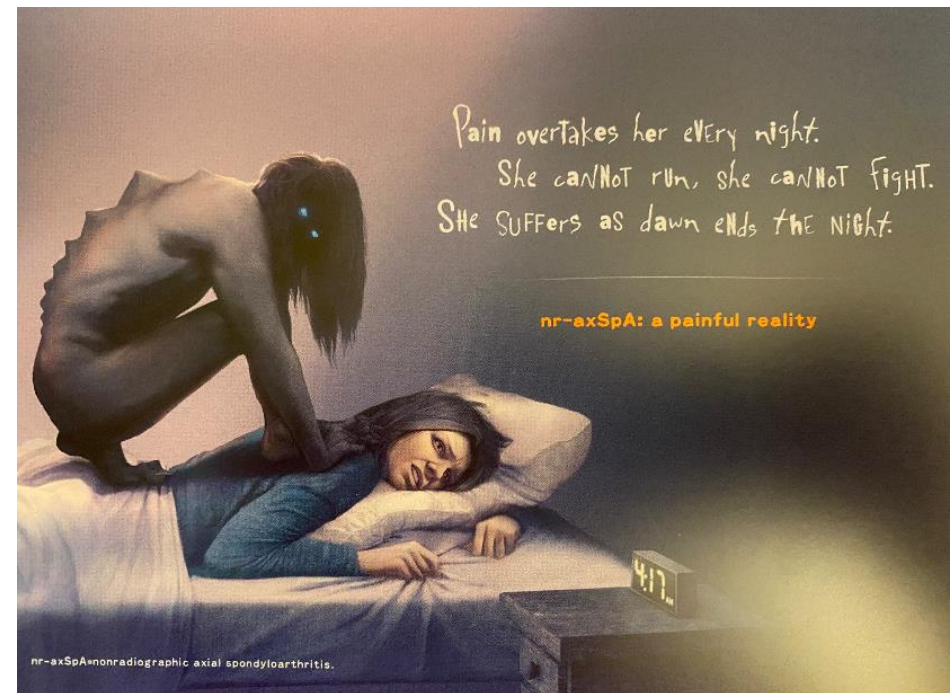


Spondylarthrites

Dr. Michael Nissen
Médecin adjoint agrégé
Service de Rhumatologie, HUG

mjni@hcuge.ch





Spondylarthrites =

Spondyloarthrites

Spondylarthropathies

Spondyloarthritides

« SpA »

Spondylarthrite ankylosante



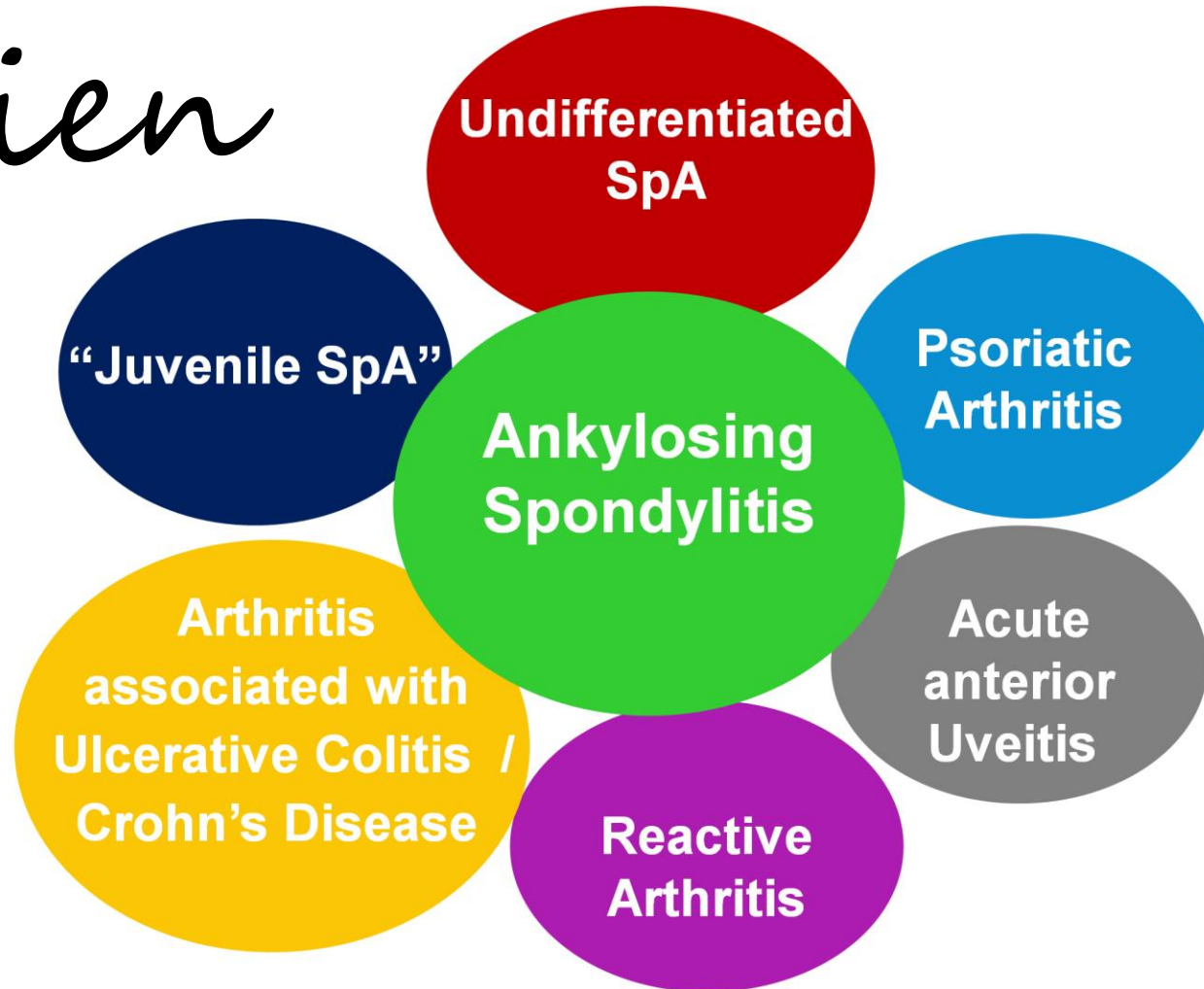
**Vladimir Mikhailovich
Bekhterev**

= spondylarthrite axiale
radiologique

= maladie de Bechterew

Spondyloarthritides (SpA)

Ancien



Concept of Spondyloarthritides (SpA)

Nouveau

Non-radiographic
axial SpA

Ankylosing Spondylitis

Predominantly Axial
SpA

Reactive arthritis

Psoriatic Arthritis

Arthritis with inflammatory
bowel disease

Undifferentiated SpA

Predominantly Peripheral
SpA



Prévalence = 1 %

Non-radiographic
axial SpA **50%**

Ankylosing Spondylitis
50%



Predominantly Axial
SpA **50%**

Reactive arthritis

Psoriatic Arthritis

Arthritis with inflammatory
bowel disease

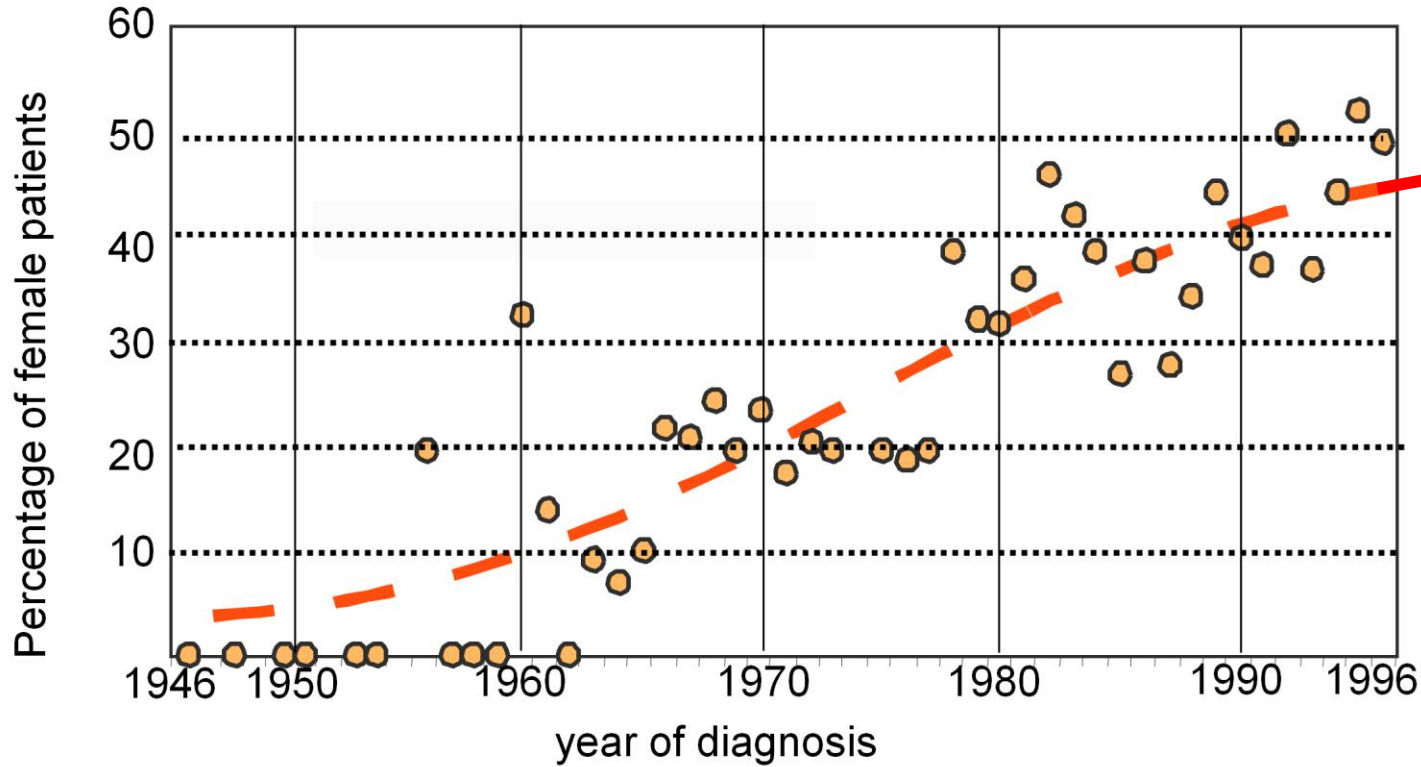
Undifferentiated SpA



Predominantly Peripheral
SpA **50%**



Percentage of Female AS Patients is Dependent on Year of Diagnosis



2022

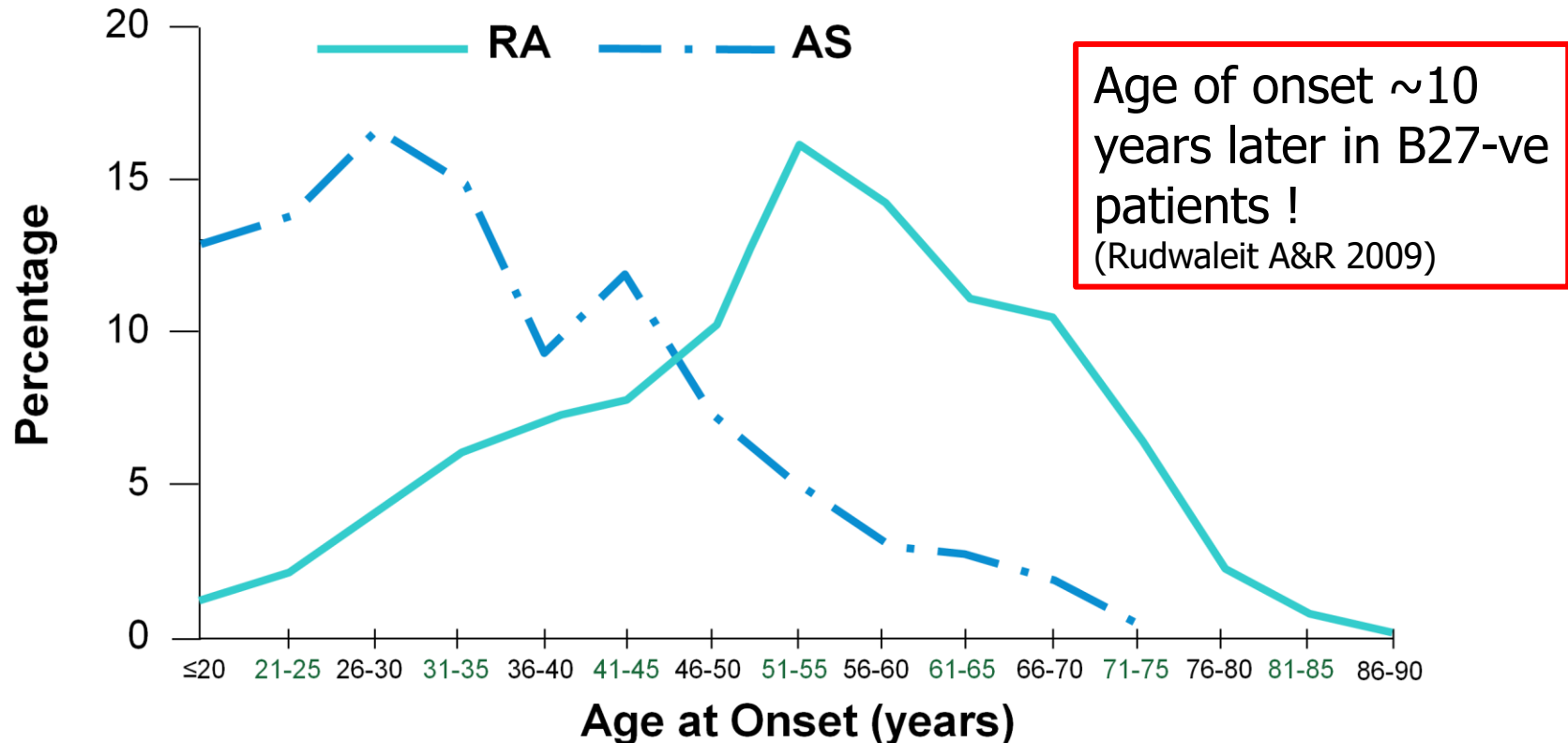


In recent years, the gender ratio approached 1:1.

F > M si nr-axSpA !

Axial SpA Usually Starts in the Third Decade of Life

- An onset after 45 years of age is exceptional.



Disease duration ≤5 years; data from 1993 to 1998, national database of the German Collaborative Arthritis Centres

Adapted from: Zink A et al. Ann Rheum Dis 2001;60:199-206 (with permission)

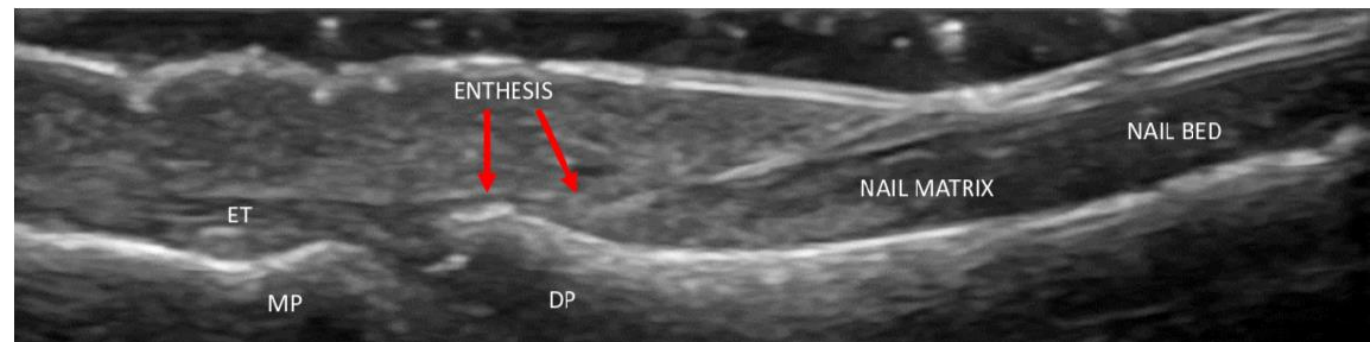
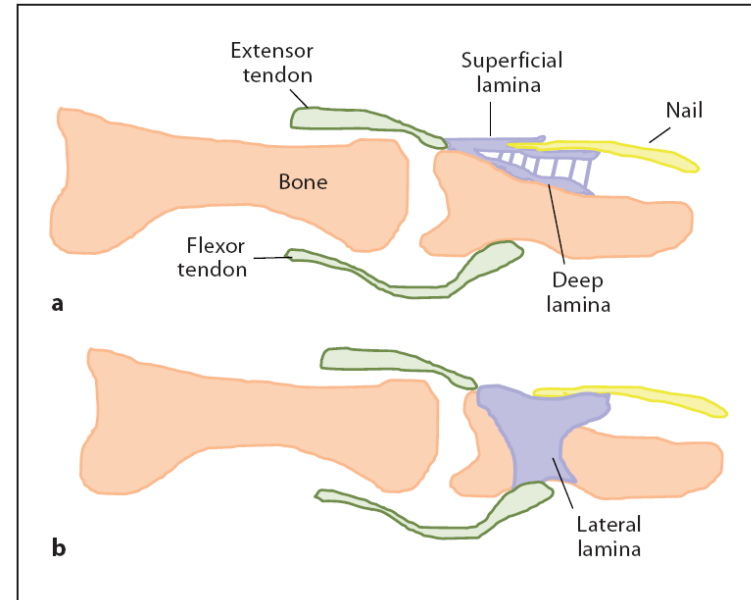


