Coinvolgimento del rachide nell'Artrite Psoriasica

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Conflitti di interesse

nessuno

Agenda

- Artrite Psoriasica: introduzione
- Il coinvolgimento assiale (epidemiologia e genetica)
- La rachialgia infiammatoria
- Artrite Psoriasica vs. Spondilite Anchilosante (radiodiagnostica)
- Terapia farmacologica

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Artrite Psoriasica

Table 1. Moll and Wright classification of psoriatic arthritis	
Asymmetric oligoarthritis	Involves five or fewer joints usually medium–large joints, for example the wrist and knee
Symmetrical polyarthritis	Symmetrical polyarthritis with predilection for the metacarpophalangeal and proximal interphalangeal joints. Resembles rheumatoid arthritis
Distal interphalangeal arthritis	Affects the distal interphalangeal joints and is often associated with the classic nail changes of pitting and onycholysis (*Figure 2*). Without skin changes, can be difficult to differentiate from osteoarthritis
Spondyloarthropathy	Affects the spine (spondylitis) or sacroiliac joints (sacroiliitis) causing lower back pain. Presentation is similar to ankylosing spondylitis but it can usually be differentiated from the latter by the later age of onset and presence of psoriasis
Arthritis mutilans	The most severe form of psoriatic arthritis in which extensive bone destruction and remodelling results in extreme deformities and loss of function
From Moll and Wright (1973)	

Artrite Psoriasica

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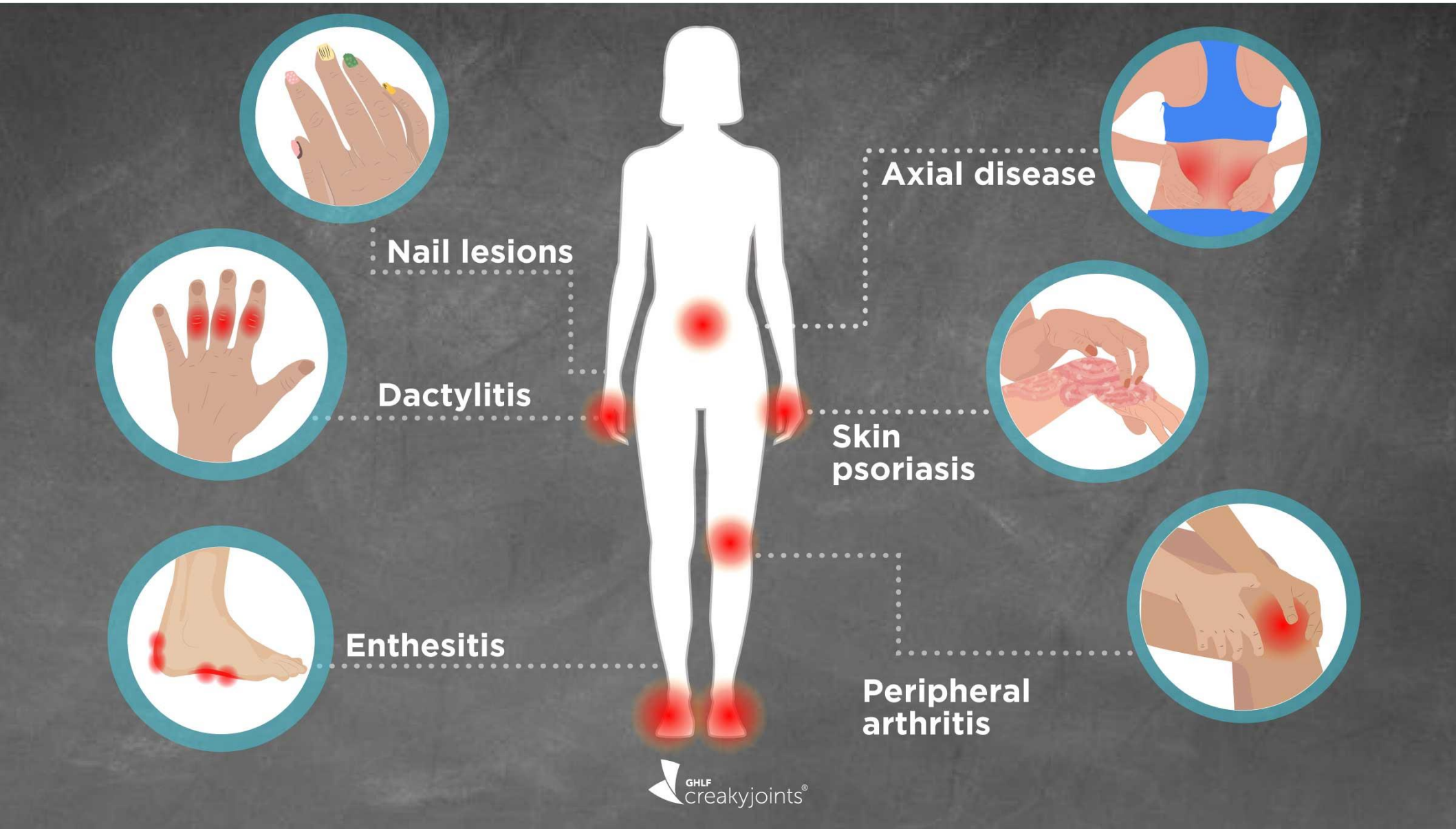
From Moll and Wright (1973)	

