

S. ELIZABETH WHITMORE, M.D., NEIL B. ROSENSHEIN, M.D., AND THOMAS T. PROVOST, M.D.

ORIGINAL ARTICLE

Nasopharyngeal Carcinoma With Dermatomyositis

Analysis of 12 Cases

Ji-Chung Peng, MD; Tzung-Shiahn Sheen, MD; Mow-Ming Hsu, MD

ARCH OTOLARYNGOL HEAD NECK SURG/VOL 121, NOV 1995

1298

Malignancies associated with dermatomyositis and polymyositis in Taiwan: a nationwide population-based study

Y.L. Huang,*† Y.J. Chen,*‡ M.W. Lin,§¶ C.Y. Wu,**†† P.C. Liu,§ T.J. Chen,‡‡ Y.C. Chen,‡‡ J.S. Jih,*†
C.C. Chen,*† D.D. Lee,*† Y.T. Chang,*† W.J. Wang*† and H.N. Liu*†§§

Factors Associated With Underlying Malignancy in a Retrospective Cohort of 121 Patients With Dermatomyositis

Laurence Fardet, MD, PhD, Alain Dupuy, MD, PhD, Murielle Gain, MD, Adrien Kettaneh, MD, PhD, Patrick Chérin, MD, PhD, Hervé Bachelez, MD, PhD, Louis Dubertret, MD, Celeste Lebbe, MD, PhD, Patrice Morel, MD, and Michel Rybojad, MD

(Medicine 2009;88: 91–97)

| | HR [95% CI] | p Value |
|--|-------------------|---------|
| Age at diagnosis (yr) | | |
| ≤52 | 1 | — |
| >52 | 7.24 [2.35–22.31] | < 0.01 |
| Time between onset of symptoms and DM diagnosis (mo) | | |
| ≥4 | 1 | — |
| <4 | 3.11 [1.07–9.02] | 0.03 |
| Periungual erythema | | |
| No | 1 | — |
| Yes | 3.93 [1.16–13.24] | 0.02 |
| Skin necrosis | | |
| No | 1 | — |
| Yes | 3.84 [1.00–14.85] | 0.05 |
| Lymphocyte count | | |
| Normal (≥1500 /mm ³) | 1 | — |
| Low (<1500 /mm ³) | 0.33 [0.14–0.80] | 0.01 |
| C4 | | |
| Normal (≥16 mg/L) | 1 | — |
| Low (<16 mg/L) | 2.74 [1.11–6.75] | 0.02 |

The diagnostic utility of myositis autoantibody testing for predicting the risk of cancer-associated myositis

Hector Chinoy, Noreen Fertig, Chester V Oddis, William E R Ollier, Robert G Cooper

Ann Rheum Dis 2007;66:1345–1349. doi: 10.1136/ard.2006.068502

| Autoantibody status | n (%) | | |
|---------------------|---------------------------|------------------------------|--------------------------------------|
| | Polymyositis (n = 109) | Dermatomyositis (n = 103) | Myositis/CTD- overlap (n = 70) |

| Autoantibody status | n (%) | |
|---------------------------------------|----------------------|-----------------|
| | Non-CAM (n = 266) | CAM (n = 16) |
| Myositis-specific antibodies | | |
| Jo-1 | 58 (21.8) | 0 |
| PL-7 | 1 (0.4) | 0 |
| PL-12 | 1 (0.4) | 0 |
| EJ | 1 (0.4) | 0 |
| OJ | 3 (1.1) | 0 |
| KS | 1 (0.4) | 1 (6.2) |
| Mi-2 | 16 (6.0) | 2 (12.5) |
| SRP | 7 (2.6) | 0 |
| 155/140 | 11 (4.1) | 8 (50.0) |
| Myositis-associated antibodies | | |
| U1-RNP | 32 (12.0) | 2 (12.5) |
| U3-RNP | 4 (1.5) | 0 |
| Ku | 5 (1.9) | 0 |
| PM-Scl | 29 (10.9) | 0 |
| None of the above autoantibodies | 106 (39.8) | 5 (31.2) |

Cancer-Associated Myositis and Anti-p155 Autoantibody in a Series of 85 Patients With Idiopathic Inflammatory Myopathy