Enthésite

Enthésite = Inflammation d'une **enthèse**

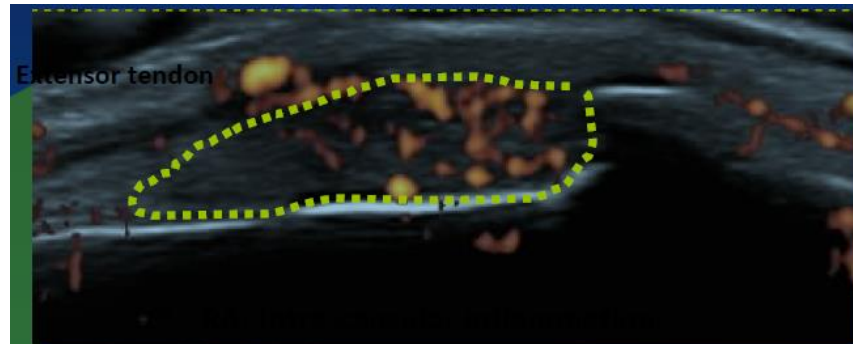
Insertion sur l'os

- D'un tendon
- D'un ligament
- De cartilage
- D'un ongle

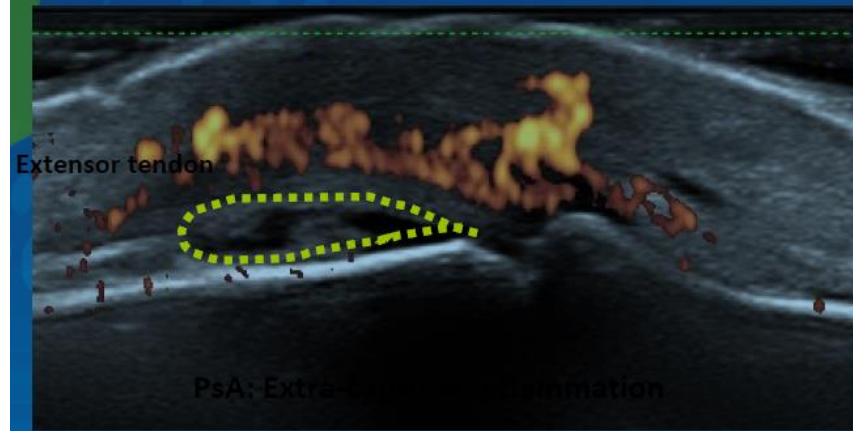


Synovitis VS. Extra-capsular inflammation

RA



SpA

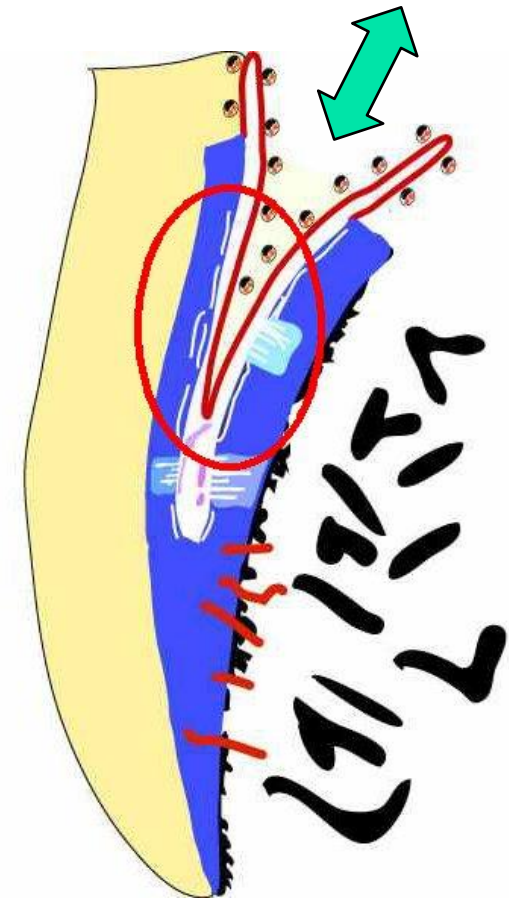
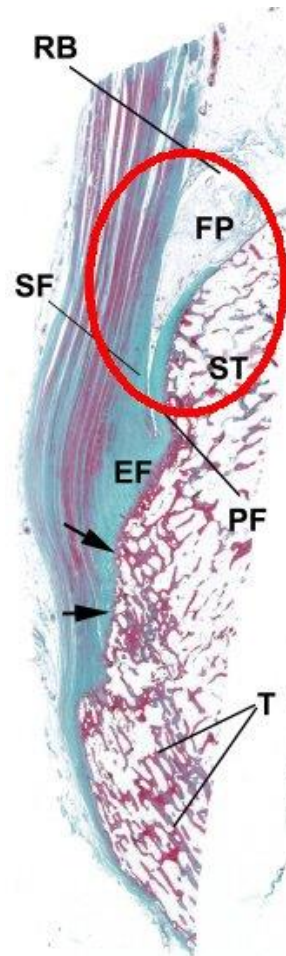


Enthésite

« The Synovio-Enthesal Complex » (SEC)

SEC :

- Tendon
- Enthèse
- Os sous-chondral
- Fibrocartilage
- Bourse



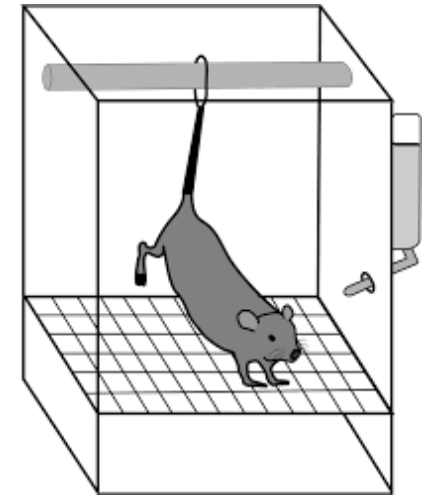
Enthésites

Favorisées par :

- **Stress mécaniques :**
 - Traumatismes
 - Microtraumatisme



The Goldilocks Principle



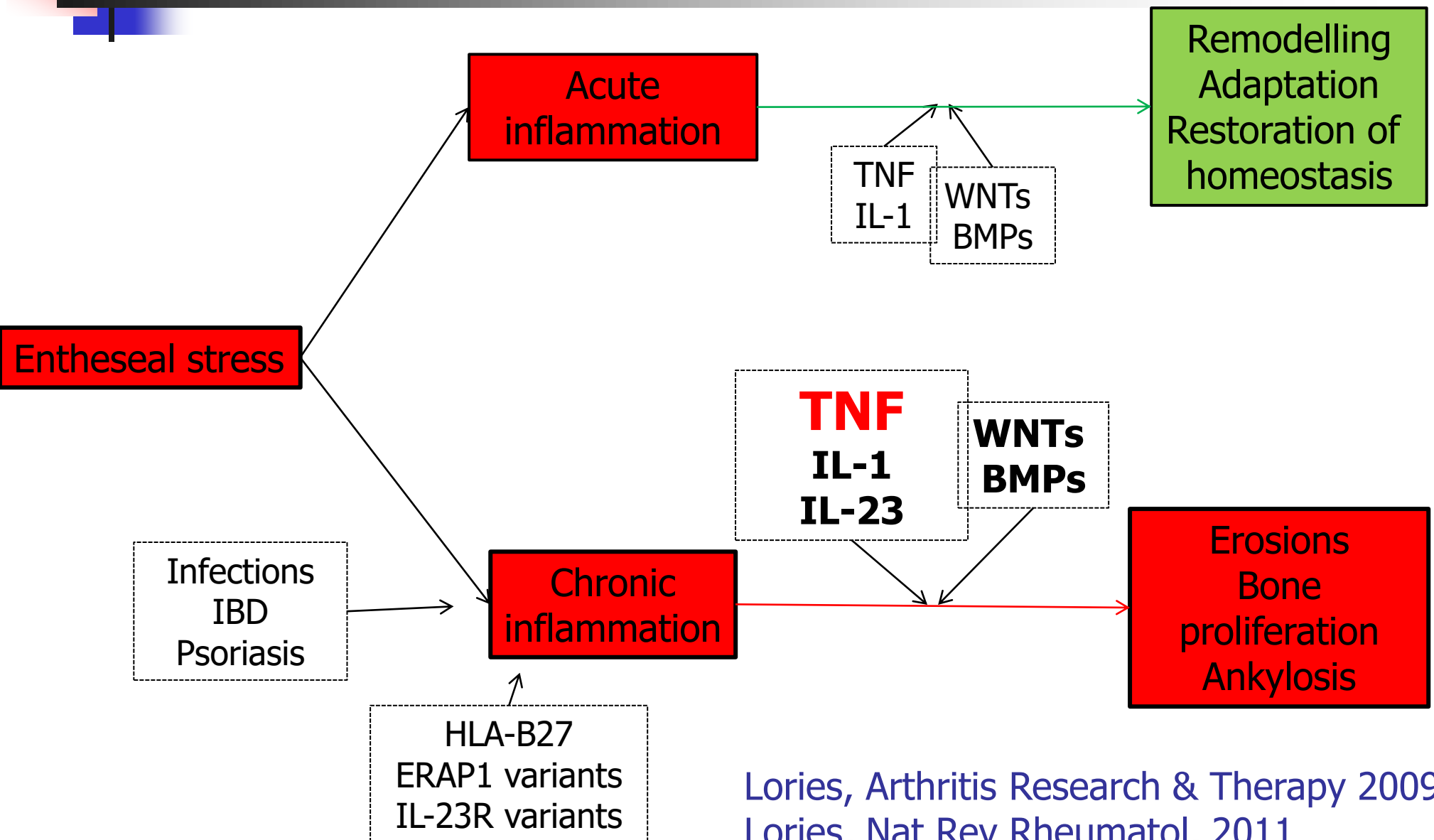
Enthésites

Favorisées par :

- Stress **mécaniques** :
 - Traumatismes
 - Microtraumatisme
- Stress **biologiques**
 - Infections
 - Chlamydiae, Salmonella, Shigella, Yersinia, Campylobacter
 - Autres
- Stress **psychiques**



Enthésite



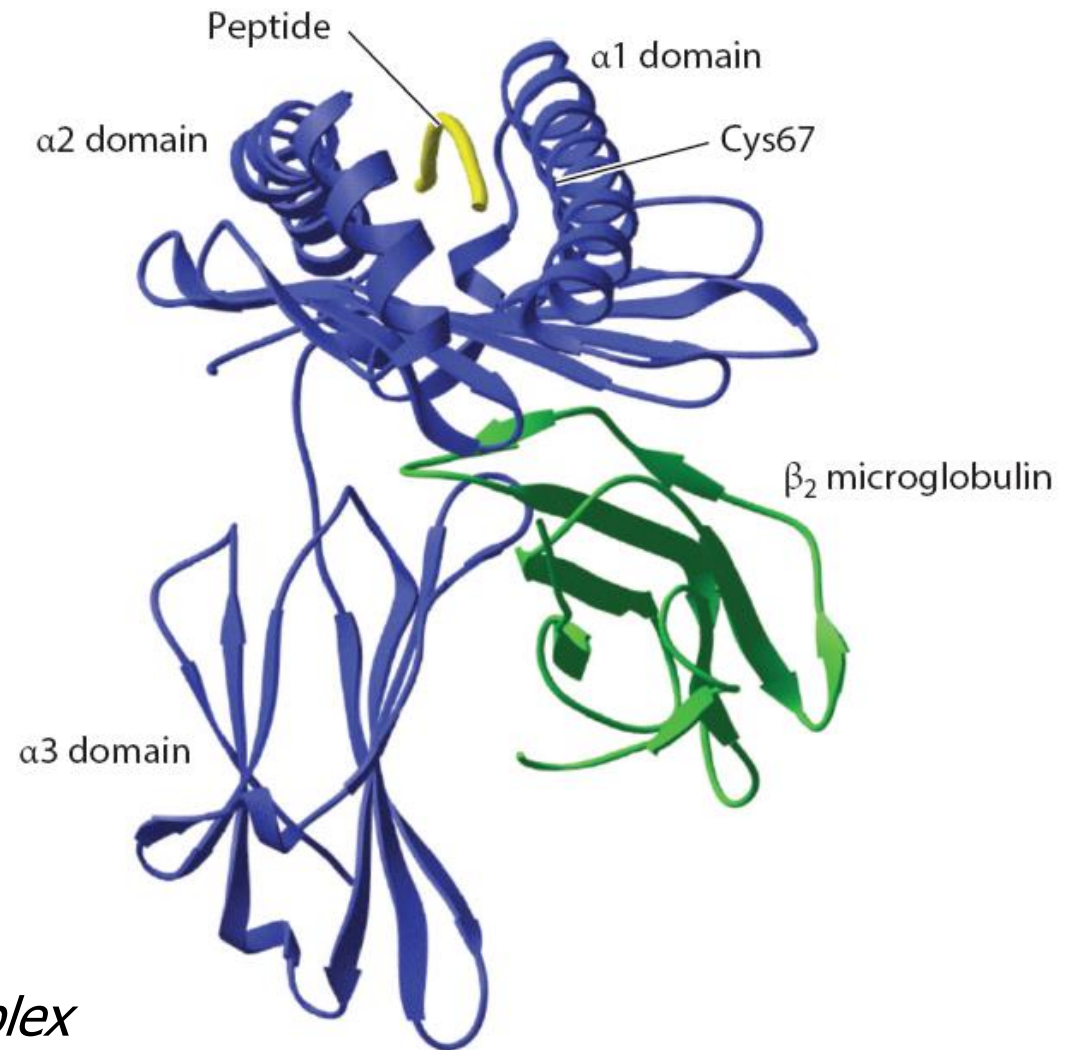
HLA-B27

L'antigène HLA-B27

- de surface de classe I
- codé par le locus B du MHC
- sur le chromosome 6.

HLA = *human leucocyte antigen*

MHC = *major histocompatibility complex*



HLA-B27

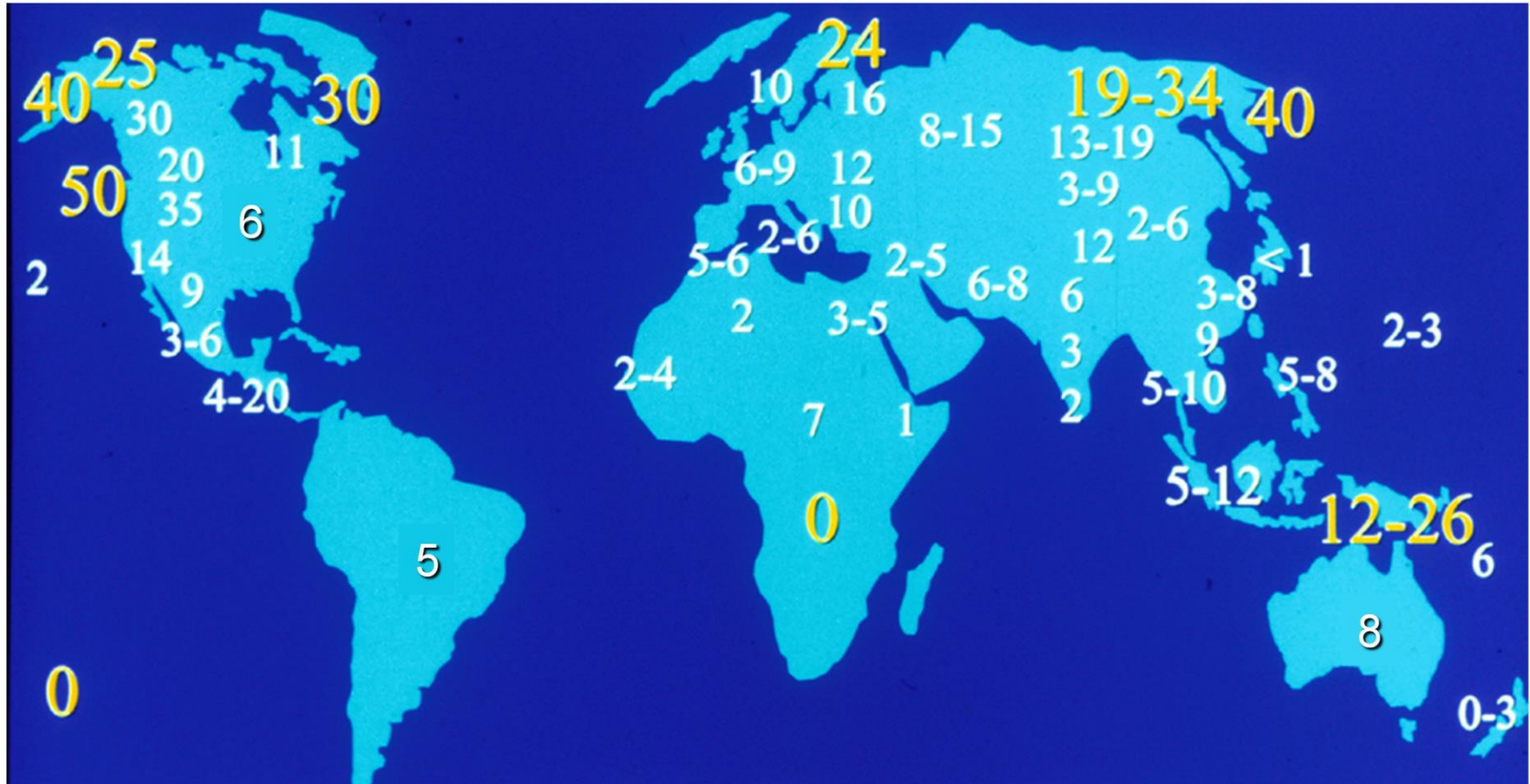
Disease	HLA-B27 approximate frequency (%)
Ankylosing spondylitis	94 (OR 171)
Reactive arthritis	30–75
Colitis-associated spondyloarthritis	33–75
Psoriatic spondyloarthritis	40–50
Juvenile enthesitis-related arthritis	76
Acute anterior uveitis	50
General population (CH)	7

Seulement 5% de la population HLA-B27+ → SpA



© Muhammad Asim Khan

Percentage Prevalence of HLA-B27 in Various Populations of the World



Khan MA Curr Opin Rheumatol 1995;7:263-9

Khan MA J Clin Rheumatol 2008;14:50-2

Khan MA. In Mehra N (Ed). The HLA Complex in Biology and Medicine. New Dehli, India 2010; 422-46.

