

Caso Clínico

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Categories of synovial fluid based upon clinical and laboratory findings

Measure	Normal	Noninflammatory	Inflammatory	Septic	Hemorrhagic
Volume, mL (knee)	<3.5	Often >3.5	Often >3.5	Often >3.5	Usually >3.5
Clarity	Transparent	Transparent	Translucent-opaque	Opaque	Bloody
Color	Clear	Yellow	Yellow	Yellow	Red
Viscosity	High	High	Low	Variable	Variable
White blood cell, per microL	<200	0 to 2000	>2000*	>20,000†	Variable
Polymorphonuclear leukocytes, percent	<25	<25	≥50	≥75	50 to 75
Culture	Negative	Negative	Negative	Often positive	Negative

* Inflammatory arthritis may include septic arthritis.

† Septic arthritis is typically associated with synovial fluid white blood cell counts >20,000 cells/microL, but lower counts may be observed, especially for arthritis due to disseminated gonococcal infection. With most bacterial organisms, particularly *Staphylococcus aureus*, the synovial fluid white blood cell count is typically >50,000 cells/microL (and often >100,000 cells/microL).

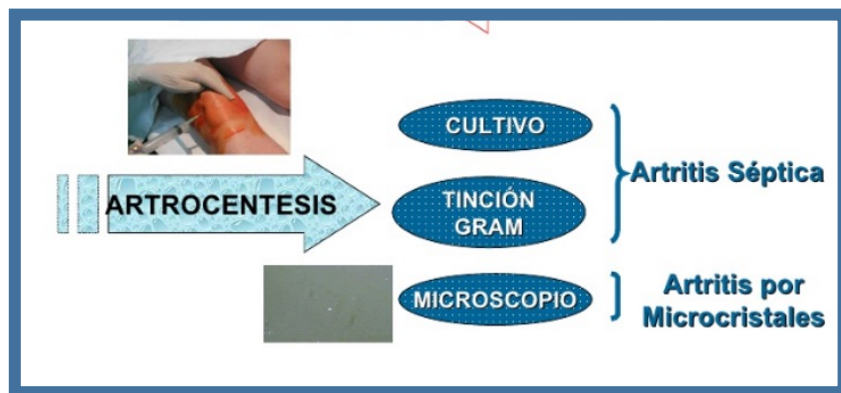
Examples of inflammatory versus noninflammatory arthritis

Noninflammatory: <2000 WBC per mm ³ (2×10^9 per L)	Inflammatory: >2000 WBC per mm ³
Osteoarthritis	Septic arthritis*
Trauma	Crystal-induced monoarthritis (eg, gout, pseudogout)
Avascular necrosis	Rheumatoid arthritis and juvenile idiopathic arthritis
Charcot's arthropathy	Spondyloarthritis
Hemochromatosis	Systemic lupus erythematosus
Pigmented villonodular synovitis	Lyme disease

WBC: white blood cell.

* Synovial fluid analysis in patients with septic arthritis often shows more than 90% polymorphonuclear neutrophilic leukocytes.

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LIQUIDO SINOVIAL

LEUCOCITOS	*	46500	/mm3	[0 - 200]
HEMATIES	*	<10000	/mm3	[0 - 200]
TIPO DE CELULAS				
87% Polinucleados				
13% Mononucleados				
GLUCOSA	*	51	mg/dL	[70 - 120]
PROTEINAS	*	4.7	g/dL	[1 - 3]
CRISTALES	No se observan			

10/11/2020

LIQUIDO SINOVIAL

LEUCOCITOS	*	18100	/mm3	[0 - 200]
Presencia de coagulo en la muestra que podría interferir (disminuyendo) el recuento total de células.				
HEMATIES	*	<10000	/mm3	[0 - 200]
TIPO DE CELULAS				
90% Polinucleados				
10% Mononucleados				
GLUCOSA		79	mg/dL	[70 - 120]
PROTEINAS	*	5.2	g/dL	[1 - 3]
CRISTALES				
No se observan cristales en la muestra recibida				

14/11/2020

ORINA

SISTEMATICO ORINA

DENSIDAD	1020	[1005 - 10:
LEUCOCITOS	NEGATIVO	[N]
NITRITOS	NEGATIVO	[N]
pH	5	Unidad pH [5 - 7]
PROTEINAS	* 25	mg/dL [N]
GLUCOSA	NEGATIVO	[N]

Pág. 1 de 2

CUERPOS CETONICOS	NEGATIVO	[N]
BILIRRUBINA	NEGATIVO	[N]
UROBILINOGENO	NEGATIVO	[N]
ERITROCITOS	NEGATIVO	[N]
SEDIMENTO (Microscopio)	NORMAL	

Drogas de Abuso

Estas determinaciones requieren consentimiento de familia/paciente son cualitativas (Cutt-Off reflejado en la casilla de valores de referencia) pueden existir falsos positivos y su positividad no implica un diagnostico de abuso de drogas.