Malattia Psoriasica



Crediti: https://creakyjoints.org/

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Epidemiologia

- Prevalenza: 20-70% a seconda delle casistiche
- Solo 2-5% assiale isolato
- Spesso asintomatico (20-40%)
- Associato a malattia più severa, uveiti, IBD
- Simile prevalenza in maschi e femmine

DD Gladman Curr Rheumatol Rep. 2021
D Poddubnyy et al. Semin Arthritis Rheum. 2021

Definizioni di coinvolgimento assiale

Table 1
Variations for classification of axial PsA in studies.

Study	Classification
MAXIMIZE[34,35] Secukinumab clinical trial of 498 patients with axial PsA with inadequate response to NSAIDs	Diagnosis of PsA classified by CASPAR criteria, BASDAI ≥ 4, and spinal pain VAS ≥ 40
DISCOVER-1 and −2[36] Post hoc exploratory analysis of guselkumab clinical trials of 381 patients with active PsA in DISCOVER-1 and 739 in DISCOVER-2	Active PsA (DISCOVER-1: ≥ 3 swollen joints, ≥ 3 tender joints, CRP ≥ 0.3 mg/dL despite standard therapies; DISCOVER-2: ≥ 5 swollen joints, ≥ 5 tender joints, CRP ≥ 0.6 mg/dL despite standard therapies) with current or past sacroiliitis on imaging as judged by local investigator
Axial disease in psoriatic arthritis study[37] Single-center study of 201 patients with PsA and 201 patients with AS	Diagnosis of PsA classified by CASPAR criteria, diagnosis of psoriasis (past/present), and radiographic sacroiliitis (as per modified New York criteria for AS)
Aydin et al[18] Registry study of 1186 patients with PsA (PsART)	Presence of inflammatory back pain; no specific imaging requirements
Mease et al[19] Registry study of 1530 patients with PsA (Corrona PsA/SpA Registry)	Presence of spinal involvement based on clinical features thought to be representative of active inflammatory spondylitis and/or radiographs or MRI showing sacroiliitis
Ogdie et al[38] Registry study of 3393 patients with PsA (Corrona PsA/SpA Registry)	Investigator defined based on clinical assessment, imaging, and laboratory workup
Ibrahim et al[39] Radiographs from 105 patients with axial PsA (University of Toronto PsA clinic)	Diagnosis of PsA classified by CASPAR and axial PsA, defined as grade ≥ 2 unilateral sacroiliitis and inflammatory back pain or restricted spine mobility
Chandran et al[15] Single-center study of 50 patients with axial PsA (University of Toronto PsA clinic)	Diagnosis of psoriasis, grade ≥ 2 bilateral sacroiliitis or grade ≥ 3 unilateral sacroiliitis
Yap et al[40] Single-center study of 171 patients with PsA (University of Toronto PsA clinic)	Diagnosis if PsA classified by CASPAR, electronically determined if patient satisfied each criteria set for inflammatory back pain (Calin, Rudwaleit, and ASAS criteria for inflammatory back pain), have axial radiographic abnormalities with and without back pain, including grade ≥ 2 unilateral sacroiliitis or syndesmophytes
Feld et al[11] Retrospective analysis of a prospective cohort of 1354 patients with PsA (University of Toronto PsA clinic)	Defined axial PsA as the highest sacroiliitis grade scored across radiographs available per patient; assessed 3 definitions of sacroiliitis: 1. unilateral grade ≥ 2 sacroiliitis, 2. the mNY AS radiographic criteria: bilateral grade ≥ 2 sacroiliitis or unilateral grade 3 or 4, and 3. the mNY AS radiographic and clinical arm criteria: back pain or limitation of lumbar spine in sagittal and frontal planes or limitation of chest expansion; spinal limitation was defined as Schober ≤ 4 cm, lateral flexion ≤ 10 cm, or chest expansion < 5 cm
Haroon et al[41] Single-center study of 407 patients with PsA	Presence of bone marrow edema on MRI of sacroiliac joints, inflammatory back pain according to the ASAS definition, with spinal pain score ≥ 4 and BASDAI ≥ 4 despite taking NSAIDs
Fernandez-Sueiro et al[42] Single-center study of 54 patients with peripheral PsA and 46 patients with axial PsA	Diagnosis of PsA classified by CASPAR and axial PsA defined as grade ≥ 2 unilateral sacroiliitis and inflammatory back pain and back stiffness
Queiro and Cañete[43] Medical records of 70 patients with psoriasis and radiographic signs of SpA	Defined by the ASAS classification criteria for axSpA