Reveille J et al. Arthritis Rheum 2012;64:1407-11



Contribution to heritability of ankylosing spondylitis of confirmed susceptibility genes

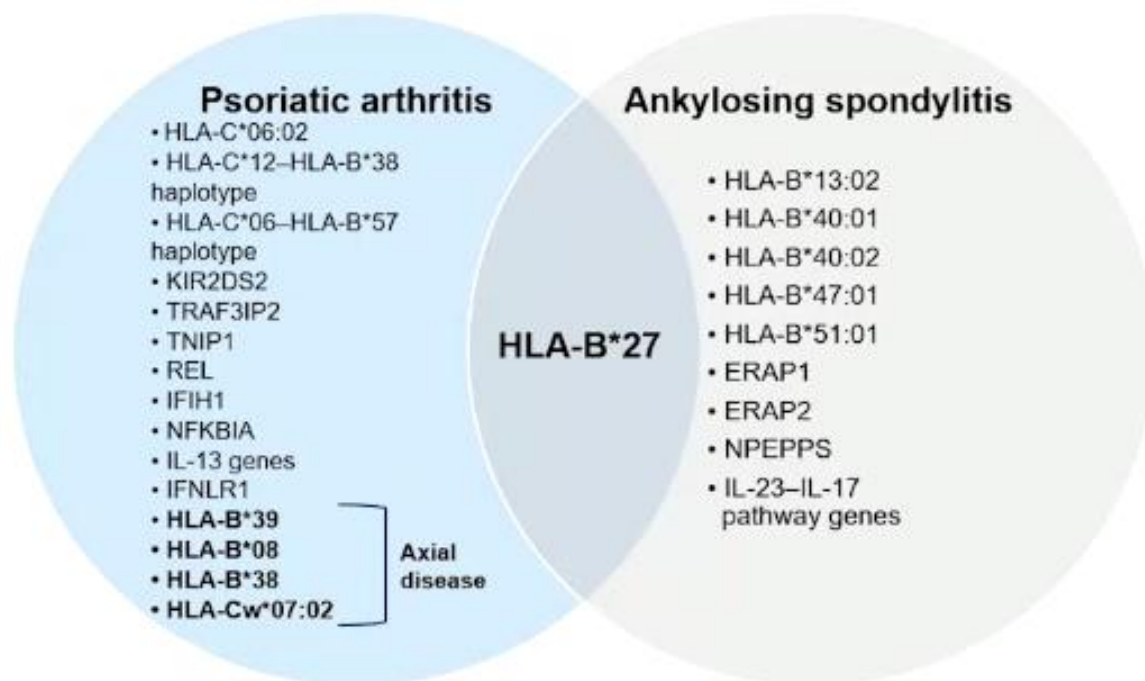
Gene name or chromosomal region	Most highly associated SNP	Odds ratio	Overall contribution to AS heritability (percent)
<i>HLA-B27</i>	rs4349859	90.4	23.3
<i>IL23R</i>	rs11209026	1.90	0.31
<i>LTBR-TNFRSF1A</i>	rs11616188	1.38	0.075
2p15	rs10865331	1.36	0.54
<i>ERAP1</i>	rs30187	1.35	0.34
<i>KIF21B</i>	rs2297909	1.25	0.25
21q22	rs378108	1.25	0.035
<i>TBKBP1</i>	rs8070463	1.24	0.054
<i>ANTXR2</i>	rs4389526	1.21	0.054
<i>PTGER4</i>	rs10440635	1.20	0.052
<i>RUNX3</i>	rs11249215	1.19	0.12
<i>IL12B</i>	rs6556416	1.18	0.11
<i>CARD9</i>	rs10781500	1.18	0.034
<i>IL1R2</i>	rs2310173	1.18	0.12
Total:			25.39

MHC-related

Non-MHC related

Axial PsA represents a distinct endotype

*HLA-B*27 is the only genetic risk factor common to both diseases*



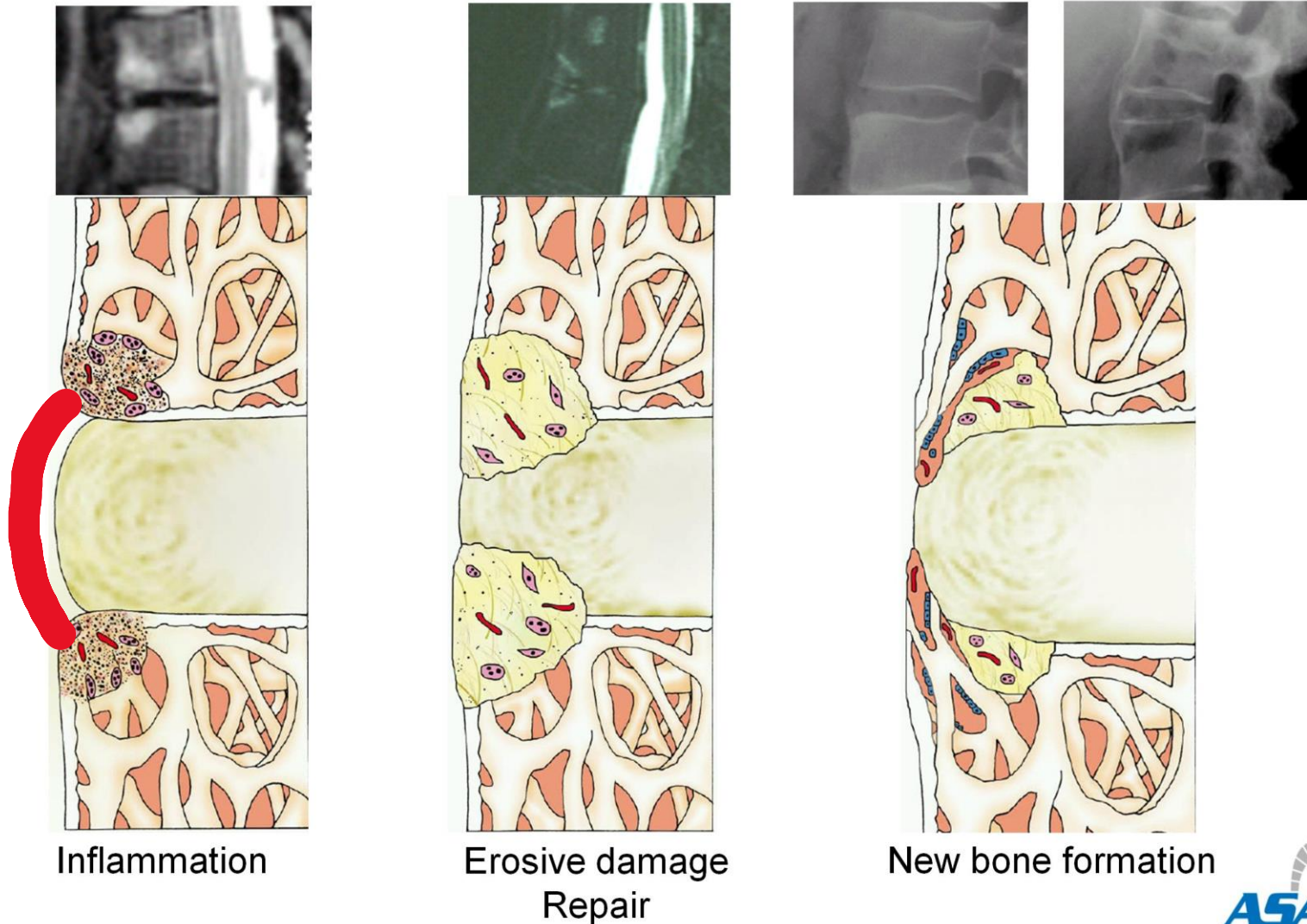
- Axial disease in PsA is associated with a number of HLA-B and -C genes¹
- 20–40% of axial PsA patients are HLA-B*27+^{2,3}

AS, ankylosing spondylitis; HLA, human leucocyte antigen; IFIH1, interferon induced with helicase C domain 1; IFNLR1, interferon lambda receptor 1; IL, interleukin; KIR2DS2, killer cell immunoglobulin like receptor, two Ig domains and short cytoplasmic tail 2; PsA, psoriatic arthritis; TRAF3IP2, TRAF3 interacting protein 2

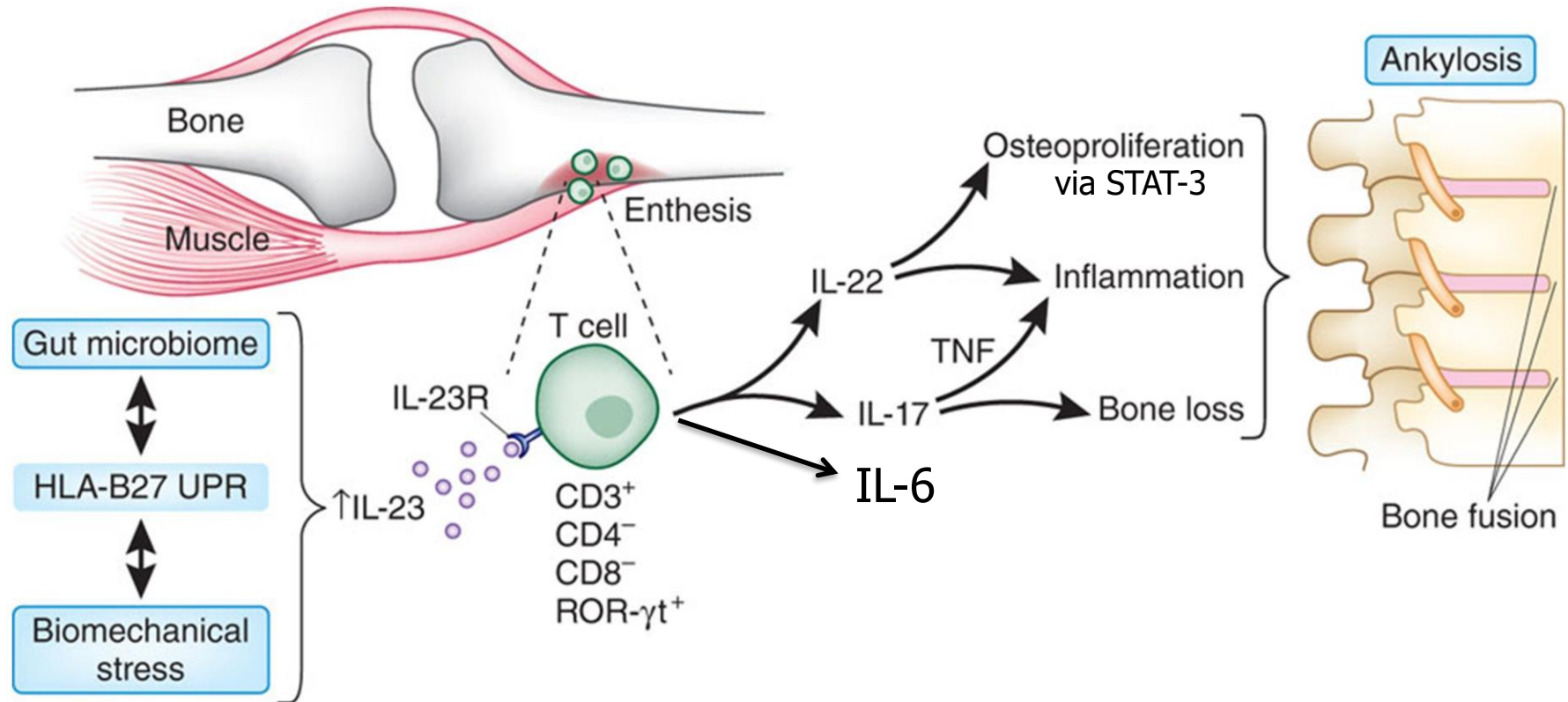
1. Feld J, et al. *Nat Rev Rheumatol*. 2018;14:363–71; 2. Feld J, et al. *Rheumatol*. 2020;59:1340–6.

3. Hellweck PS. *Rheumatol*. 2019; 1–3.

Proposed Sequence of Structural Damage in Ankylosing Spondylitis



IL-23 and entheseal-resident T cells promote enthesitis and osteoproliferation in spondyloarthritis



Sherlock JP Nat Med 2012

Lories RJ et al. Nat Med 2012;18:1018-9 (with permission)

ENTHESIS: site of resident immune surveillance?

Symptômes cliniques

(souvent vagues dans la phase initiale)

- Symptômes généraux
 - Fatigue, perte de poids, parfois fièvre
- « Poussées » inflammatoires
- Raideur matinale (> 30 mins)
- Rachialgies, souvent nocturnes (fin de nuit)
 - Lombaires, cervicales ou dorsales
- Douleurs du bassin (pseudo-sciatalgies) avec irradiations unilatérales, bilatérales, ou à bascule
- Douleurs périphériques - talalgies (enthésites) ou arthrites périphériques
- Douleurs de la paroi thoraciques antérieur



Inflammatory back pain

Table 2. Characteristics of Inflammatory Back Pain.*

Characteristic

Age at onset, <45 yr

Duration, >3 mo

Insidious onset

Morning stiffness >30 min

Improvement with exercise

No improvement with rest

Awaking from pain, especially during second half of night, with improvement on arising

Alternating buttock pain

* The presence of two or more of these features should arouse suspicion for inflammatory back pain, and the presence of four or more features can be considered diagnostic. The sensitivity of inflammatory back pain for the diagnosis of axial spondyloarthritis is 70 to 80%. The specificity varies, depending on the population being studied.^{8,9}

Cliniquement

- Atteintes des articulations périphériques
 - Asymétriques
 - Pauciarticulaires
 - Prédominant sur les membres inférieurs
- Atteintes axiales
 - rachis et sacro-iliaques
- Atteintes muco-cutanées fréquentes
 - Psoriasis, glossite, balanite, cervicite, uréthrite aseptique



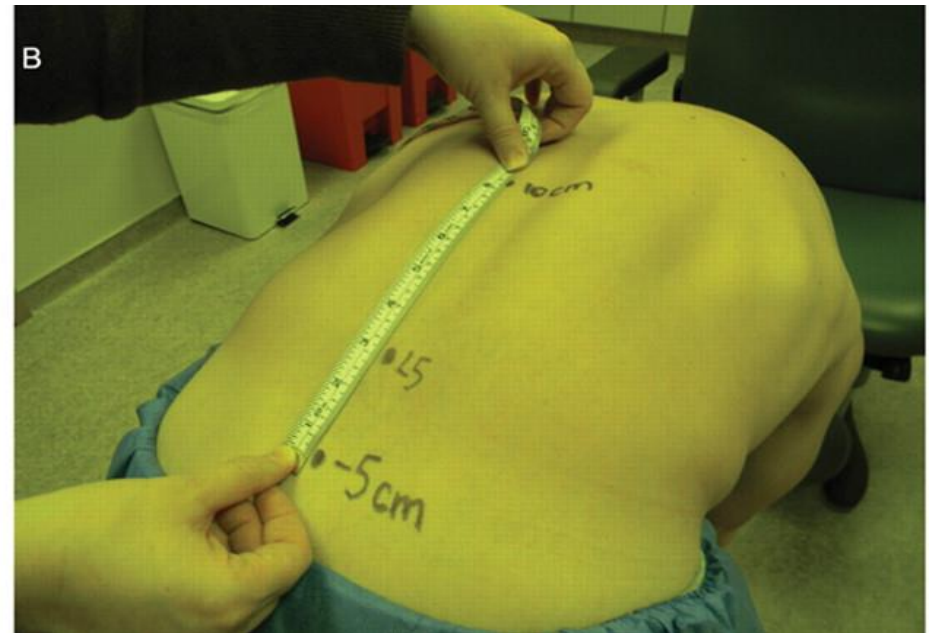
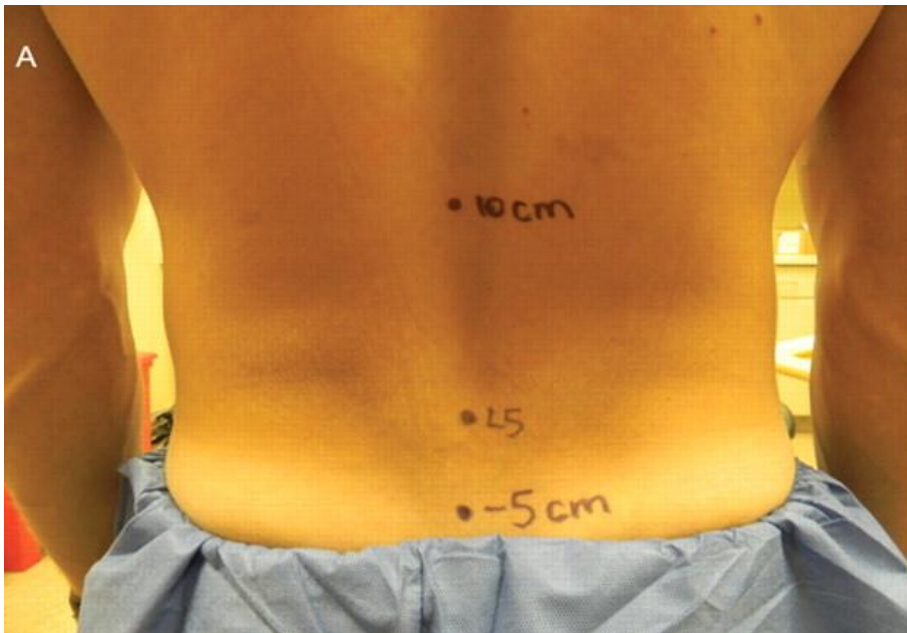
Signes cliniques

(souvent vagues dans la phase initiale)