BARBITURICOS	NEGATIVO	0.00 - 300.0 ng/ml
ANFETAMINAS	NEGATIVO	0.00 - 1000.0 ng/ml
OPIACEOS	* POSITIVO~	0.00 - 300.0 ng/ml
METADONA	NEGATIVO	0.00 - 300.0 ng/ml
CANNABINOIDES	* POSITIVO~	0.00 - 50.0 ng/ml
METANFETAMINA	NEGATIVO	0.00 - 1000.0 ng/ml
EXTASIS	NEGATIVO	0.00 - 500.0 ng/ml
BENZODIACEPINAS	* POSITIVO~	0.00 - 300.0 ng/ml
ANTIDEPRESIVOS TRICICLICOS	NEGATIVO	0.00 - 1000.0 ng/ml
COCAINA	* POSITIVO~	0.00 - 300.0 ng/ml

Differential diagnosis of acute monoarthritis

Infection	Tumor
Bacterial	Tenosynovial giant cell tumor (formerly pigmented villonodular synovitis)
Fungal	Chondrosarcoma
Mycobacterial	Osteoid osteoma
Viral	Metastatic disease
Spirochete	
Crystal induced	Systemic rheumatic disease
Monosodium urate	Rheumatoid arthritis
Calcium pyrophosphate dihydrate	Spondyloarthritis
Hydroxyapatite	Systemic lupus erythematosus
Calcium oxalate	Sarcoidosis
Lipid	Osteoarthritis
Hemarthrosis	Erosive variant
Trauma	Intraarticular derangement
Anticoagulation	Meniscal tear
Clotting disorders	Osteonecrosis
Fracture	Fracture
Pigmented villonodular synovitis	Other
	Plant thorn synovitis

HEMOGRAMA: 10.900 leucocitos 74N Hb 13, VCM 97, 506000 plaquetas TP 72% INR 1.23

BIOQUIMICA: Glucosa 92, urea 17, Acido urico 5.1 creatinina 0.71, FG 123, AST 11, ALT 16, GGT 74, ALP 98, CT 104, TG 78 Calcio 9.5, P 4.18, BT 0.78, Albumina 3.89, cloro 100, Na 140, K 4.3, **PCR 170.**

HLA-B27 Pendiente al alta

FR 11

Autoinmunidad pendiente al alta

CD4 y carga viral pendiente al alta

MICROBIOLOGIA

Tipo de Muestra: **LIQUIDO ARTICULAR-SINOVIAL**

10/11/2020

ESTUDIO AEROBIOS

CULTIVO AEROBIOS (exudados)

-
Negativo

Cultivo en medio de ENRIQUECIMIENTO

Negativo tras LARGA incubación

ESTUDIO ANAEROBIOS

CULTIVO ANAEROBIOS (exudados)

-
Negativo

Tipo de Muestra: **SANGRE**

HEMOCULTIVOS / LCR /Líquidos

CULTIVO Sangre/Líquidos

-
Negativo

Tipo de Muestra: **LIQUIDO ARTICULAR-SINOVIAL**

HEMOCULTIVOS / LCR /Líquidos

CULTIVO Sangre/Líquidos

-
Negativo
Una muestra aeróbica
Una muestra anaeróbica
INST_NEGATIVE
INST_NEGATIVE

Botella AEROBIA

Botella ANAEROBIA

14/11/2020

PCR VIRUS RESPIRATORIOS

SARS-CoV-2

-
Negativo

Tipo de Muestra **SUERO**

MARCADORES HEPATITIS B

VHB HBs Ag

VHB anti HBs

VHB anti HBc

MARCADORES HEPATITIS C

VHC Ac

SEROLOGIA HERPESVIRUS

VHS IgG

VHS IgM

AGLUTINACIONES SALMONELLA

Ac. Salmonella typhi O

Ac. Salmonella typhi H

SEROLOGIA LUES

LUES TOTAL

Nota:

CR REFERENCE LAB.