D Poddubnyy et al. Semin Arthritis Rheum. 2021

Fattori di rischio di sviluppare forma assiale

- Interessamento periferico severo
- Presenza di danno radiologico su articolazioni periferiche
- Indici di flogosi elevati
- Onicopatia psoriasica
- Lunga durata di malattia
- HLA B27 positività

LL Grinnell-Merrick et al. Rheumatol Ther. 2020
D Poddubnyy et al. Semin Arthritis Rheum. 2021

Genetica

- HLA B27 positivo nel 43,7% vs 19,1% forme non assiali vs 90% Spondilite Anchilosante (SAN)
- Associazione con HLA B08 e HLA B38 dell'Artrite Psoriasica assiale (ax-PSA), ma non in SAN.
- HLA B08 si associa a forme meno severe, caratterizzate da sacroileite asimmetrica

D Poddubnyy et al. Semin Arthritis Rheum. 2021

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Criteri Rachialgia Infiammatoria (IBP)

Calin Criteria	Berlin Criteria	ASAS Criteria
Age at onset < 40 yrs	Morning stiffness > 30 min	Age at onset < 40 yrs
Duration of back pain > 3 mos	Improvement with exercise, not with rest	Insidious onset
Insidious onset	Awakening at second half of the night because of pain	Improvement with exercise
Morning stiffness	Alternating buttock pain	No improvement with rest
Improvement with exercise		Pain at night (with improvement upon getting up)
IBP if 4/5 are present	IBP if 2/4 are present	IBP if 4/5 are present

ASAS: Assessment of SpondyloArthritis International Society; IBP: inflammatory back pain.

Diagnosi differenziale con “dolore meccanico”

MBP (injury to or derangement of spine structures or rheumatologic, vascular, gastrointestinal, renal, infectious, or oncologic causes) [27, 48]

Identification of symptoms (no clear evidence about which are clinically relevant)

- Onset at any age; may be more common in middle-aged, working individuals
- Variable onset; may be acute
- Pain may worsen with movement
- Pain often improves with rest

Physical examination involving patient history, such as an acute injury

- This process can involve ruling out IBP along with other causes of back pain (e.g., malignancies, infection)

LL Grinnell-Merrick et al. Rheumatol Ther. 2020

Concordanza tra criteri IPB e ax-PSA

Se consideriamo una **definizione di ax-PSA basata sulla radiologia** (Rx e/o RMN) la rachialgia infiammatoria ha una **scarsa sensibilità (33-46%)**, ma una buona specificità(73-83%) nell'individuare i pazienti affetti da ax-PSA.

Se invece consideriamo solo le **forme clinicamente attive** di ax-PSA, definite tramite clinimetria la rachialgia infiammatoria ha un'**ottima sensibilità (82%) e specificità (88%).**

DD Gladman Curr Rheumatol Rep. 2021

Come valuto l’attività del coinvolgimento del rachide nell’Artrite Psoriasica?