- Diminution de la mobilité du rachis
 - Lombaire >> thoracique ou cervical
- Palpation des enthèses sensible +/- tuméfaction
- Articulations périphériques sensible +/- synovite
- Dactylites
- Psoriasis cutané
- Œil rouge (uvéite)
- Douleur abdominale (colite)

Test de Schober lombaire:

L4-L5 → 10 cm au-dessus, 5 cm en dessous



Schober lombaire

Augmentation normalement >5cm

Atteinte articulaire

Prédominance distale
(IPD mains et pieds)



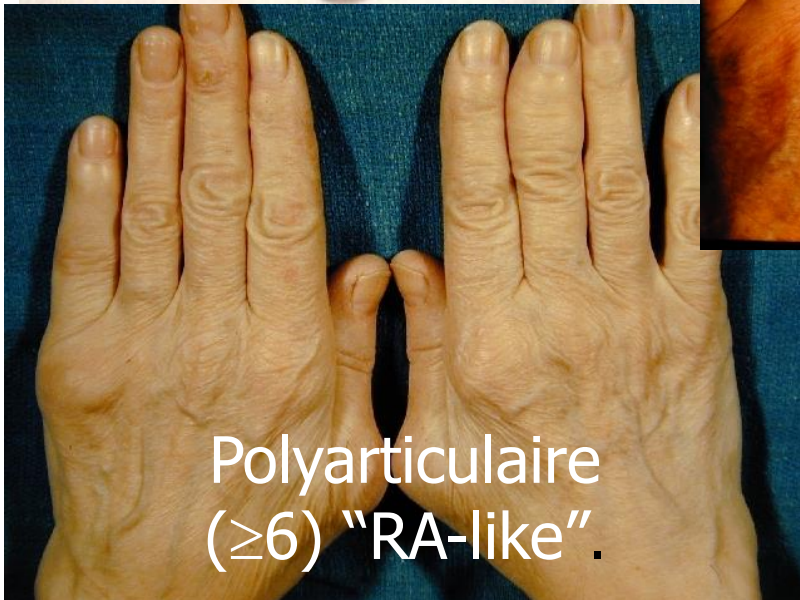
Oligoarticulaire
(2 à 5), souvent asymétr



Arthrite mutilante
destructrice



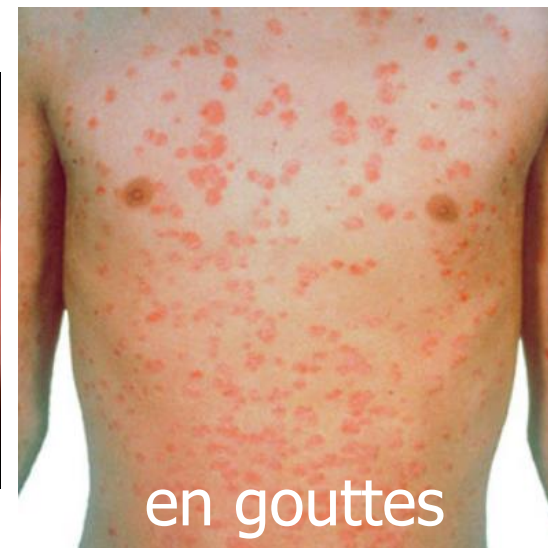
Polyarticulaire
(≥ 6) "RA-like".



Atteinte axiale
(spondylarthrite,
Bechterew)



Atteinte cutanée

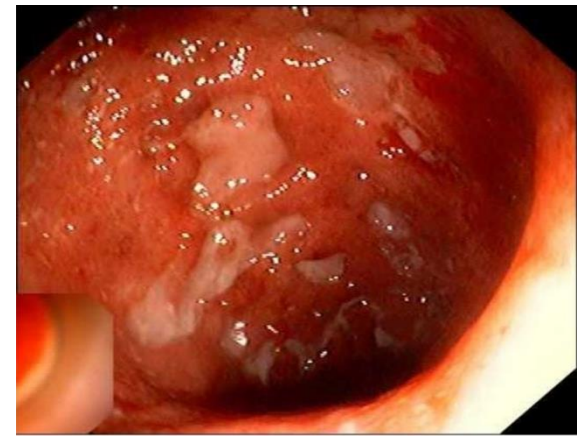
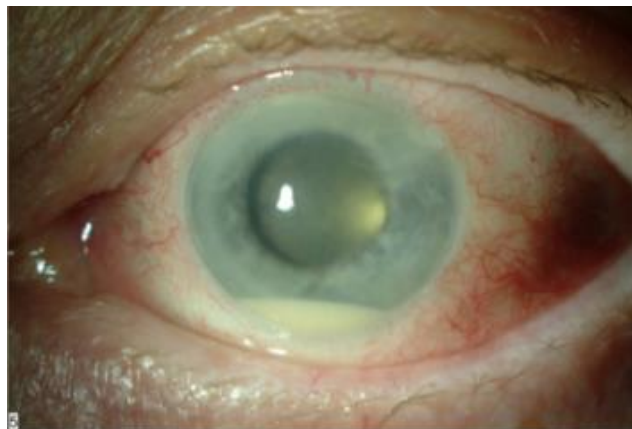


Augmentation de risque de PsA si...



Manifestations extra-articulaires

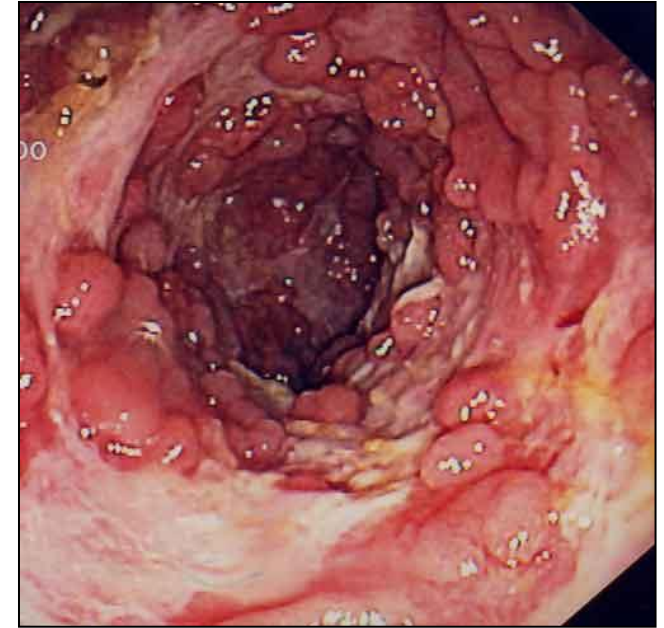
- Psoriasis (+ ongles)
- Enthésite (+/- tendinite)
- Dactylite
- Uvéite (antérieure, aiguë, unilat)
- Colite (Crohn, RCUH)



Maladies inflammatoires du côlon intestinal (MICI)



Colite ulcéreuse (RCUH)

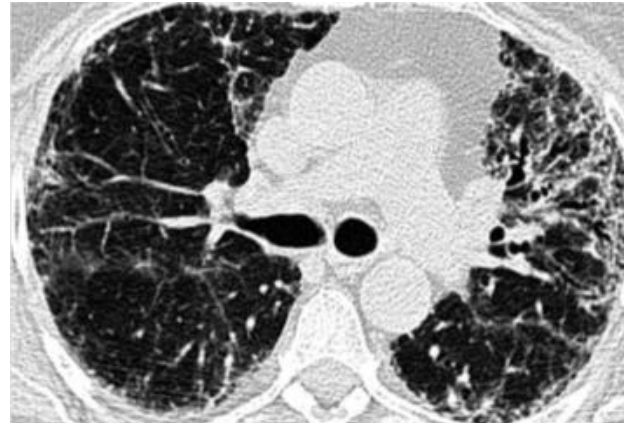
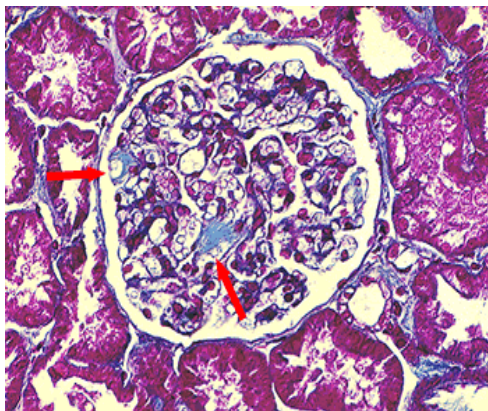
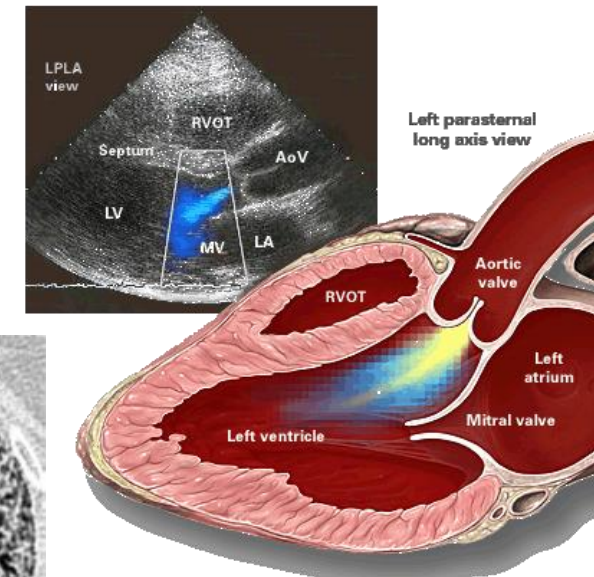
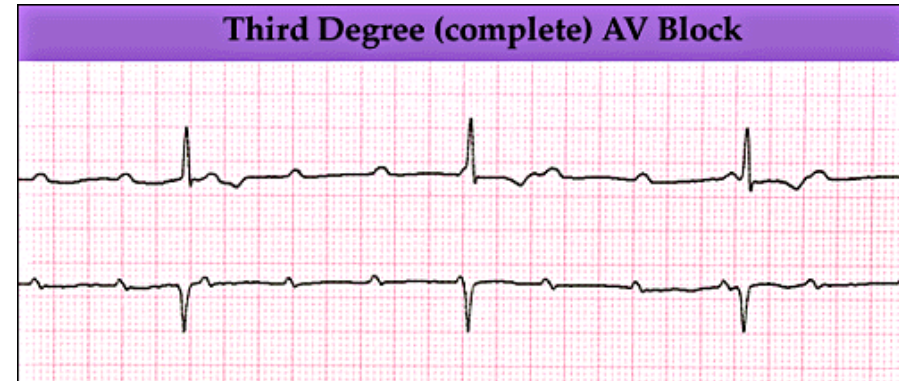


Maladie de Crohn

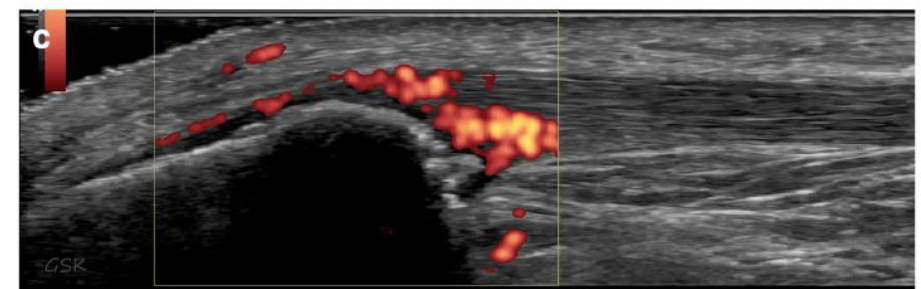
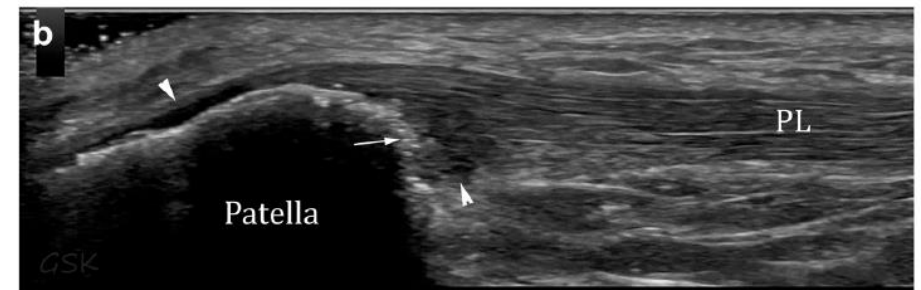
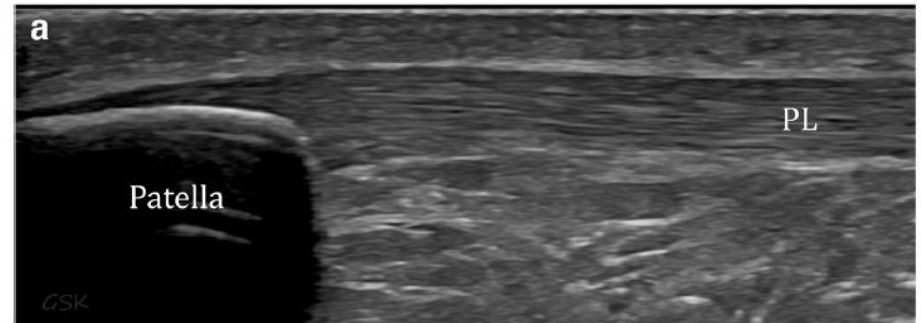
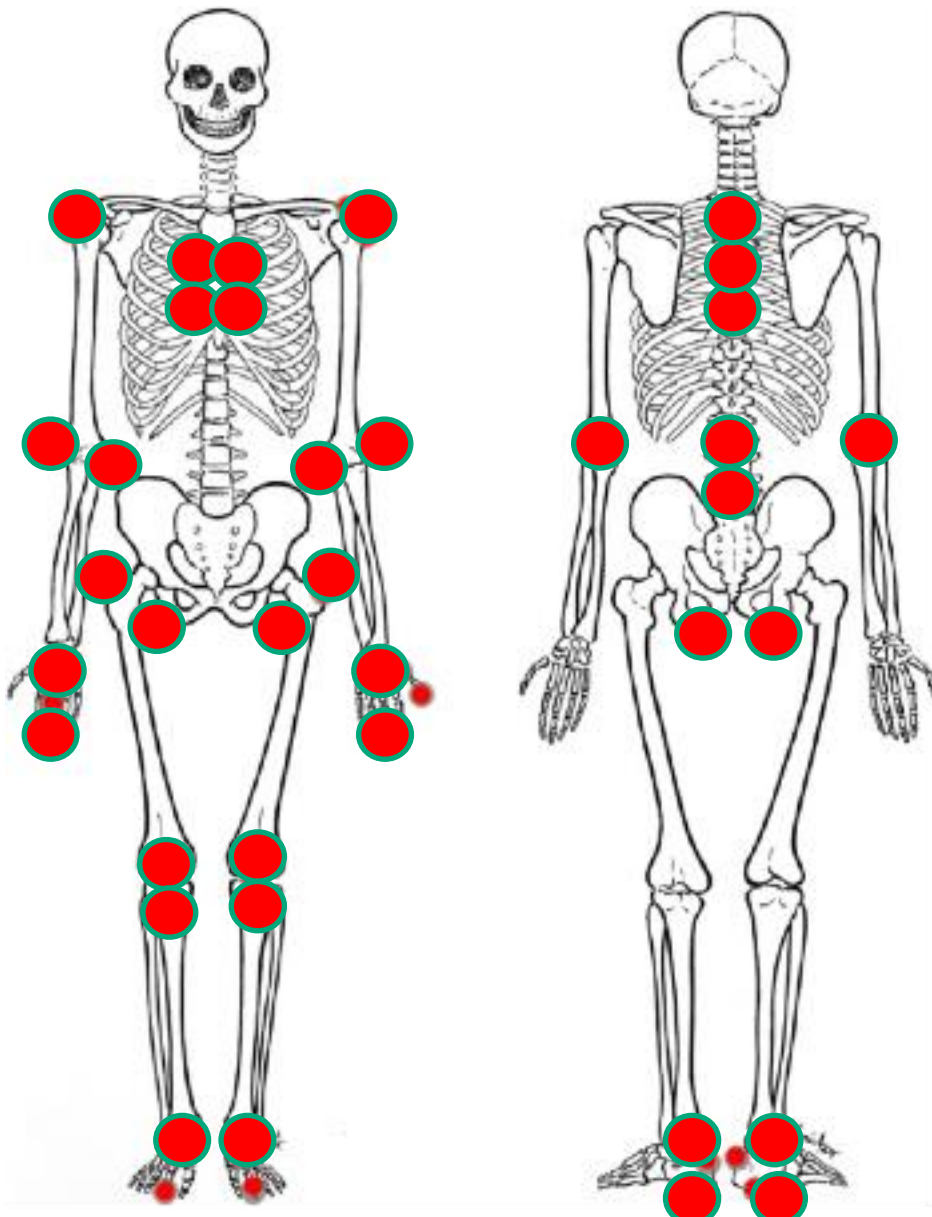
- Diarrhées
- Douleurs abdominales
- Saignements

Spondylarthritides – atteintes rares

- Cardiaques :
 - Blocs de conduction
 - Aortite +/- régurgitation
 - Myocardite
- Pulmonaires :
 - Fibrose
- Amyloïdose +/- insuffisance rénale