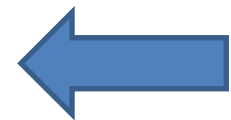
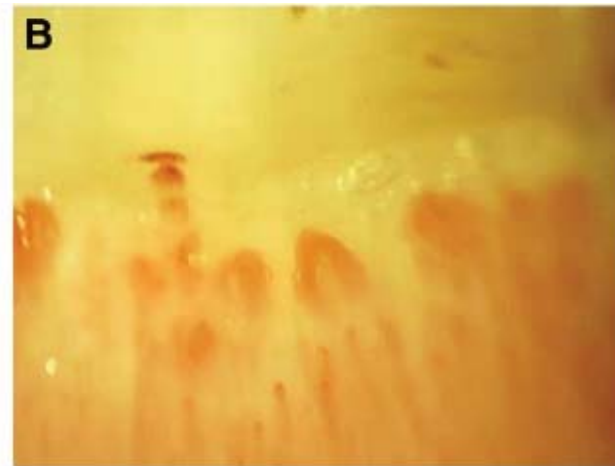
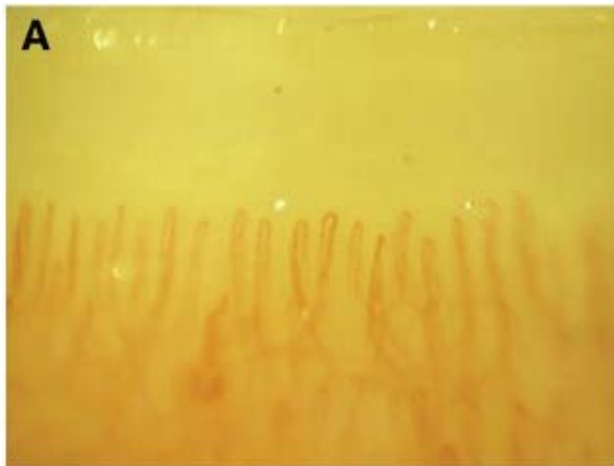
Ernesto Trallero-Araguás, MD, Moisés Labrador-Horrillo, MD, PhD, Albert Selva-O'Callaghan, MD, PhD, Maria Angeles Martínez, PhD, Xavier Martínez-Gómez, MD, Eduard Palou, MD, PhD, Jose Luis Rodriguez-Sanchez, MD, PhD, and Miquel Vilardell-Tarrés, MD, PhD

| First Author (Ref.) | Autoantibody (Ab) | N | CAM (Ab)* | No CAM (Ab)† | NPV (%) | PPV (%) |
|---------------------------------|--------------------------------|-----|-----------|--------------|-------------|---------|
| Targoff et al ²⁴ | Anti-p155 and/or Anti-p155/140 | 45 | 6 (6) | 39 (8) | 100 | 42.9 |
| Kaji et al ¹⁵ | Anti-p155/140 | 52 | 10 (5) | 42 (2) | 88.9 | 71.4 |
| Chinoy et al ⁸ | Anti-p155/140 | 103 | 15 (8) | 88 (11) | 91.6 | 42.1 |
| Gunawardena et al ¹² | Anti-p155/140 | 20 | 3 (3) | 17 (3) | 100 | 50 |
| Trallero-Araguás (PR) | Anti-p155 and/or Anti-p155/140 | 65 | 14 (10) | 51 (5) | 92 | 66.7 |

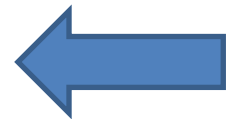
| | Positive Predictive Value (%) | Negative Predictive Value (%) |
|--------------------|-------------------------------|-------------------------------|
| MSA/MAA-negative | 31 | 86.1 |
| Anti-p155-positive | 66.7 | 92 |
| Combined strategy* | 34.5 | 91 |

Nailfold Capillary Microscopy in Adults with Inflammatory Myopathy

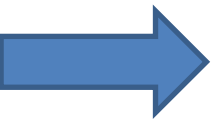
Albert Selva-O'Callaghan, MD, PhD,* Vicente Fonollosa-Pla, MD, PhD,*
Ernesto Trallero-Araguás, MD,* Xavier Martínez-Gómez, MD,†
Carmen Pilar Simeon-Aznar, MD, PhD,*
Moisés Labrador-Horrillo, MD, PhD,* and
Miquel Vilardell-Tarrés, MD, PhD*