Campylobacter jejuni IgG

Yersinia enterocolitica

-
No procede determinación
> 1000.00
No procede determinación
-
Negativo
-
No procede determinación. Resultado previo positivo
Negativo
-
Negativo
Negativo
-
Negativo
Neisseria gonorrhoeae Anticuerpos (FC):
No se detectan
-
1.28 Positivo
0.28 Negativo

ARTRITIS REACTIVA. INFECCION POR
CLAMYDIA TRACHOMATIS

DOXICICLINA 100 MG:
1 COMPRIMIDO CDA 12 HORAS 7
DÍAS

TRATAMIENTO A SU PAREJA

Tipo de Muestra **EXUDADO URETRAL**

PCR INFECCION TRASMISSION SEXUAL

PCR Chlamydia trachomatis

PCR Neisseria gonorrhoeae

-
POS.
NEG.

AUTOINMUNIDAD

ANTIC ANTINUCLEARES NEGATIVO

ANTIC CITOPLASMA NEUTROFILO NEGATIVO

ANTIC DNA NATIVO NEGATIVO

AUTOINMUNIDAD

screening ENAS NEGATIVO

Esta prueba incluye Ro,La,Sm,RNP,CENTROMERO, Scl-70,Jo-1

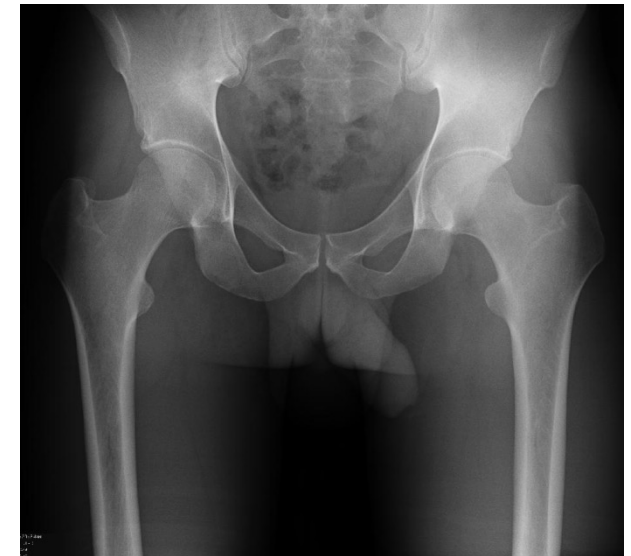
HISTOCOMPATIBILIDAD

HLA-B 27 POSITIVO~



CD4 497 y carga viral indetectable

SEGUIMIENTO POR REUMATOLOGIA



ARTRITIS REACTIVA. INFECCION POR CLAMYDIA TRACHOMATIS

Overview of features included in the different classification criteria sets for AS and SpA

Features of criteria	Modified New York criteria	Amor criteria	ESSG criteria	ASAS axial SpA criteria	ASAS peripheral SpA criteria
Year of publication	1984	1990	1991	2009	2011
Inclusion or entry criteria	Sacroiliitis on radiograph* plus ≥1 clinical criterion	None, fulfillment of criteria requires a score of ≥6 points, assigned on the basis of clinical features that are considered from the list below; weightings for each feature are shown in parentheses	Either IBP or synovitis (asymmetric or predominantly of the lower limbs), plus at least one other SpA feature	≥3 months' back pain before age 45 years and either sacroiliitis on imaging (radiographs or MRI) plus ≥1 other SpA feature (imaging arm) or HLA-B27-positive plus ≥2 other SpA features (clinical arm)	Arthritis, enthesitis or dactylitis plus ≥1 SpA feature marked with ^a or ≥2 other SpA features marked with ^b
SpA features to be considered					
IBP [¶]	✓	X	X	✓	✓ (ever) ^b
Alternating buttock pain	X	✓ or gluteal pain (1 point)	✓	X	X
Pain at night or morning stiffness	X	✓ (1 point)	X	X	X
Arthritis	X	✓ asymmetrical oligoarthritis (2 points)	X	✓	✓ ^b
Dactylitis	X	✓ (2 points)	X	✓	✓ ^b
Enthesitis (heel)	X	✓ (2 points)	✓	✓	✓ ^b
Good response to NSAIDs	X	✓ (2 points)	X	✓	X
Psoriasis	X	✓ (2 points) ^Δ	✓	✓	✓ ^a
Inflammatory bowel disease	X	✓ (2 points) ^Δ	✓	✓	✓ ^a
Balanitis	X	✓ (2 points) ^Δ	X	X	X
Uveitis	X	✓ (2 points)	X	✓	✓ ^a
Diarrhea <1 month before onset arthritis	X	✓ (1 point)	✓ [◊]	X	X
Urethritis/cervicitis <1 month before onset arthritis	X	✓ (1 point)	✓ [◊]	X	X
Preceding infection	X	X	X	X	✓ ^a
Positive family history for SpA [§]	X	✓ (2 points) [§]	✓	✓	✓ ^b
HLA-B27	X	✓ (2 points) [§]	X	✓	✓ ^a
Elevated CRP	X	X	X	✓	X
Sacroiliitis	Not applicable (see: 'Inclusion or entry criteria' above)	✓ (radiographic*; 3 points)	✓ (radiographic*)	Not applicable (see: 'Inclusion or entry criteria' above)	✓ ^a (radiographic* or MRI-detected)
Limitation in mobility of lumbar spine	✓	X	X	X	X
Limitation in chest expansion	✓	X	X	X	X