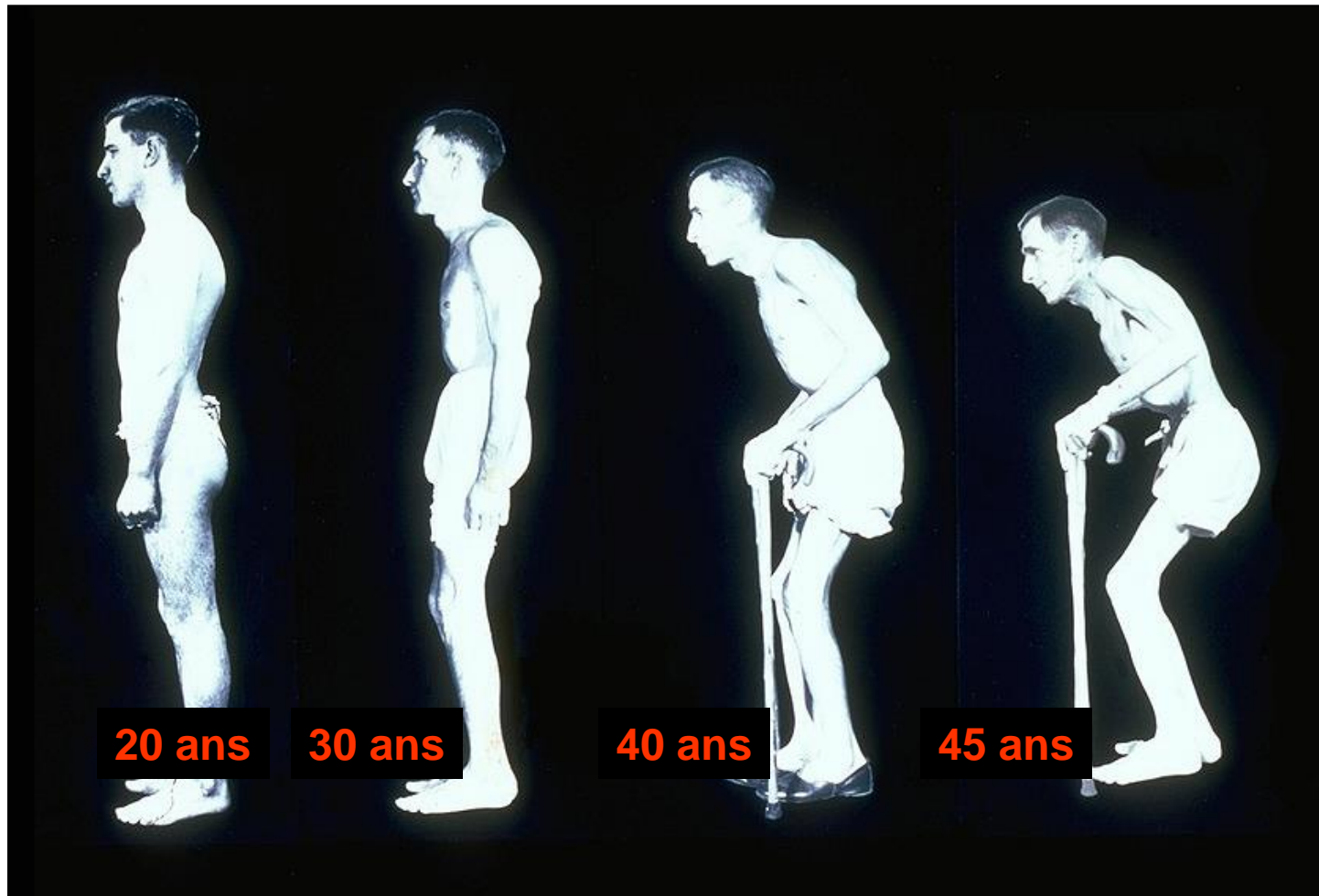
Enthésites - enthésopathies



Enthésites - enthésopathies

Table 1 Various Medical Disorders Manifesting with Enthesopathy		
Rheumatic Disorders	Metabolic and Endocrine Disorders	Drug-Induced
Spondyloarthropathies	Hyperparathyroidism	Fluoride and fluoroquinolones
Rheumatoid arthritis	Hypoparathyroidism	Glucocorticosteroids
Chondrocalcinosis	X-linked hypophosphatemia	Retinoids
Osteoarthritis	Hypothyroidism	
DISH	Acromegaly	
SAPHO	Hemochromatosis	
	Ochronosis	
	Familial hypercholesterolemia	
	Diabetes mellitus	
	Chronic renal failure	

Evolution de la spondylarthrite ankylosante

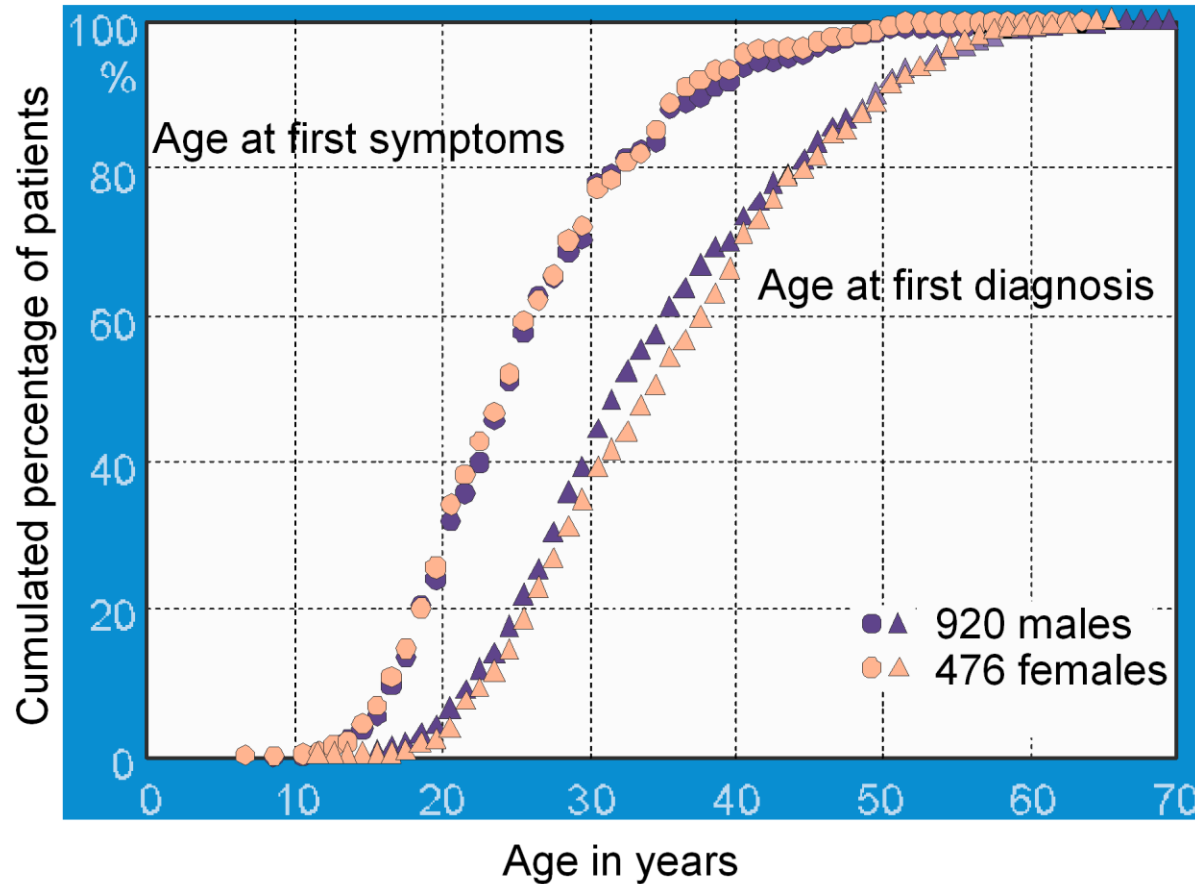


Symptômes et signes cliniques - phase avancée

- Persistance / augmentation des douleurs
- ↓ de la mobilité globale du rachis
- Cyphose dorsale +++
- Délordose lombaire
- Délordose cervicale
- Hyperlordose crania-cervicale
- Flexum de hanches et genoux
- Diminution de l'expansion thoracique
 - Respiration abdominale
 - Protrusion musculature abdominale



Age at First Symptoms and at First Diagnosis in Ankylosing Spondylitis Patients



Problème ! Average delay in diagnosis: 9 years

Modified New York Criteria for Ankylosing Spondylitis (1984)

1. Clinical criteria:

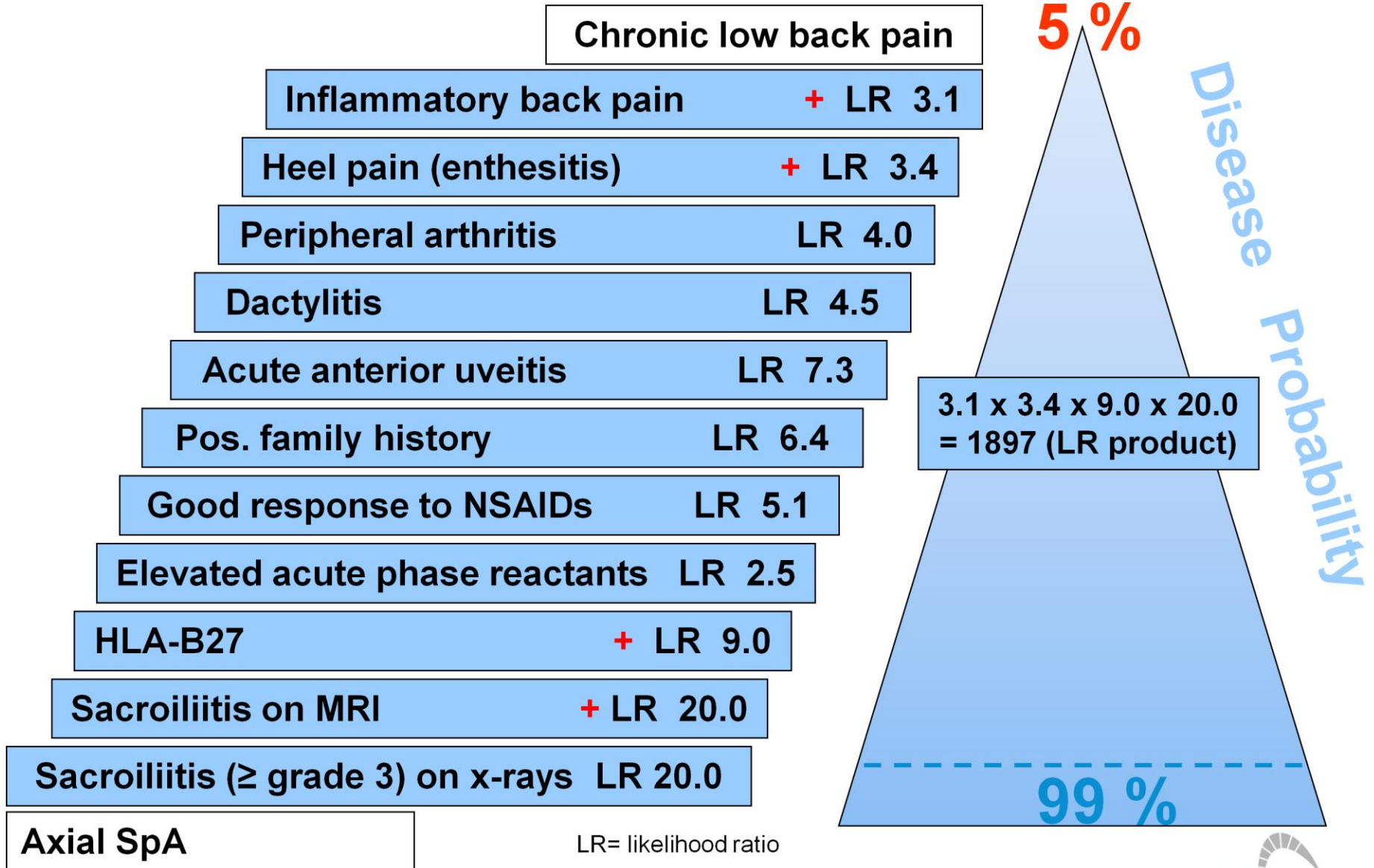
- a. Low back pain and stiffness for more than 3 months which improves with exercise, but is not relieved by rest.
- b. Limitation of motion of the lumbar spine in both the sagittal and frontal planes.
- c. Limitation of chest expansion relative to normal values correlated for age and sex.

2. Radiological criterion:

Sacroiliitis grade ≥ 2 bilaterally or grade 3-4 unilaterally

Definite ankylosing spondylitis if the radiological criterion is associated with at least 1 clinical criterion.

Diagnostic Pyramid for Axial Spondyloarthritis



Modified from: Rudwaleit M et al. Arthritis Rheum 2005;52:1000-8



ASAS Classification Criteria for Axial Spondyloarthritis (SpA)

In patients with ≥ 3 months back pain and age at onset < 45 years

Sacroiliitis on imaging*
plus
 ≥ 1 SpA feature

OR

HLA-B27
plus
 ≥ 2 other SpA features

***Sacroiliitis on imaging**

- active (acute) inflammation on MRI highly suggestive of sacroiliitis associated with SpA
- definite radiographic sacroiliitis according to the modified New York criteria

SpA features:

- inflammatory back pain
- arthritis
- enthesitis (heel)
- uveitis
- dactylitis
- psoriasis
- Crohn's/colitis
- good response to NSAIDs
- family history for SpA
- HLA-B27
- elevated CRP

n=649 patients with back pain;

Overall

Sensitivity: 82.9%, Specificity: 84.4%

Imaging arm alone

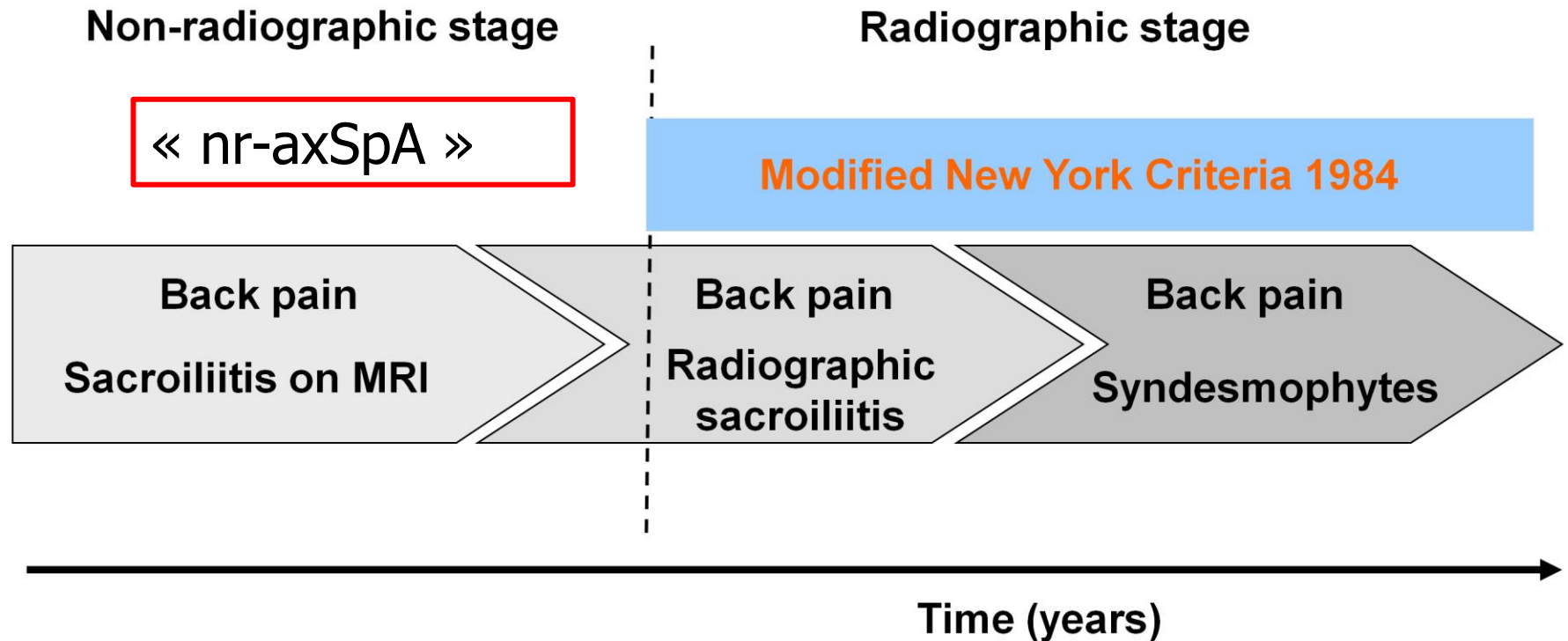
Sensitivity: 66.2%, Specificity: 97.3%

Clinical arm alone

Sensitivity: 56.6%, Specificity: 83.3%



Axial Spondyloarthritis



Mean progression nr-axSpA → AS ~5% per year

ASAS Classification Criteria for Peripheral Spondyloarthritis (SpA)

**Arthritis or enthesitis or dactylitis
plus**

≥ 1 SpA feature

- uveitis
- psoriasis
- Crohn's/colitis
- preceding infection
- HLA-B27
- sacroiliitis on imaging

OR

≥ 2 other SpA features

- arthritis
- enthesitis
- dactylitis
- IBP (ever)
- family history for SpA

Peripheral arthritis: usually predominantly lower limbs and/or asymmetric arthritis

Enthesitis: clinically assessed

Dactylitis: clinically assessed

IBP: Inflammatory back pain

Sensitivity: 77.8%, Specificity: 82.2%; n=266

Diagnostic : Critères de « CASPAR »

Donc possible de diagnostiquer un rhumatisme psoriasique même si présence des facteurs rhumatoïdes

Table. The CASPAR classification criteria for PsA

To be classified as having PsA, a patient must have inflammatory articular disease (joint, spine, enthesal) with ≥ 3 of the following 5 points:

Criterion	Description
1. Evidence of psoriasis (one of a, b, c): (a) Current psoriasis ^a	Psoriatic skin or scalp disease currently present, as judged by a rheumatologist or a dermatologist
(b) Personal history of psoriasis	A history of psoriasis obtained from patient or family physician, dermatologist, rheumatologist, or other qualified health care professional
(c) Family history of psoriasis	A history of psoriasis in a first- or second-degree relative by patient report
2. Psoriatic nail dystrophy	Typical psoriatic nail dystrophy, including onycholysis, pitting, and hyperkeratosis observed on current physical examination
3. Negative test result for RF	By any method except latex but preferably by ELISA or nephelometry, according to the local laboratory reference range
4. Dactylitis (one of a, b): (a) Current	Swelling of an entire digit
(b) History	A history of dactylitis recorded by a rheumatologist
5. Radiological evidence of juxta-articular new bone formation	Ill-defined ossification near joint margins (excluding osteophyte formation) on plain x-ray films of hand or foot

CASPAR, Classification criteria for Psoriatic ARthritis; PsA, psoriatic arthritis; RF, rheumatoid factor; ELISA, enzyme-linked immunosorbent assay.