DM



PSS



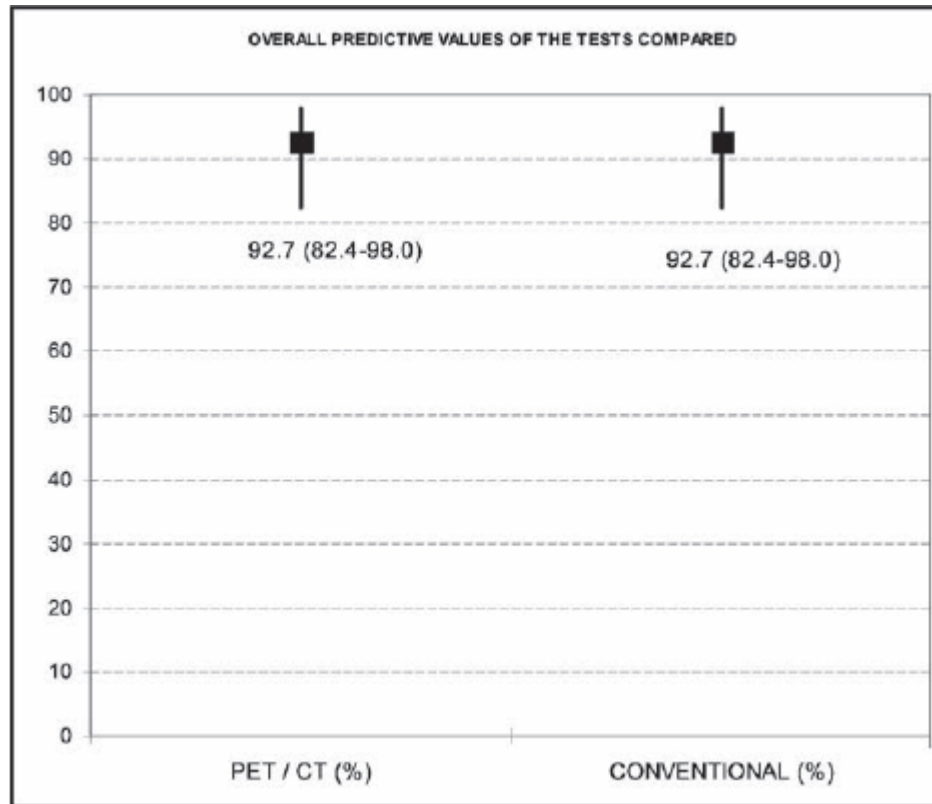
Normal



DM/Cancer

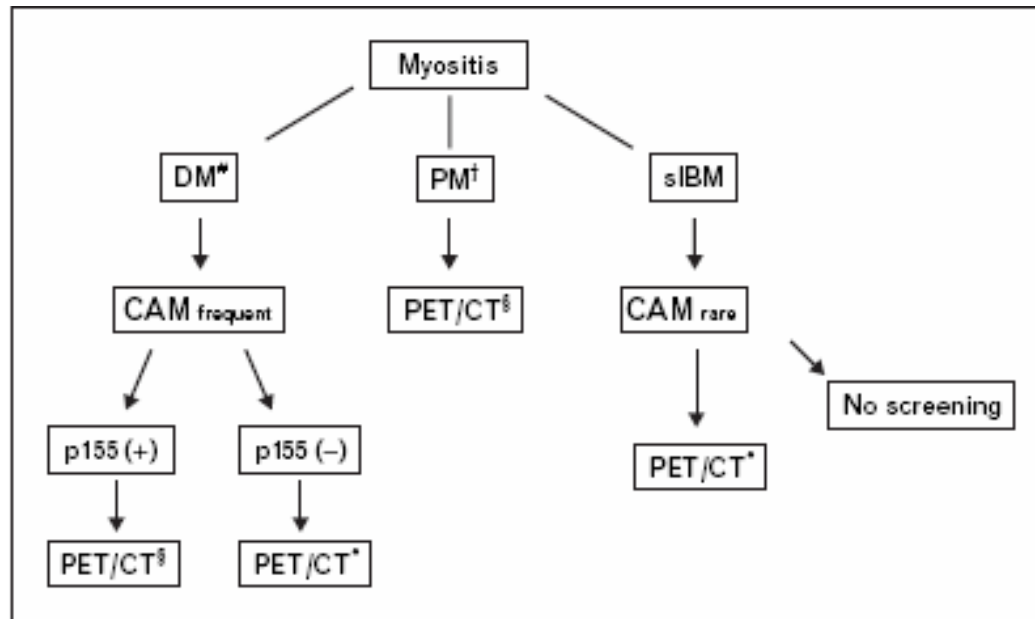
Conventional Cancer Screening versus PET/CT in Dermatomyositis/Polymyositis