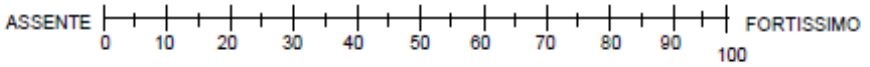
Bath Ankylosing Spondylitis Disease Activity Index (BASDAI)

Garrett S, Jenkinson T, Kennedy G, Whitelock H, Gaisford P, Calin A. A new approach to defining disease status in ankylosing spondylitis: the Bath Ankylosing Spondylitis Activity Index. J Rheumatol 1994; 21: 2286-91.

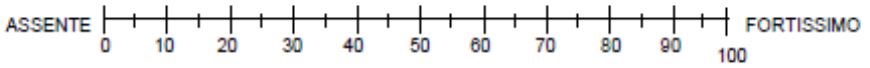
Vorremmo che Lei rispondesse a ciascuna domanda indicando la risposta con una crocetta sulla linea graduata da 0 a 100.

Tutte le domande si riferiscono a come si è sentito nell'ultima settimana

1. Come indicherebbe il grado di stanchezza e/o di affaticamento

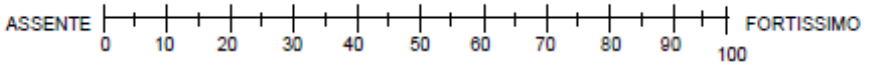


2. Come indicherebbe il grado di dolore che ha provato a livello del collo, della schiena e delle anche

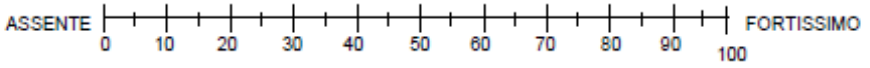


CUT-OFF ≥ 4

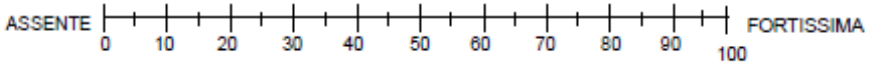
3. Come indicherebbe il grado di dolore che ha provato a livello delle altre articolazioni (escluse il collo, la schiena e le anche)



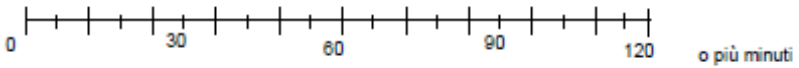
4. Come indicherebbe il fastidio che lei prova nei punti che risultano dolorosi al contatto o alla pressione



5. Come indicherebbe l'intensità della rigidità che Lei prova al risveglio



6. Qual è la durata della rigidità che Lei prova al risveglio (espressa in minuti)



Quick ASDAS-CRP Calculation Form

Name : _____ **Date :** ____ /____ /_____

1) How would you describe the overall level of AS neck, back or hip pain you have had?

0 1 2 3 4 5 6 7 8 9 10

None — Very severe

2) How long does your morning stiffness last from the time you wake up?

0 1 2 3 4 5 6 7 8 9 10

0 — 1 — 2 or more hours

3) How active was your spondylitis on average during the last week?

0 1 2 3 4 5 6 7 8 9 10

Not active — Very active

4) How would you describe the overall level of pain/swelling in joints other than neck, back or hips you have had?

0 1 2 3 4 5 6 7 8 9 10

None — Very severe

5) C-reactive protein (mg/L)?

[ ]

Limiti della clinimetria

1) influenzati dalla valutazione soggettiva del paziente

2) influenzati dall'attività di malattia a livello periferico

Non solo dolore..

Table 3. Baseline patient-reported outcomes. Values are mean ± SD or n (%).

Characteristics*	Overall, n = 1530	With Axial Involvement, n = 192	Without Axial Involvement, n = 1338	p
Patient pain, VAS 0–100	37.6 ± 29.3	47.7 ± 29.1	36.2 ± 29.1	< 0.001
Patient-reported fatigue, VAS 0–100	40.0 ± 29.5	50.2 ± 29.6	38.6 ± 29.2	< 0.001
Morning stiffness				< 0.001
Yes	1301 (88.6)	173 (93.5)	1128 (87.9)	
< 30 min	375 (28.8)	29 (16.8)	346 (30.7)	
> 30 min	926 (71.2)	144 (83.2)	782 (69.3)	
HAQ, 0–3	0.6 ± 0.6	0.9 ± 0.7	0.6 ± 0.6	< 0.001
HAQ-S, 0–3	0.6 ± 0.7	0.9 ± 0.7	0.6 ± 0.6	< 0.001
EQ VAS, 0–100	72.3 ± 21.3	65.3 ± 22.0	73.3 ± 21.0	< 0.001
WPAI, % impairment				
Work time missed	4.0 ± 14.6	10.0 ± 23.4	3.3 ± 13.0	< 0.001
Impairment while working	16.7 ± 21.7	29.5 ± 27.6	15.0 ± 20.2	< 0.001
Overall work impairment	18.5 ± 23.6	32.3 ± 29.7	16.8 ± 22.1	< 0.001
Activity impairment	20.4 ± 24.3	37.0 ± 29.8	18.1 ± 22.5	< 0.001
Current employment	911 (62.1)	103 (55.1)	808 (63.2)	0.03