^a Current psoriasis scores 2; all other items score 1.

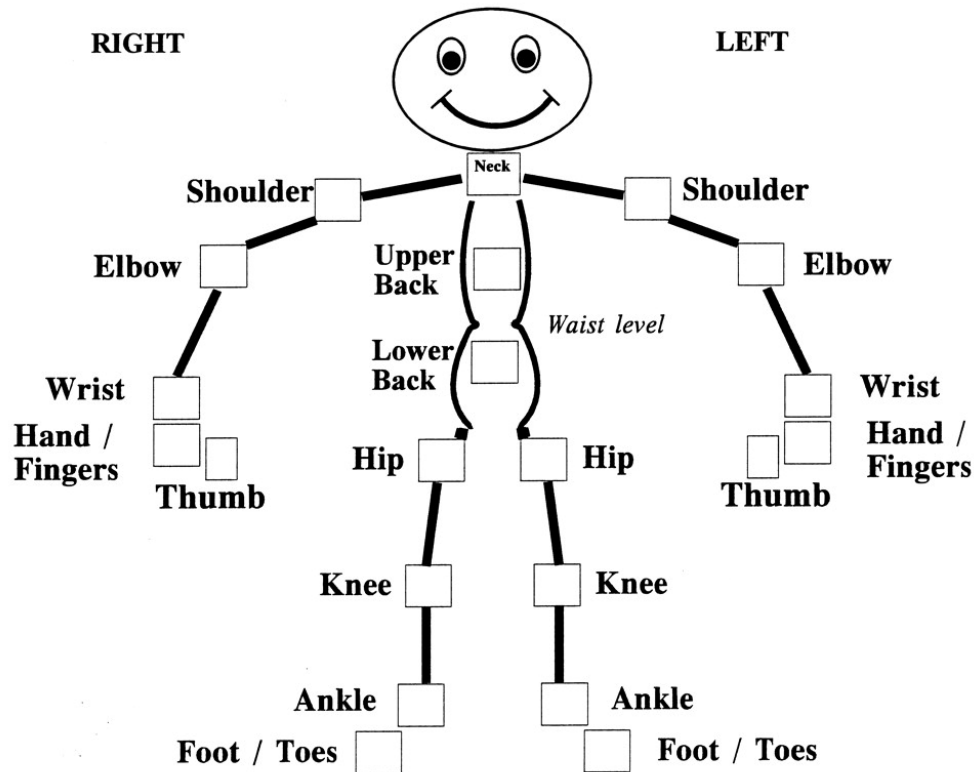
Screening « PSA »

- Pain (in the joints)
- Stiffness (morning), **S**welling, **S**ausage digit
- Axial spine involvement (back pain) particularly in the morning that improves with activity

	Meaning	Comments
P	Pain	Joint pain is a key feature of PsA.
S	Swelling/Sausage Digits, Stiffness	Involved joints often become swollen due to inflammatory effusions. “Sausage digit” is the classic description of dactylitis. Joint stiffness after >30 minutes of inactivity or upon awakening in the morning is a classic feature of PsA.
A	Axial	PsA may clinically develop as a spondyloarthropathy with involvement of the <u>A</u> xial spine and sacroiliac joints.

	NO	YES
Have you ever had a swollen joint (or joints)?		
Has a doctor ever told you that you have arthritis?		
Do your finger nails or toe nails have holes or pits?		
Have you had pain in your heel?		
Have you had a finger or toe that was completely swollen and painful for no apparent reason?		

In the drawing below, please tick the joints that have caused you discomfort (i.e., stiff, swollen, or painful joints).



«PEST»

Fig. 3. The PEST screening questionnaire for psoriatic arthritis (in people with psoriasis).

Score 1 point for each question answered in the affirmative. A total score of 3 or more is indicative of psoriatic arthritis (PPV 0.65, NPV 0.99).

Diagnostic différentiel :

Table 1. Differentiating rheumatoid arthritis (RA) and psoriatic arthritis (PsA)

Features	PsA	RA
Number of joints involved	30–50% with oligoarthritis	Predominant polyarthritis
Joint involvement	Any joint, including distal interphalangeal joints	Usually distal interphalangeal joint sparing
Enthesitis	Typical, clinically present in 60–80%	Not typical
Dactylitis	Present in 30%	Not typical
Axial involvement	Axial spondyloarthritis phenotype	Erosive cervical disease
Skin/nail disease	Psoriasis in 80%, nail disease in 60%	Background population risk or lower
Serology	Usually RF and CCP negative	Usually RF and/or CCP positive
Typical radiographic changes	Periosteal new bone formation (uncommon especially in early disease)	Erosion and osteopenia

CCP = cyclic citrullinated peptide; RF = rheumatoid factor

Investigations

- **Prise de sang :**
 - CRP, VS
 - FR + anti-CCP (si présentation périphérique)
 - HLA-B27
- Calprotectine faecale (colite inflammatoire ?)
- **Radiographie du bassin** (AP)
- **IRM du bassin** : T1-STIR + T2 (+/- Gado)
 - (+/- IRM du rachis)
- +/- CT du bassin
- +/- Radiographies – mains / pieds / rachis
- +/- Densitométrie osseuse

Radio du bassin / sacro-iliaque

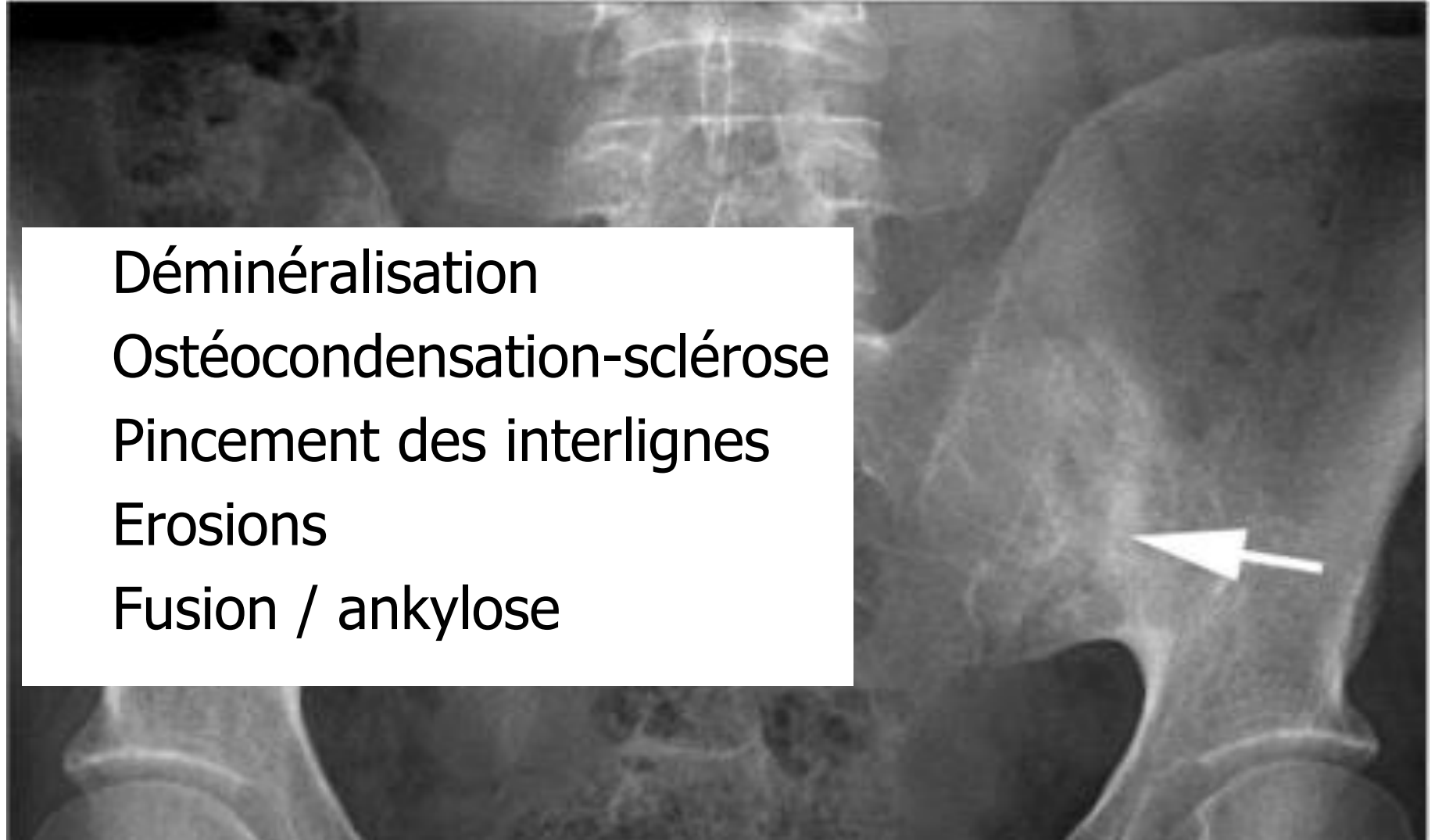
Déminéralisation

Ostéocondensation-sclérose

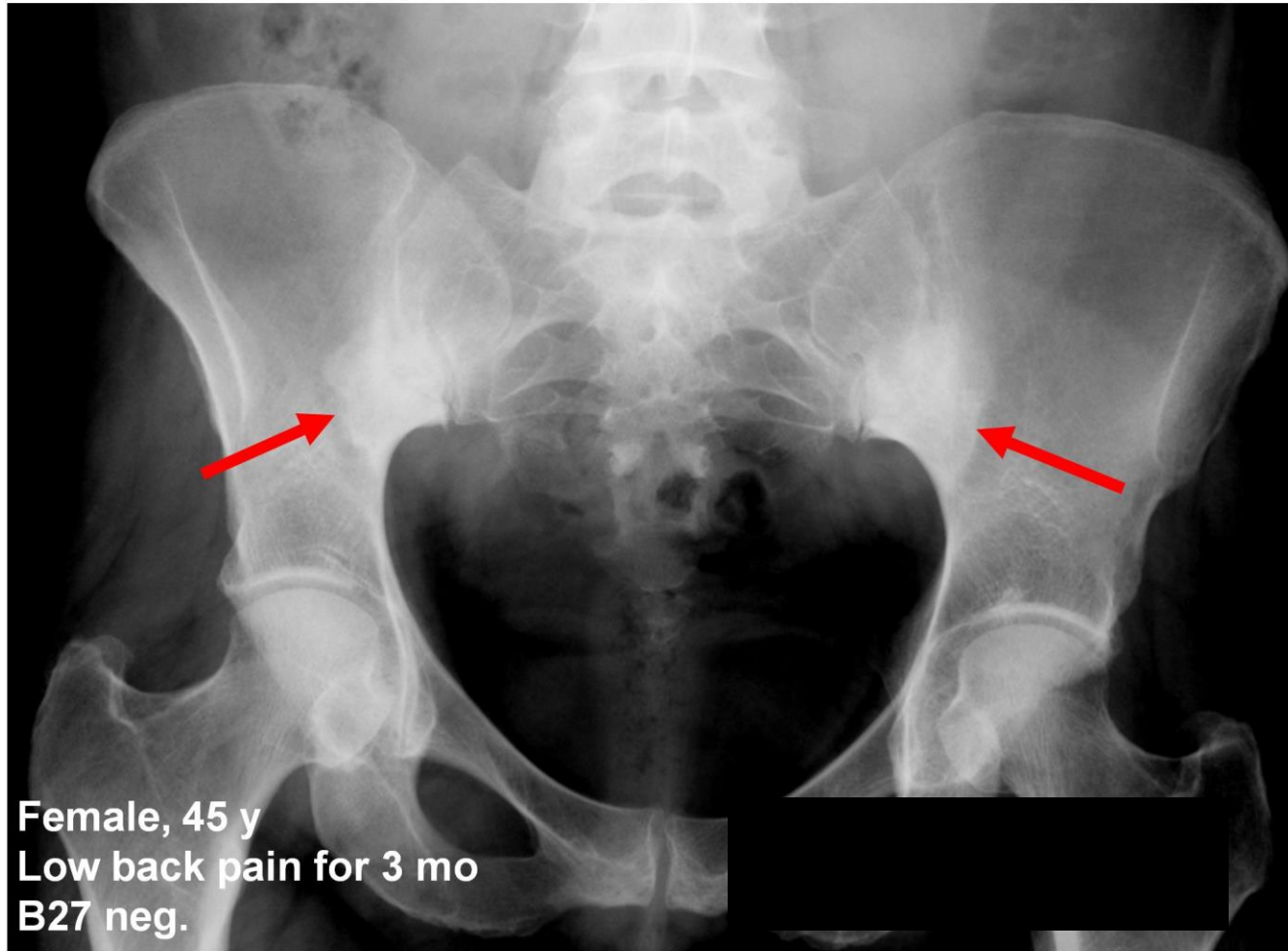
Pincement des interlignes

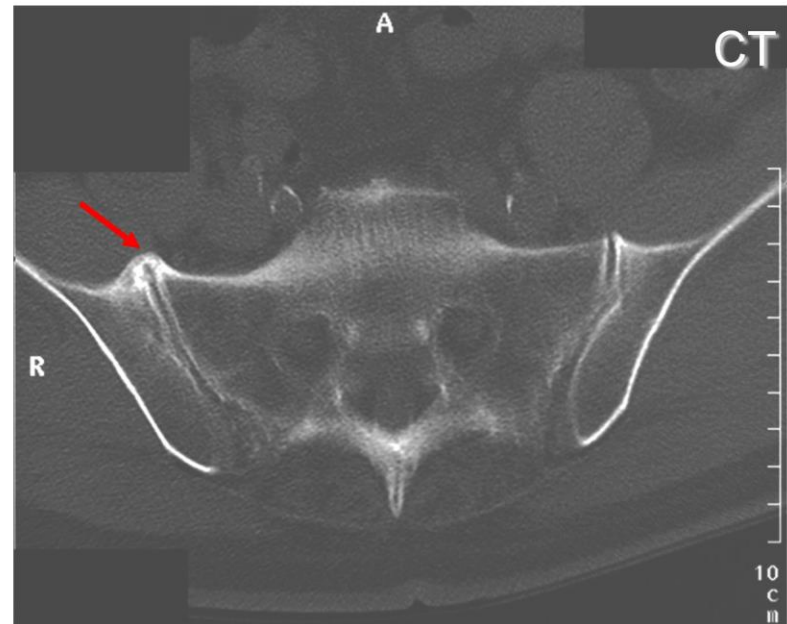
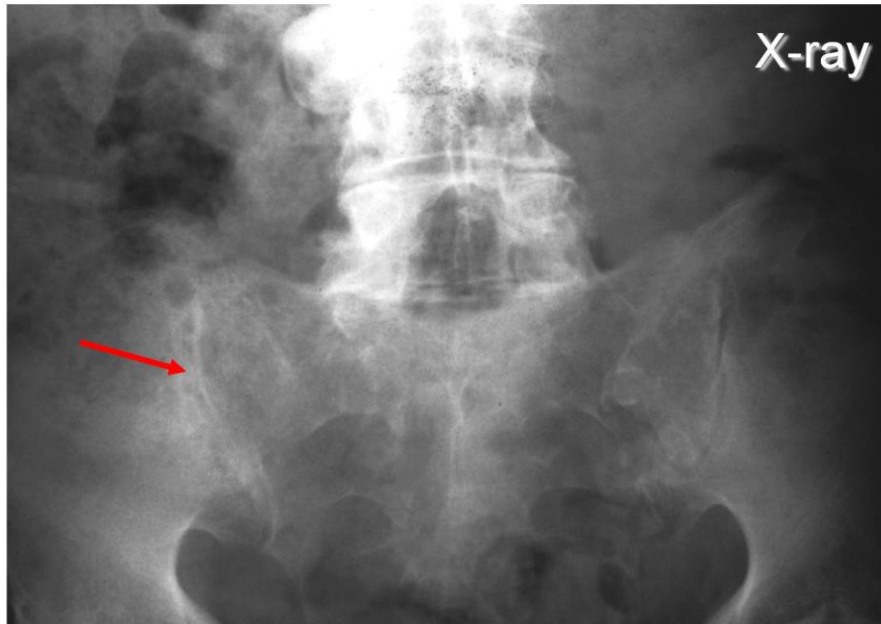
Erosions