Albert Selva-O'Callaghan, MD, PhD,^{a*} Josep M. Grau, MD, PhD,^{b*} Cristina Gámez-Cenzano, MD, PhD,^c Antonio Vidaller-Palacín, MD, PhD,^d Xavier Martínez-Gómez, MD,^e Ernesto Trallero-Araguás, MD,^a Eduard Andía-Navarro, MD,^c Miquel Vilardell-Tarrés, MD, PhD^a



Malignancy and myositis: novel autoantibodies and new insights

Albert Selva-O'Callaghan^a, Ernesto Trallero-Araguás^a, Josep M. Grau-Junyent^{b,c}
and Moisés Labrador-Horrillo^d



(*) PET/TC al diagnóstico

(&) PET/TC anual 3-5 años

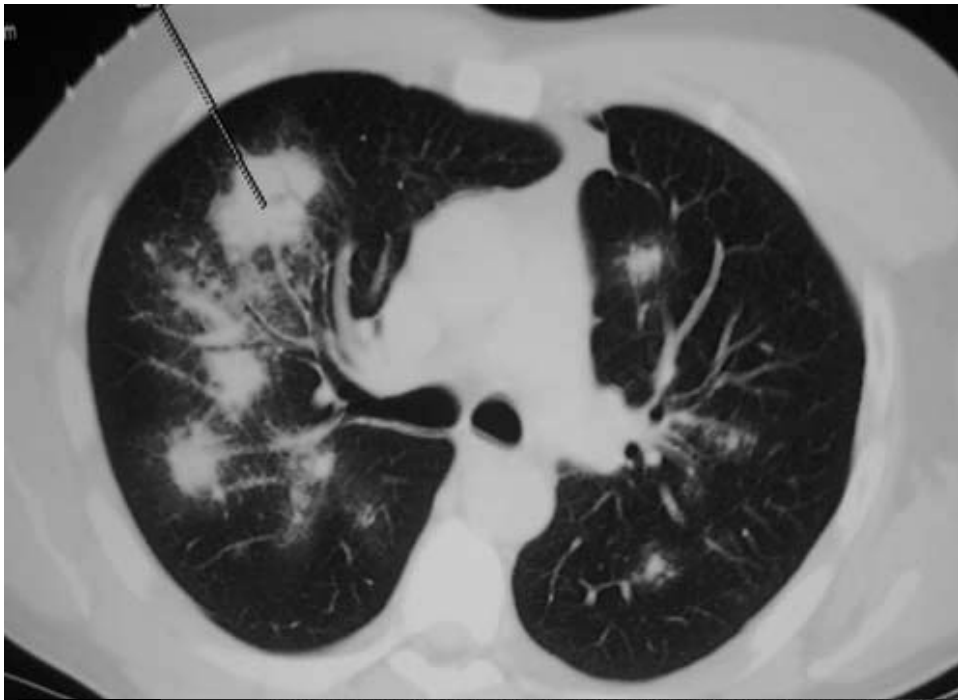
DM/PM y cáncer

- **Anamnesis**
- **Exploración general completa**
- **Hematimetría y VSG**
- **Bioquímica general**
- **Sedimento de orina**
- **Sangre oculta en heces y citología de orina**
- **Rx tórax**
- **TC tórax-abdomen-pelvis**
- **Mamografía**
- **Examen ginecológico que incluya eco pélvico**
- **Lo recomendado para la población general según sexo, edad y grupo étnico**