AS: ankylosing spondylitis; SpA: spondyloarthritis; ESSG: European Spondyloarthropathy Study Group; ASAS: Assessment of SpondyloArthritis International Society; IBP: inflammatory back pain; MRI: magnetic resonance imaging; HLA-B27: human leukocyte antigen-B27; NSAIDs: nonsteroidal antiinflammatory drugs; CRP: C-reactive protein.

* Radiographic sacroiliitis is considered present when at least grade 2 bilaterally or grade 3 to 4 unilaterally.

¶ Different definitions for IBP exist for the different criteria sets.

Δ Presence of psoriasis, balanitis, or inflammatory bowel disease is considered as one item, and 2 points are given in total if at least one is present.

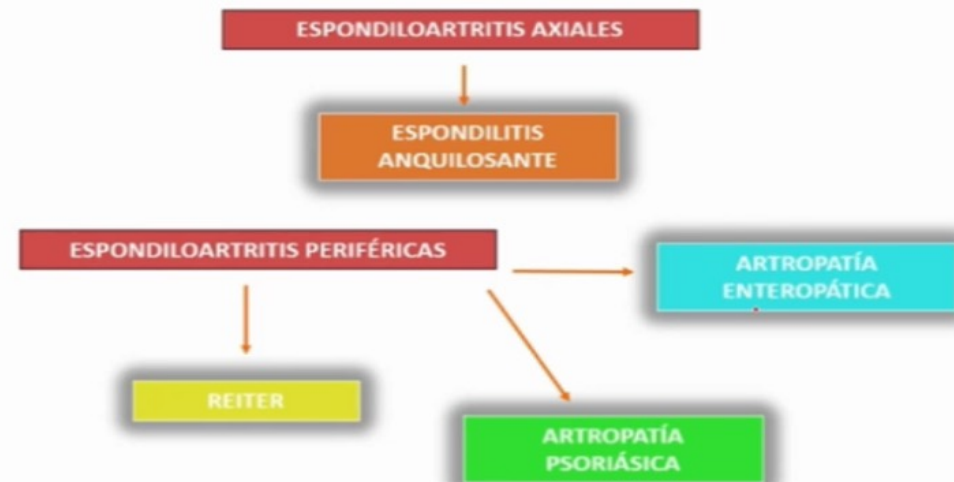
◊ Presence of either urethritis/cervicitis or acute diarrhea within one month before onset of arthritis is sufficient to fulfill this SpA feature in the ESSG criteria.

§ Different definitions for a positive family history exist for the different criteria sets.

¥ Presence of either HLA-B27 positivity or a positive family history is sufficient to obtain the score of 2 points.

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La artritis reactiva (ARe) es una **sinovitis estéril**;



El síndrome de Reiter (término en desuso) definido por la tríada **uretritis, artritis y conjuntivitis**, representa sólo una parte del espectro de la ARe, y por tanto, es más correcto utilizar esta última denominación

“Inflamación **aséptica, mono o poliarticular**, que aparece tras un **proceso infeccioso** tras un periodo de latencia variable.”