Fusion / ankylose



Differential Diagnosis of Sacroiliitis

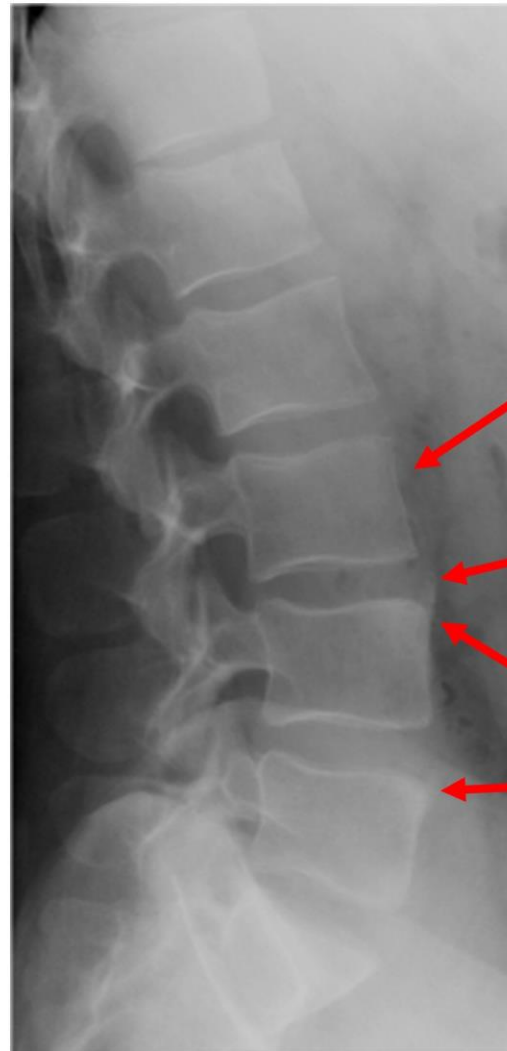




Irregularly shaped right sacroiliac joint with bony bridges mimicking chronic sacroiliitis with partial ankylosis. Ossification of the anterior joint capsule/ligament only, but not the joint, is nicely seen on CT

Typical X-ray Changes of the Spine in Ankylosing Spondylitis

male,
37 years old
AS for 5 years



Squaring

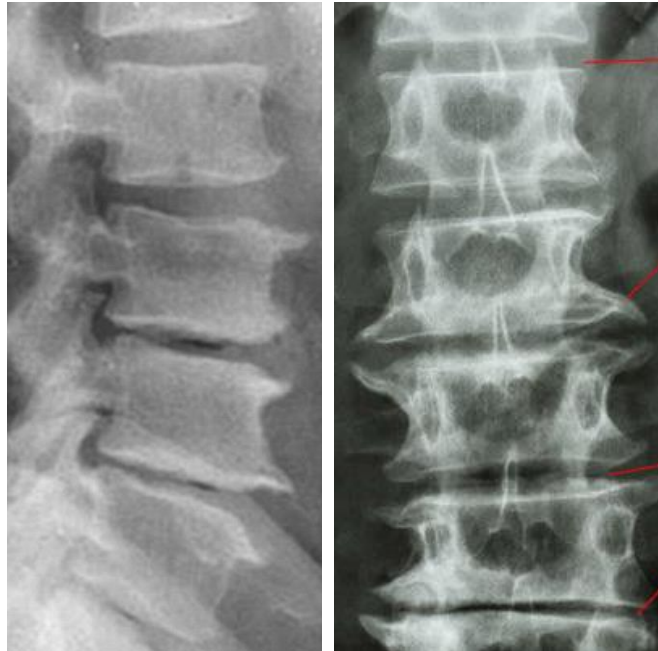
Syndesmophyte

Romanus lesion
"shiny corner"

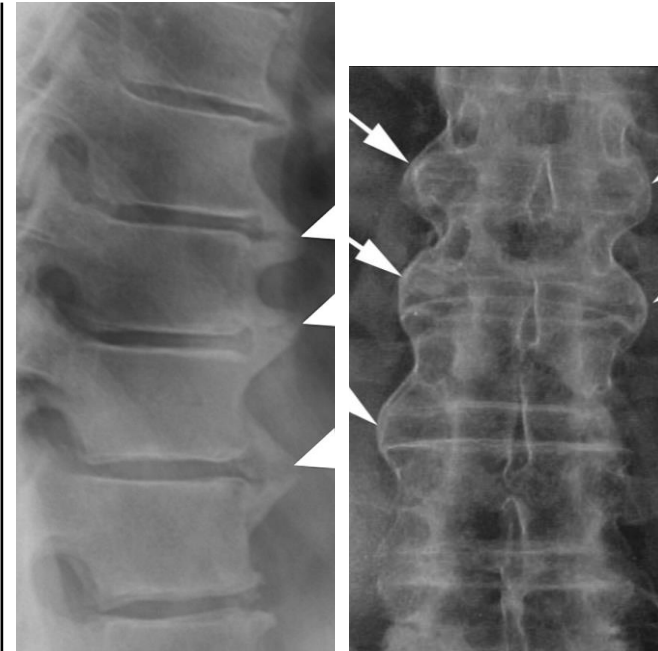
Radiographies du rachis



Spondylarthritis
Syndesmophytes

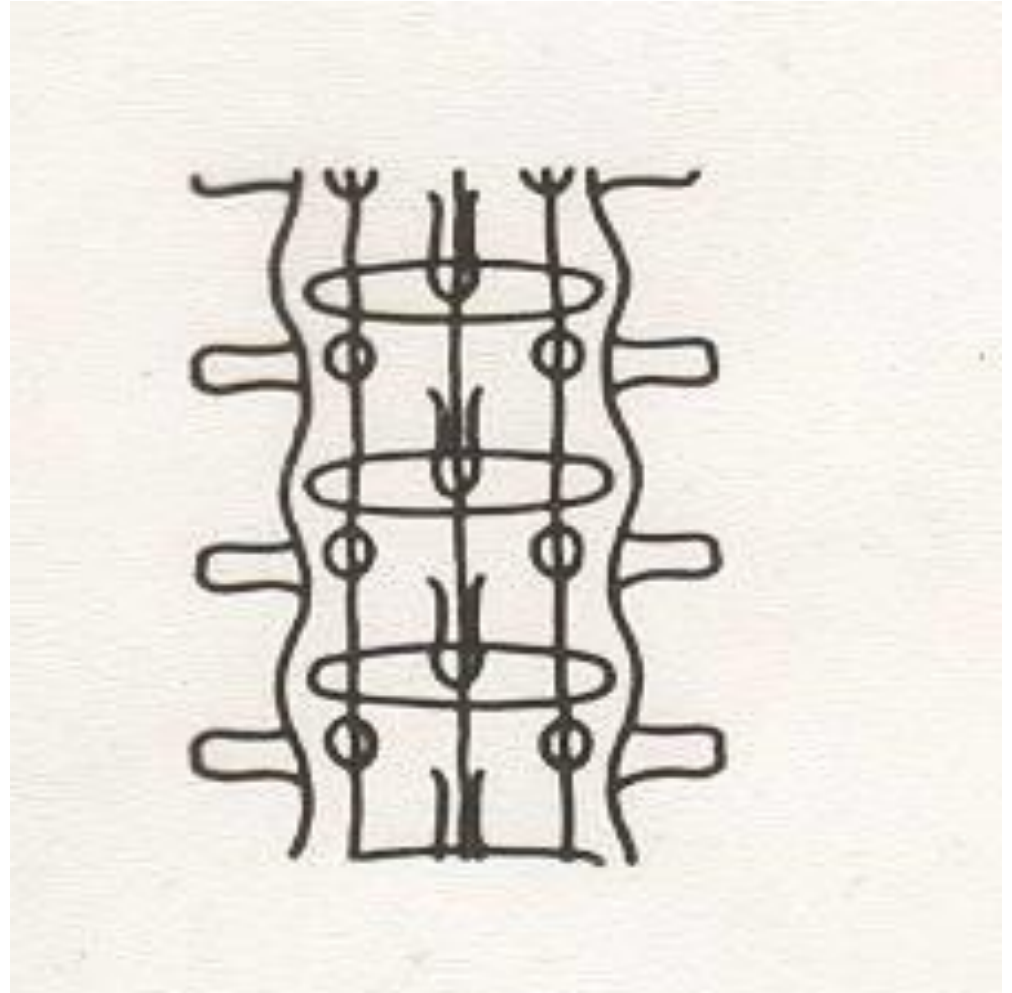


Arthrose
Ostéophytes



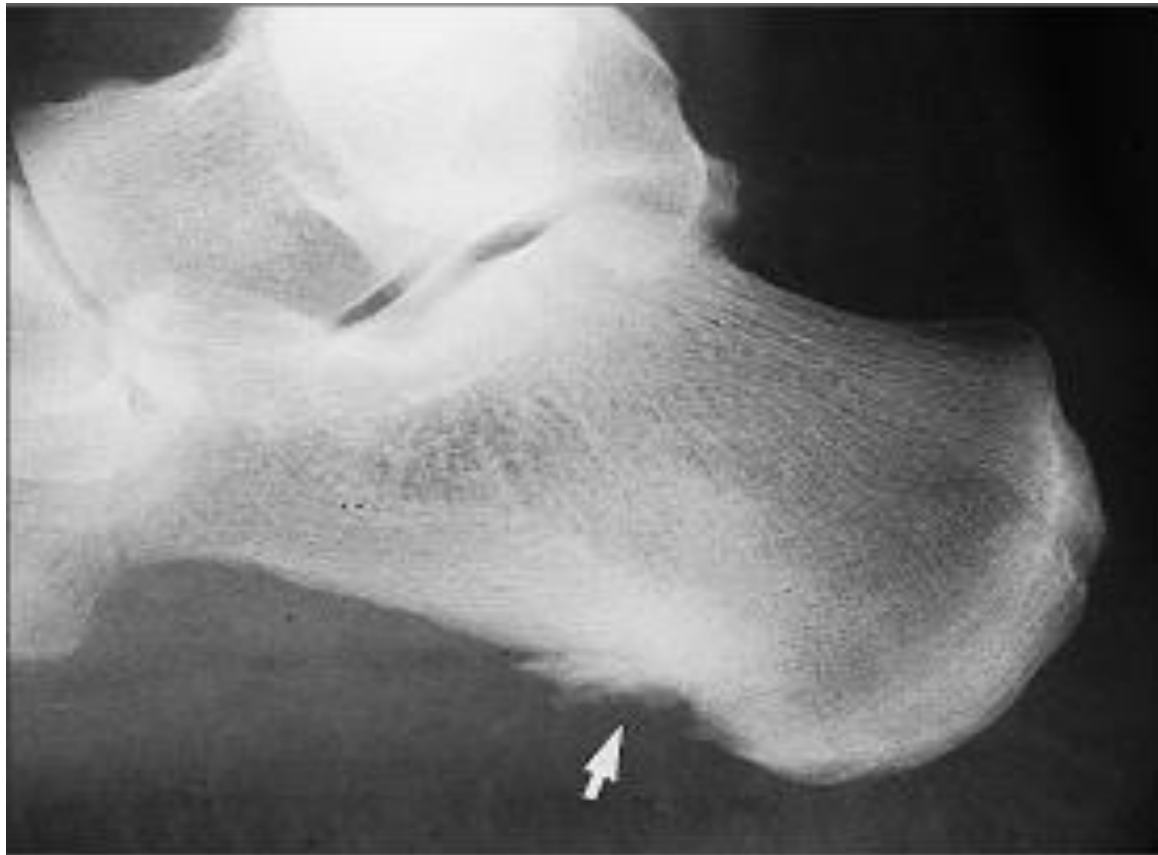
DISH
Para-syndesmophytes
Exubérants
Apparition tardive
D>G
(PsA > axSpA)

Arthrite interapophysaire postérieure : Colonne en 3 rails



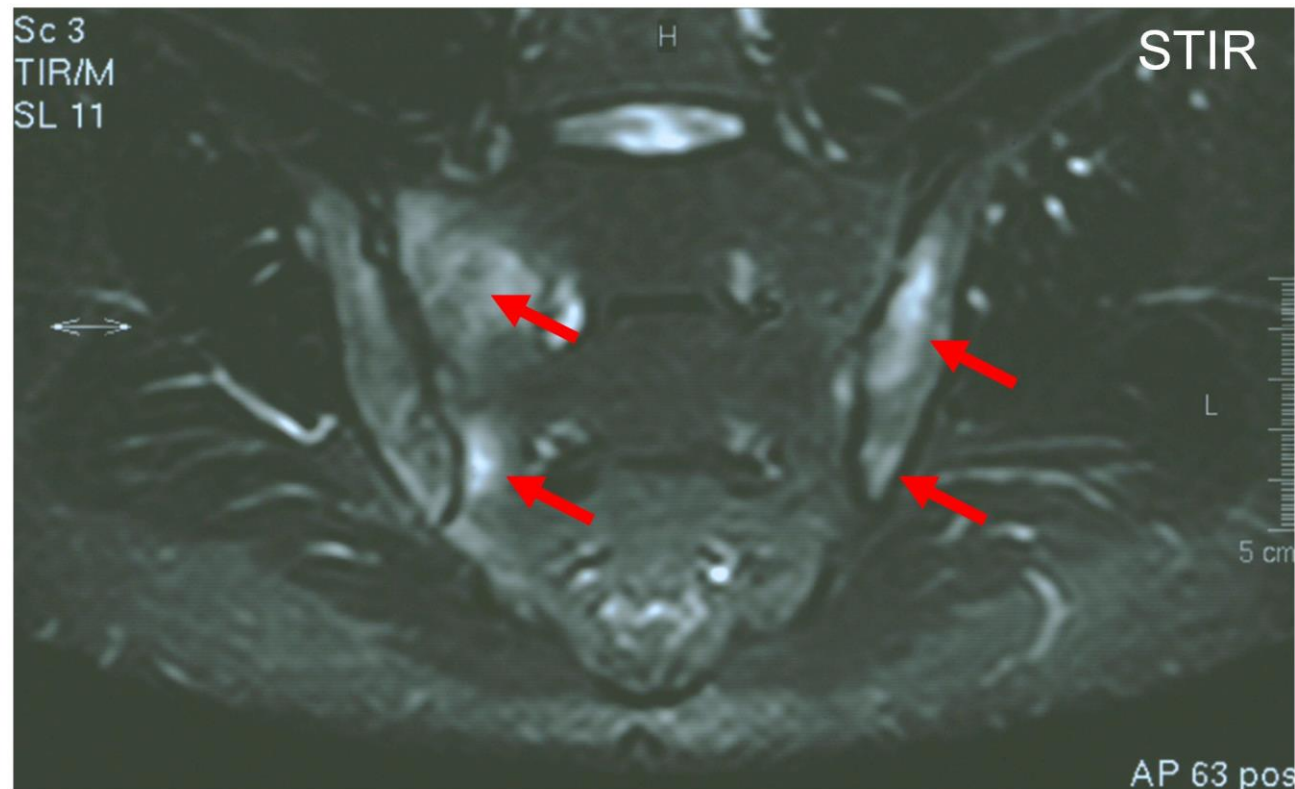
Colonne en 3 rails
ou
Colonne de bambou

Enthésites périphériques



Definition of Positive MRI-SI Joint

- subchondral bone marrow edema
- acute (bilateral) sacroiliitis



Differential Diagnosis and Pitfalls

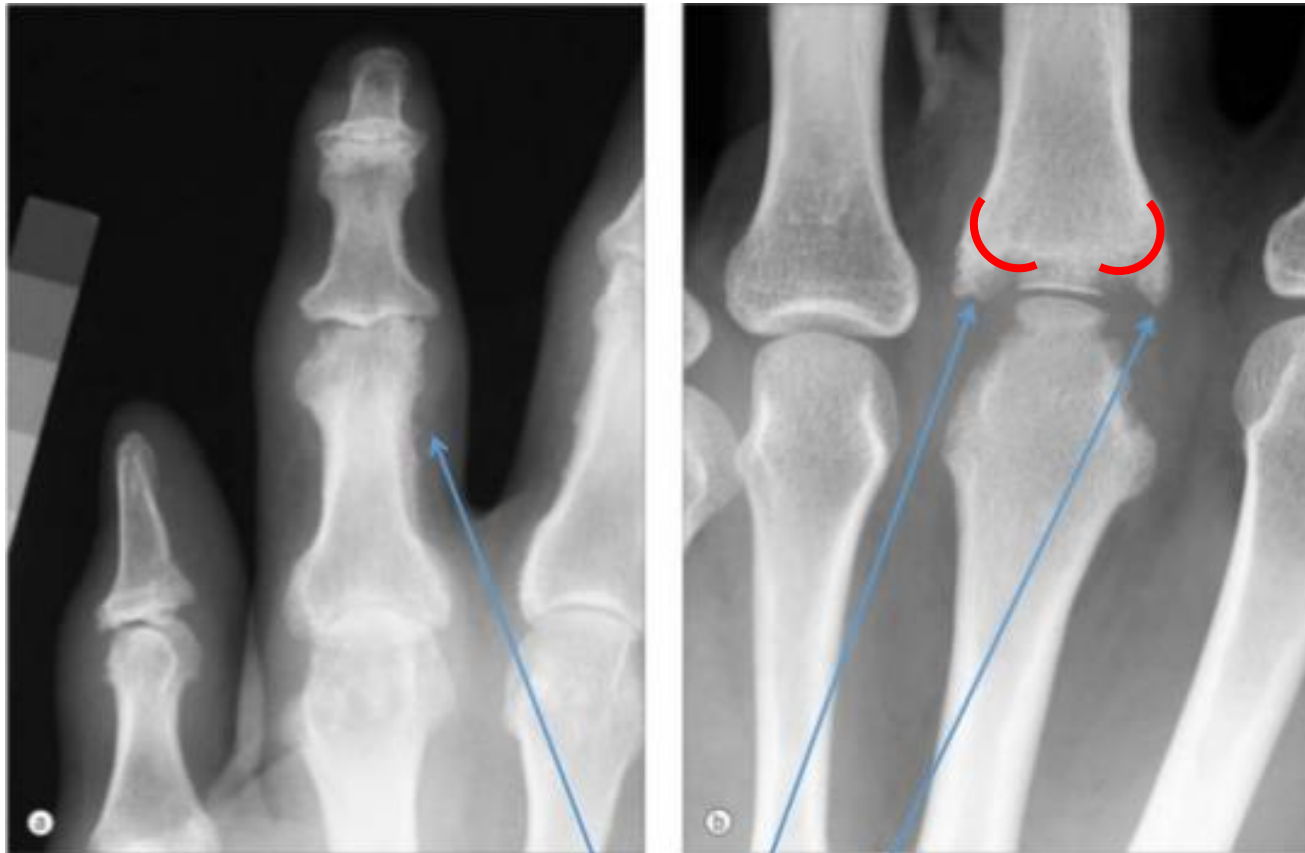
Inflammation of SI joints in SpA is usually limited to the bone/SI joint, and does not cross anatomical borders.