* All values were calculated based on available data. All variables had < 20% missing data except for WPAI (n, range 689–837). EQ VAS: EQ-5D visual analog scale; HAQ: Health Assessment Questionnaire; HAQ-S: HAQ for Spondyloarthropathies; VAS: visual analog scale; WPAI: Work Productivity and Activity Impairment questionnaire.

Corrona
data to empower

Mease PJ et al. J Rheumatol. 2018

Non solo dolore..

Table 4. Baseline EQ-5D-3L domains for patients with psoriatic arthritis. Values are n (%) unless otherwise specified.

Characteristics*	Overall, n = 1530	With Axial Involvement, n = 192	Without Axial Involvement, n = 1338	p
EQ-5D-3L index, mean ± SD	0.8 ± 0.2	0.7 ± 0.2	0.8 ± 0.2	< 0.001
Walking about				0.003
No problems	868 (58.1)	88 (47.3)	780 (59.6)	
Some problems	622 (41.6)	97 (52.2)	525 (40.1)	
Confined to bed	4 (0.3)	1 (0.5)	3 (0.2)	
Self-care				0.003
No problems	1184 (81.8)	129 (72.5)	1055 (83.1)	
Some problems washing or dressing	258 (17.8)	48 (27.0)	210 (16.5)	
Unable to wash or dress self	6 (0.4)	1 (0.6)	5 (0.4)	
Usual activities				< 0.001
No problems	750 (50.7)	66 (35.5)	684 (52.9)	
Some problems	671 (45.4)	107 (57.5)	564 (43.6)	
Unable to perform usual activities	58 (3.9)	13 (7.0)	45 (3.5)	
Pain/discomfort				< 0.001
No pain or discomfort	331 (22.4)	24 (13.0)	307 (23.8)	
Moderate pain or discomfort	1007 (68.3)	132 (71.7)	875 (67.8)	
Extreme pain or discomfort	137 (9.3)	28 (15.2)	109 (8.4)	
Feeling anxious/depressed				< 0.001
Not anxious or depressed	977 (65.7)	96 (51.6)	881 (67.8)	
Moderately anxious or depressed	467 (31.4)	81 (43.5)	386 (29.7)	
Extremely anxious or depressed	42 (2.8)	9 (4.8)	33 (2.5)	

* All values were calculated based on available data and had < 20% missing data. EQ-5D-3L: 3-level EQ-5D questionnaire.