Vasculitis y cáncer



Sabinar de la Dehesa (El Hierro)



Name: BLANCO RAPOSO ALBERTO
D: BLRP600701916011
DOB: 01/07/1960
AcqDt: 24/09/2010
AcqTm: 09:52:25
rtnNo: 33
SL: -215.000
StID: 123478-2010

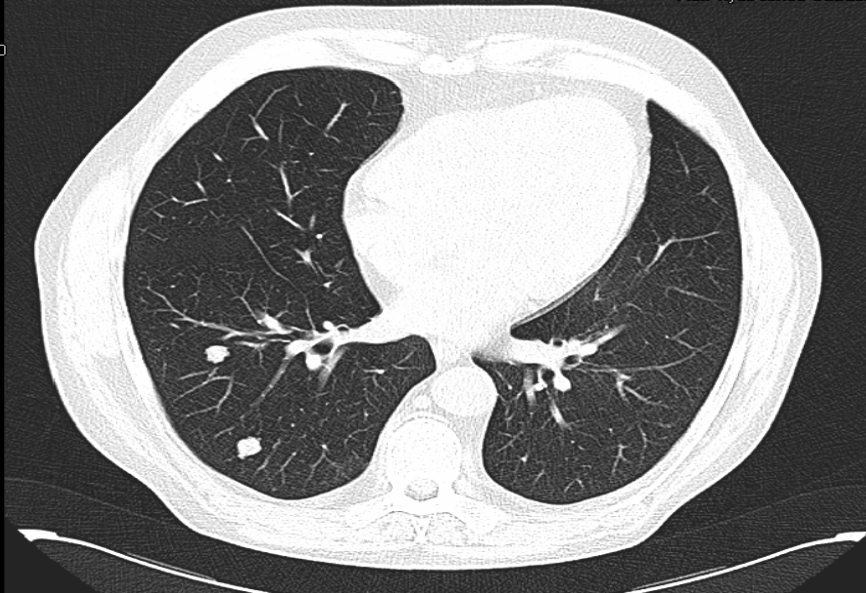
A

Instit: HPH
Model: Sensation 64
PatPos: HFS
Type: ORIGINAL/PRIMARY/AXIAL/CT_SOM5...
RefPhys: Alonso Sebastian Isabel

k 1.365

R

mAs: 63
kV: 120.000
ST: 5.000
AcqNo: 2



W 1200
C -600

Vasculitis-ANCA y cáncer

| Variable | Hoffman | Knigh | Westman | Faurschou | EUVAS |
|--------------|----------|---------------|----------------|--------------|---------------|
| Periodo | 1967-90 | 1969-94 | 1971-93 | 1973-99 | 1995-07 |
| Area | USA | Suecia | Suecia | Dinamarca | Europa |
| Nº pacientes | 158 | 1065 | 123 | 293 | 535 |
| Enfermedad | GPA | GPA | GPA,MPA | GPA | GPA,MPA (*) |
| Total | 2,4 (NR) | 2,0 (1,7-2,5) | 1,6(0,9-2,7) | 2,1(1,5-2,7) | 1,6(1,2-2,1) |
| Vejiga | 33(NR) | 4,8(2,6-8,1) | 4,8(1-13,9) | 3,6(1,2-8,3) | 2,4(0,7-6,2) |
| Ca piel(NM) | NR | 7,3(4,4-12) | 10,4(3,4-24,3) | 4,7(2,8-7,3) | 2,8(1,6-4,6) |
| Linfoma | 11(NR) | 4,2(1,8-8,3) | 3,7(0,1-20,5) | 0 casos | 1,1(0,03-6,2) |
| Leucemia | NR | 5,7(2,3-12) | 0 casos | 5,9(1,2-17) | 3,2(0,4-11,7) |

(*) SIR total cáncer GPA 1,92(1,31-2,71)
SIR total cáncer MPA 1,20(0,71-2,79)

Vasculitis-ANCA y cáncer de vejiga

| Autor | Talar-Williams(96) | Knigh(02) | Faurschou(08) | FVSG(11) |
|-----------------|--------------------|-----------|---------------|---------------------|
| Enfermedad | GPA | GPA | GPA | VN |
| Nº pacientes | 145 | 1065 | 293 | 805 |
| Nº Ca vejiga | 7 | 11 | 5 | 7 |
| Latencia (a) | 0,6-15 | 4-15 | 7-18 | 2,9-18 |
| CF vía | VO | VO | VO | VO+/-IV(5) IV(2) |
| CF dosis(gr) | 19-251 | 0-325 | >36 | 8-213 |
| CF duración(a) | 0,6-5,1 | 7,2 | >1 | 0,5-3,5 |

Dosis prohibida (gr)

100

25

36

?