Infectious Sacroiliitis

Inflammation crosses borders (arrows)

Radiographies:



© www.rheumost.com - Hochberg et al (eds)

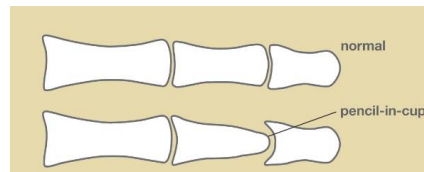
Periosteal reactions

Radiographies:

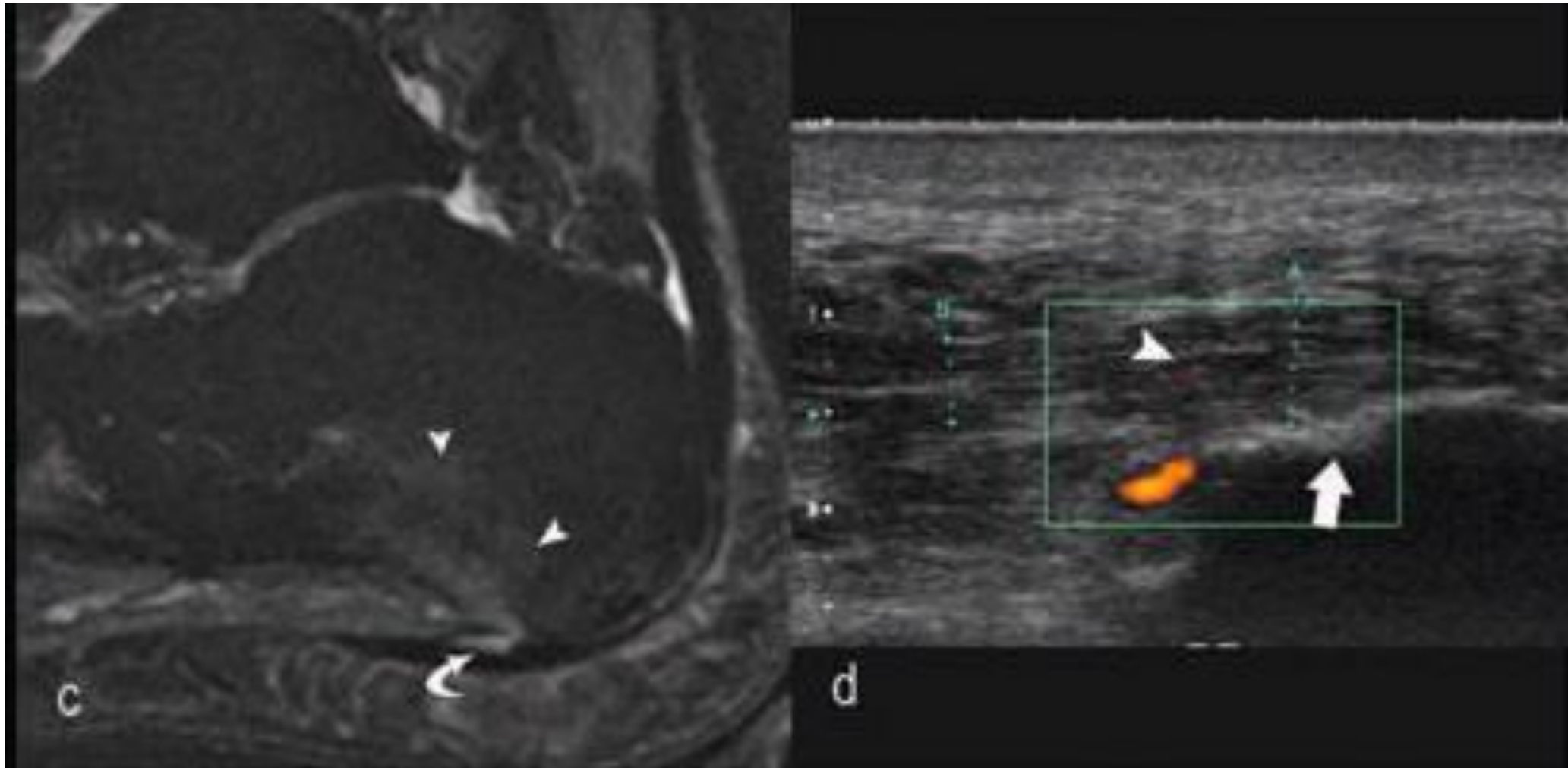
« Pencil-in-cup »



« Ray pattern »



IRM et US-power doppler



STIRw MR sagittal image. Calcaneal inferior bone marrow oedema (arrow head) close to the aponeurosis enthesion, together with thickening and intraaponeurosis high signal area (curved arrow)

PDUS sagittal image. Aponeurosis thickening with loss of fibrillar pattern and Doppler signal (arrow head) are shown associated with bone erosion (arrow)

Feidy, Ann Rheum Dis 2011

Investigations (arthrite réactionnelle)

- Bactéries \Rightarrow inf. entériques
 - Salmonella
 - Shigella
 - Yersinia
 - Campylobacter
 - Clostridium difficile
- Bactéries \Rightarrow inf. urogénitales
 - Chlamydia trachomatis
 - Mycoplasma genitalium
 - Ureaplasma urealyticum
- Bactéries \Rightarrow inf. ORL
 - Streptocoque beta-hémolytique
 - Chlamydia pneumoniae

Morbidité - invalidité



- Variable, potentiellement sévère
 - Atteintes vertébrales souvent sévères
 - +/- atteintes périphériques
 - +/- ostéoporose
 - +/- Fatigue
 - +/- Dépression
 - +/- Manifestations extra-articulaires spécifiques

Mortalité

- **Augmentation de la mortalité !**
 - **CV (athérosclérose)**
 - **Amyloïdose**
 - **Aortite - myocardite**
 - **Alcoolisme, suicides**
 - **Fracture vertébrale**





Spondylarthrites – prise en charge

- Multidisciplinaire !
 - Education thérapeutique
 - Dermatologue, rhumatologue, interniste, gastroentérologue, ophtalmologue, ...
 - Physiothérapeute, ergothérapeute, diététicienne
- Atteinte cutanée
- Atteinte articulaire
- Atteinte extra-articulaire
- Gestion des comorbidités (ex cardiovasc)
- Prise en charge des troubles psychiatriques
- Suivie et réévaluation régulière

Spondylarthrites et AINS

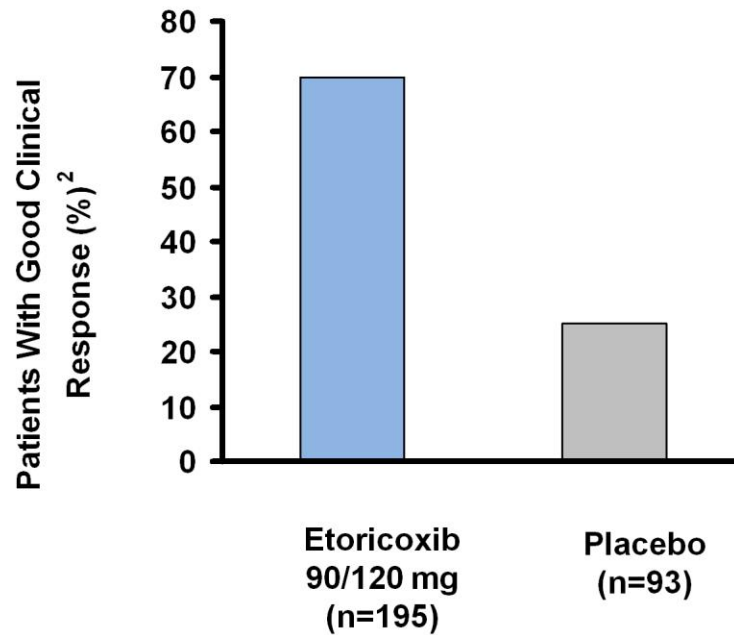
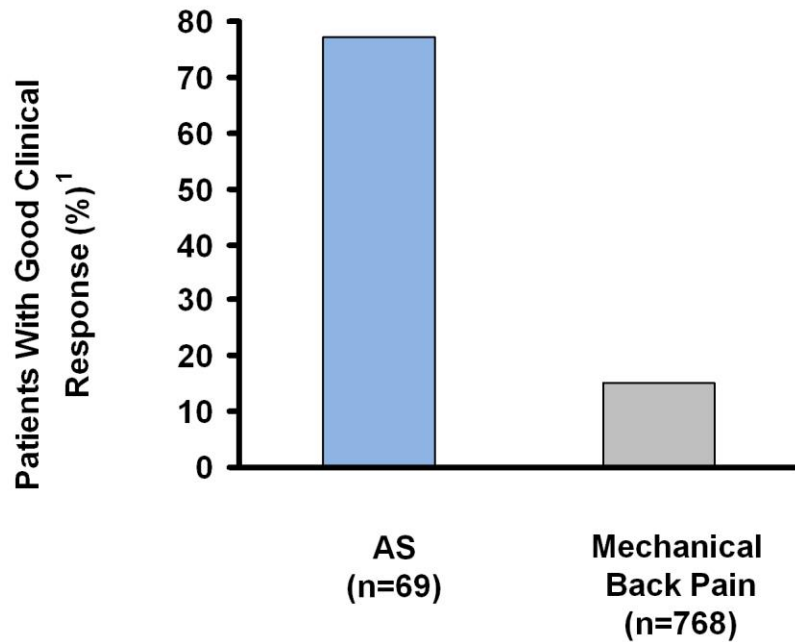
- AINS particulièrement efficaces dans la SpA !!!
 - Critère diagnostic
 - Pas ou peu d'effets significatifs sur l'inflammation déterminée par la CRP ou visualisée à l'IRM
 - Possible effet sur la progression radiologique

Braun, Curr Opin Rheumatol, 2009

Gossec – Dougados, Ann. Rheum. Dis 2006

Wanders – Dougados, Arthr & Rheum, 2006

Efficacy of NSAIDs for the Treatment of Patients with Ankylosing Spondylitis



1. Amor B et al. Rev Rheum Engl Ed 1995;62:10-5
2. van der Heijde D et al. Arthritis Rheum 2005;52:1205-15





Spondylarthrites - traitement

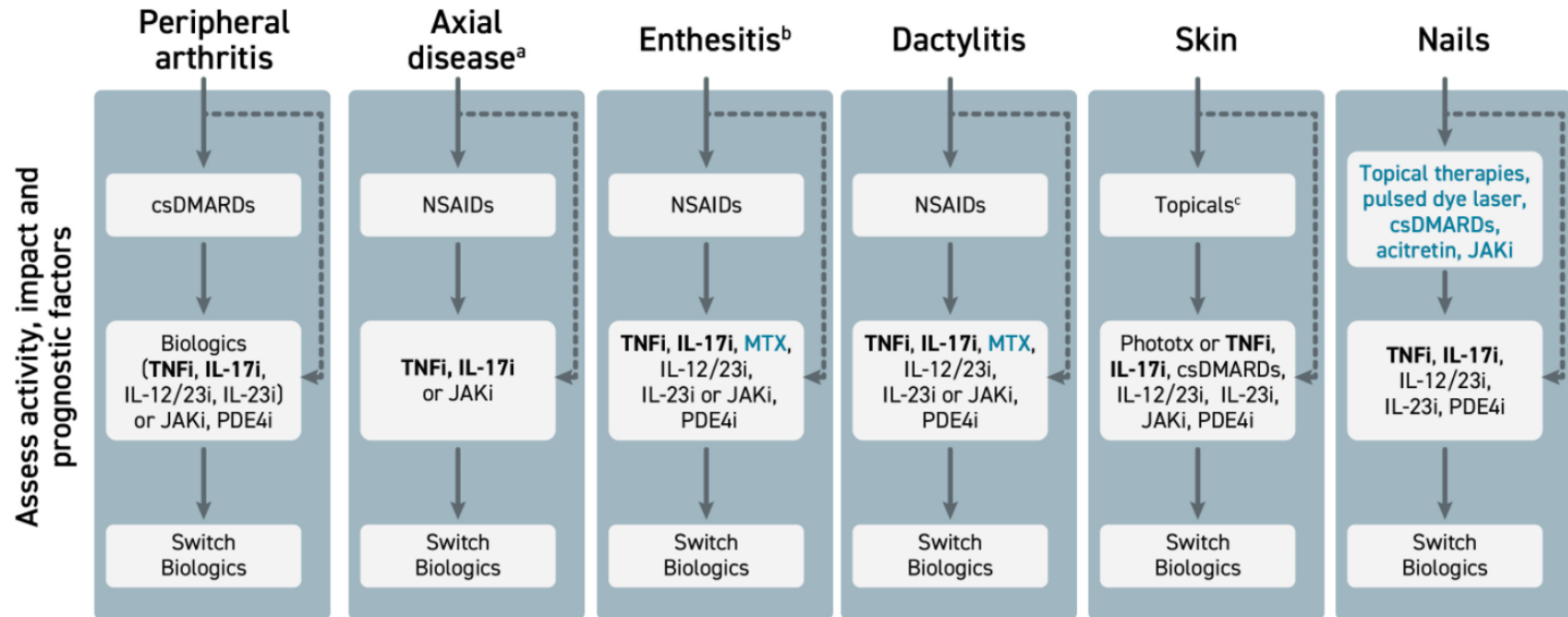
■ Atteinte axiale

1. AINS
2. Physiothérapie
3. csDMARDs ?
4. Petites molécules :
 1. Anti-JAK
5. Biologics :
 1. Anti-TNFs
 2. Anti-IL17

■ Atteintes périphériques

1. Antalgiques, AINS, (Pred)
2. csDMARDs :
 1. Salazopyrine
 2. Méthotrexate
 3. Leflunomide
3. Petites molécules :
 1. Anti-PDE4
 2. Anti-JAK
4. Biologics :
 1. Anti-TNFs
 2. Anti-IL17
 3. Anti-IL12/23

2021 GRAPPA Treatment Recommendations



- Consider which domains are involved, patient preference, previous/concomitant therapies; choice of therapy should address as many domains as possible
- Comorbidities and associated conditions may impact choice of therapy and/or guide monitoring
- Treat, periodically re-evaluate treatment goals and modify therapy as required



Expedited Therapeutic Route



Standard Therapeutic Route

Black text = strong recommendation;
Blue text = conditional recommendation

Colite OU uvéite → TNFi

Atteinte axiale → pas d'IL12/23

	csDMARD	Anti-PDE4	JAKi	TNFi	Anti-IL-17	Anti-IL-12/23	Anti-IL-23
	MTX, LEF, SSZ	Aprémilast	TOFA, UPA, BARI, Deucravacitinib	ADA, IFX, ETN, CER, GOL	SECU, IXE	UST	GUS, RZB
Administration	Voie	orale/SC	orale	orale	SC / IV	SC	SC
	Fréquence	Quotidienne ou hebdomadaire	2×/jour	1–2×/jour	Hebdomadaire à tous les 2 mois	Toutes les 2–4 semaines	Tous les 3 mois
Efficacité	Articulaire	✓✓	✓✓	✓✓✓	✓✓✓	✓✓	✓✓✓
	Cutanée	✓✓ MTX ✓ LEF	✓✓	✓✓✓	✓✓✓	✓✓✓(✓)	✓✓✓✓(✓)
	Enthésites	(✓)	✓	✓✓	✓✓	✓✓(✓)	✓✓
	Dactylites	✓	✓	✓✓	✓✓	✓✓	✓✓
	Colites (MICI)	✓	(✓)	✓ (TOFA RCUH)	✓✓ (sauf ETN)	×	? ✓
	Uvéites	✓ (MTX)	?	?	✓✓ (IFX, ADA)	✓	?
Amélioration de la progression radiologique	Axiale	×	(✓)	✓(✓)	✓✓	×	?
	Axiale	×	?	?	✓	×	?
	Périphérique	× (MTX, SSZ)	?	✓ (ADA)	✓	✓	(✓)
Autre	↑ Fonction (HAQ)	✓ (MTX)	✓	✓✓	✓✓	✓✓	✓✓
	Effets secondaires	✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓✓
	Coût^a (CHF/année)	1000–2,000	12,000	16–25,000	10–25,000	9–18,000	15,000
	Remarques	Précaution avec le MTX en cas de stéatose hépatique.	Prise avec le MTX si C/I aux AINS.	Éviter si TVP, EP, cancer, herpès, hyperlipidémie, >65 ans, ou tabagisme.	Éviter en cas de SEP ou d'ICC sévère. CER si Crohn ou grossesse. GOL si RCUH.	Risque de candidose. Éviter si colite.	Moins efficace pour l'arthrite péri-phérique.
							Meilleur pour les articulations que l'anti-IL-12/23. Pas de risque de candidose.

Arthrites réactives - traitement

- Antibiotiques ?
 - Formes digestifs : non
 - Formes urogénitales – possiblement !
 - Si PCR+ pour chlamydia (sang ou articulaire)
 - Rifampin + doxycycline ou azithromycin
 - Traitements prolongés (6 mois)



Comorbidities dans la SpA

Maladies cardiovasculaires	MICI
Dépression	Syndrome métabolique :
Anxiété	- Obésité
Maladies ophtalmologiques	- Diabète
Atteinte rénale +/- IRC	- Stéatose hépatique (NAFLD)
Ostéoporose	- Gout

Spondylarthrites - conclusions

- Fréquentes (1-2%)
- Manifestations variables – artic, peau, GI, yeux
- Parfois sévères et invalidantes
- Diagnostic :
 - Clinique (<45ans, >3m douleurs inflammatoires)
 - HLA B27+
 - IRM du bassin+
- Traitement :
 - En fonction de l'atteinte axiale ou périphérique
 - En fonction d'une éventuelle origine réactive