EPIDEMIOLOGIA

- Poliartritis inflamatoria
- Disentérica/Venérea
- Adultos jóvenes (20-40años)
- Hombres (Venérea)
- Raza blanca
- HLA-B27 presente en 60-85% de casos

ARe **de origen entérico**: Los principales gérmenes responsables son *Shigella flexneri*, *Salmonella*, *Yersinia*, *Campylobacter* y *Clostridium difficile*.

ARe **de origen genitourinario**. El principal agente desencadenante suele ser *Chlamydia trachomatis* y, con menor frecuencia, *Ureaplasma urealyticum*. Más frecuentes en **varones** (quizá porque es más fácil de diagnosticar la uretritis que la cervicitis).

Otros gérmenes implicados son *Escherichia coli*, *Mycoplasma genitalium* o *Bacillus Calmette-Guerin*.

CLINICA

Asymmetrical arthritis of the knees



Asymmetrical swelling due to reactive arthritis is apparent in this photograph. The patellar tendons are effaced and there is noticeable fullness of the left knee.
Courtesy of RJP de Heer

Reactive arthritis of knee

Sausage digit (left 2nd toe)



Swelling the swelling of the left second toe is apparent in the photograph of a patient with reactive arthritis.
Courtesy of Henning Jørgen

Sausage digit second toe

Conjunctivitis and anterior uveitis in reactive arthritis



Conjunctival injection and anterior uveitis (iritis) with hypopyon are noted in the photograph of the eye of a patient with reactive arthritis (formerly Reiter's Syndrome).
Courtesy of RJP de Heer

Conjunctivitis and uveitis

Oral lesions in reactive arthritis



Only plaques are present on the tongue.
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Reactive arthritis - oral lesions

Palatal erosion in reactive arthritis



A sharply demarcated erosion of the hard palate is shown. This is among the more common of the oral manifestations of reactive arthritis.
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Palatal erosion in reactive arthritis

Keratoderma blennorrhagicum



This close-up photograph shows the erythematous, scaly plaques of keratoderma blennorrhagicum in a patient with reactive arthritis (formerly Reiter's Syndrome).
Courtesy of RJP de Heer

Erythema nodosum



Painful erythematous nodules of erythema nodosum are often found in a symmetric distribution on the legs. The nodules can also appear to be pigmented.
Courtesy of Lee F. Hecht, Jr. The Skin and Infection: A Color Atlas and Text, Sanders CV, Hecht L.F. Jr (2002), Williams & Wilkins, Baltimore, 1995.

<http://www.elsevier.com>

Sausage digit second toe

Nail changes in reactive arthritis



Subungual hyperkeratosis, onycholysis, and periungual erythematous scaly plaques are present on the hands of the patient with reactive arthritis.
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Conjunctivitis and uveitis

Nail changes in reactive arthritis



Separation of the distal portion of the nails (onycholysis), accumulation of subungual keratinous debris, and periungual scale and erythema can occur in both reactive arthritis and psoriasis. Arthritis is present in addition to the dystrophic nail changes.
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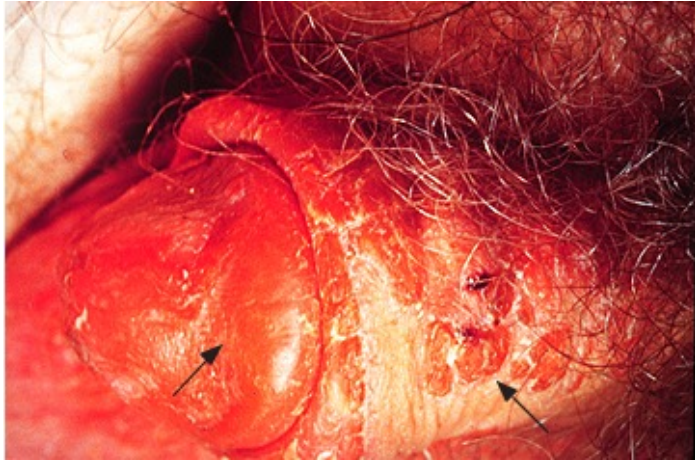
Reactive arthritis - oral lesions

Circinate balanitis



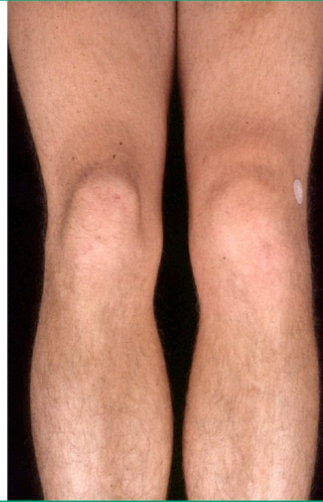
Circinate balanitis characterized by shallow ulcers on the glans penis and the shaft of the penis (arrows). The lesions are generally asymptomatic.
Courtesy of Professor Victor Newman, UCLA.