Aumentan riesgo: Dosis, vo, microhematuria no glomerular, cistitis hemorrágica previa, , fumador

Vasculitides Associated With Malignancies: Analysis of Sixty Patients

OLIVIER FAIN,¹ MOHAMED HAMIDOU,² PATRICE CACOUB,³ BERTRAND GODEAU,⁴ BERTRAND WECHSLER,³ JACQUES PARIES,¹ JÉRÔME STIRNEMANN,¹ ANNE-SOPHIE MORIN,¹ MARC GATFOSSE,⁵ THOMAS HANSLIK,⁶ NADIA BELMATOUG,⁷ OLIVIER BLÉTRY,⁸ RAMIRO CEVALLOS,⁹ ISABELLE DELEVAUX,¹⁰ EVELYNE FISHER,¹¹ GILLES HAYEM,¹² GÉRARD KAPLAN,¹⁰ CLAIRE LE HELLO,¹³ LUC MOUTHON,¹⁴ CLAIRE LARROCHE,¹⁵ VÉRA LEMAIRE,¹⁶ ANNE-MARIE PIETTE,⁸ JEAN-CHARLES PIETTE,³ THIERRY PONGE,² XAVIER PUECHAL,¹⁷ JÉRÔME ROSSERT,¹¹ FRANÇOISE SARROT-REYNAULD,¹⁸ DIDIER SICARD,¹⁴ JEAN-MARC ZIZA,¹⁹ MARCEL-FRANCIS KAHN,¹² AND LOÏC GUILLEVIN¹⁴

| Tumor | Nº | PAN(22) | LV(27) | WG(4) | MPA(3) | HSP(3) |
|----------|----|---------|--------|-------|--------|--------|
| SMD | 21 | 9 | 9 | 1 | 1 | 0 |
| Linfomas | 19 | 6 | 9 | 1 | 2 | 0 |
| Sólidos | 24 | 7 | 9 | 2 | 1 | 3 |

Hematológicos 63%
Sólidos 37%

| Comienzo de la vasculitis | 60 |
|---------------------------|----|
| Antes del tumor | 14 |
| Simultaneo al tumor | 24 |
| Después del tumor | 22 |

LV 45%
PAN 38%

Vasculitis y cáncer



Paraneoplastic Vasculitis in Patients with Solid Tumors: Report of 15 Cases

ROSER SOLANS-LAQUÉ, JOSEP ANGEL BOSCH-GIL, CARMEN PÉREZ-BOCANEGRA,
ALBERT SELVA-O'CALLAGHAN, CARMEN P. SIMEÓN-AZNAR, and MIQUEL VILARDELL-TARRES

| | |
|----------------------------------|------------|
| Nº PACIENTES (literatura) | 144 |
| EDAD MEDIA | 75 AÑOS |
| PREVALENCIA ESTIMADA | 2-5% |

| Tipo de tumor | Número |
|----------------------|---------------|
| Pulmón | 32 |
| Renal | 20 |
| Colon | 18 |
| Mama | 11 |
| Otros | 63 |

| Tipo de vasculitis | Número |
|----------------------------|---------------|
| Leucocitoclástica | 43 |
| Schonlein-Henoch | 24 |
| PAN | 22 |
| PAM | 9 |
| Wegener | 19 |
| Chrug-Strauss | 1 |
| Arteritis células gigantes | 30 |

Concurrent Temporal (Giant Cell) Arteritis and Malignancy: Report of 20 Patients with Review of the Literature

IOZON, VÉRONIQUE LOUSTAUD, ANNE-LAURE FAUCHAIS, PASCALE SORIA, KIM LY, QUATTARA, KAÏEF RHAÏEM, SYLVIE NADALON, and ELISABETH VIDAL

ERIC L
DAVIS
The Journal of Rheumatology 2006; 33:8

No Increased Frequency of Malignant Neoplasms in Polymyalgia Rheumatica and Temporal Arteritis. A Prospective Longitudinal Study of 398 Cases and Matched Population Controls

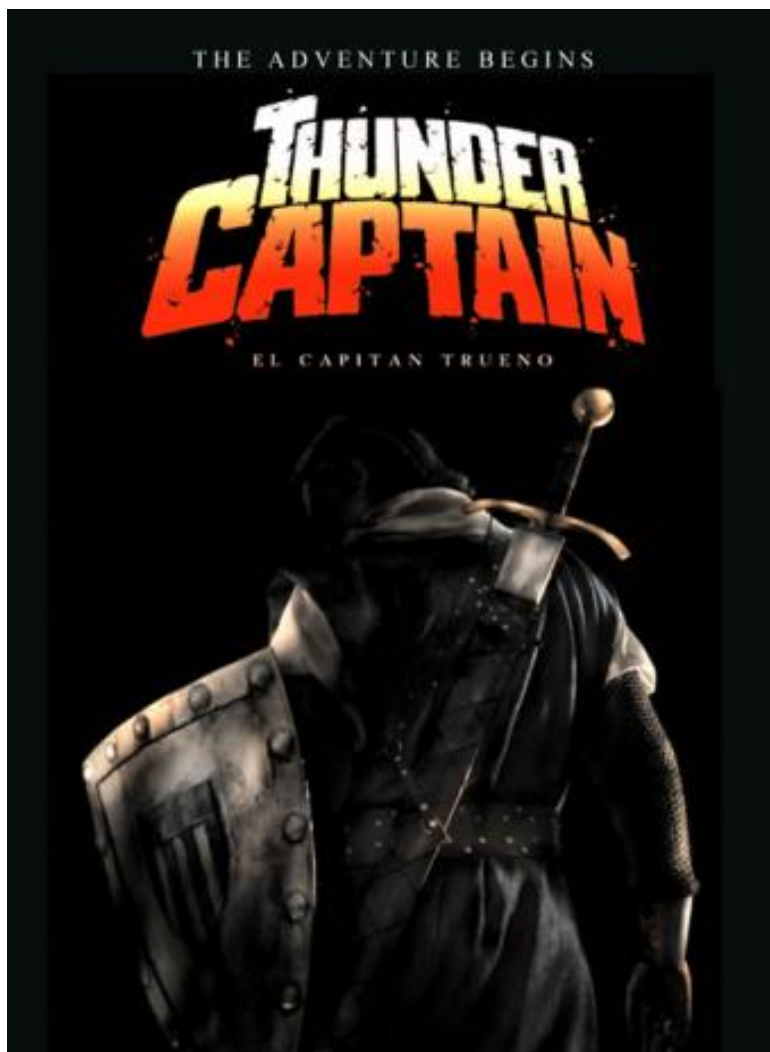
GEIRMUND MYKLEBUST, TOM WILSGAARD, BJARNE KOSTER JACOBSEN, and JAN TORE GRAN

(*J Rheumatol* 2002;29:2143–7)

Malignancy Risk in Patients With Giant Cell Arteritis: A Population-Based Cohort Study

TANAZ A. KERMANI, VALENTIN S. SCHÄFER, CYNTHIA S. CROWSON, GENE G. HUNDER, SHERINE E. GABRIEL, STEVEN R. YTTTERBERG, ERIC L. MATTESON, and KENNETH J. WARRINGTON

Arthritis Care & Research
Vol. 62, No. 2, February 2010, pp 149–154



Guionista: Victor Mora

Dibujante: Miguel Ambrosio (Ambrós)

Fecha de aparición : 14 de mayo 1956.



Mensajes para llevarse a casa

- Dedicar el tiempo que queráis o podáis a la enfermedad autoinmune del paciente
- Disponer de 5 minutos para hablar de riesgo vascular
- Intentar otros 5 para pensar en cáncer
- Si al final os parece que no sois felices hacéoslo mirar : tenéis un problema