Palatal erosion in reactive arthritis



Circinate balanitis

Asymmetrical arthritis of the knees



Asymmetrical swelling due to reactive arthritis is apparent in this photograph. The patellar borders are effaced and there is suprapatellar fullness of the left knee.



DIAGNÓSTICO

- Las **serologías** (infección pasada).
- Muestras de **heces y exudados uretrales o vaginales**.
- En más de la mitad de los casos **no se consigue determinar el germen causante**.
- El análisis del líquido sinovial muestra características inflamatorias inespecíficas.
- Las alteraciones radiológicas no suelen aparecer en las fases iniciales de la enfermedad, sino en las formas evolucionadas (erosiones y disminución del espacio articular en las articulaciones)

TRATAMIENTO

Manifestaciones articulares : **AINE** (tratamiento inicial), infiltraciones de **corticoides**, (entesitis). **Fisioterapia**.

-En las formas refractarias, afectación crónica o en casos de enfermedad erosiva: **FAME (SSZ o MTX.)**

-En casos graves y refractarios, sacroileítis/espondilitis crónicas, la alternativa de tratamiento son las terapias **biológicas anti-TNF**.

El **uso de antibióticos** frente a la infección desencadenante no ha sido contrastado como útil para el tratamiento de la enfermedad.

-En casos de **infecciones entéricas**, el tratamiento antibiótico en fase aguda no reduce el riesgo de ARe, por lo que la indicación o no de tratamiento, vendrá determinada por el germen causal y las comorbilidades del paciente.

- En casos de **infección genitourinaria** aguda por *Chlamydia* se recomienda el tratamiento antibiótico de la misma (el tratamiento precoz de la infección por *Chlamydia* podría reducir el riesgo de ARe).

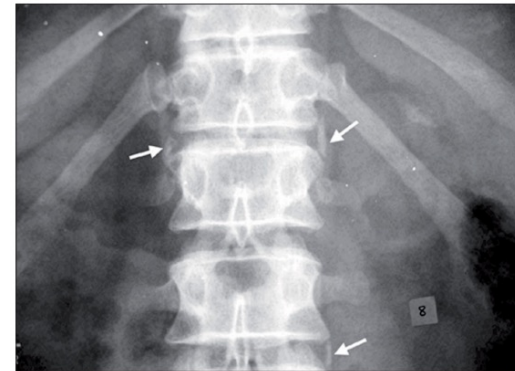
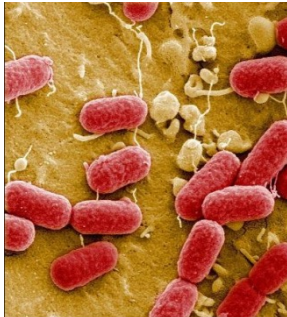


Figura 4. Osificaciones paravertebrales en D12-L1 y L2-L3. Nótese su aspecto distinto a los sindesmositos de la espondilitis anquilosante. Estas calcificaciones suelen aparecer en las tres últimas vértebras dorsales y en las tres primeras lumbares. Cortesía del Fondo de Imagen de la SER. (Autor: Dr. E. de Miguel. Hospital La Paz, Madrid)

Evolución

- El pronóstico de la artritis reactiva varía según el **germen desencadenante** y la **predisposición genética** del individuo
- 50% de los pacientes presentarán un cuadro que se limitará en menos de 6 meses, y la mayoría se resolverá en un periodo de menos 12 meses.
- 15-20% de los casos, el cuadro podrá cronificarse, con un incremento en la frecuencia de la sintomatología axial (llegando a cumplir en algunos casos criterios de espondilitis anquilosante).
- **HLA-B27+** es el principal factor predisponente a cronicidad o recurrencias.
- Probablemente, los casos desencadenados por infección por *Yersinia* tengan *menos tendencia* a la cronicidad que los provocados por *Shigella*.

DD: artritis postinfecciosas

- enfermedad de Lyme
- fiebre reumática
- artritis virales

No comparten características clínicas de las espondiloartritis.