Corrona
data to empower

Mease PJ et al. J Rheumatol. 2018

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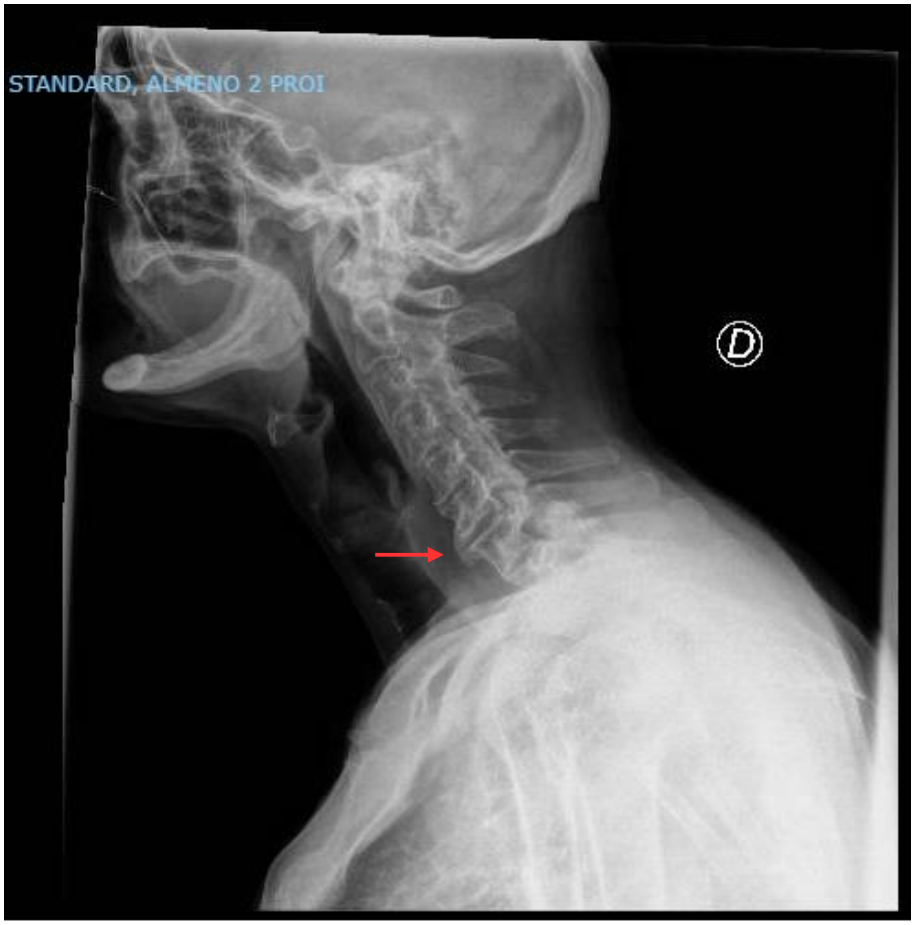
Radiologia tradizionale

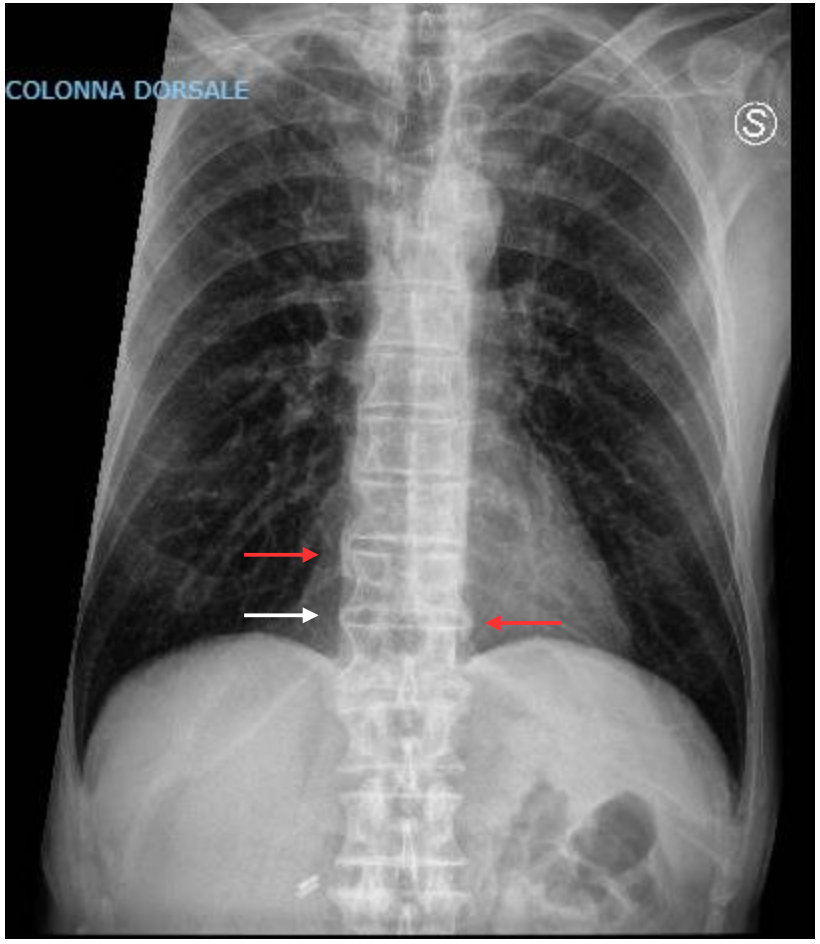
RX

Artrite Psoriasica



- Interessamento frequente del rachide cervicale
- Parasindesmofiti grossolani, spesso isolati

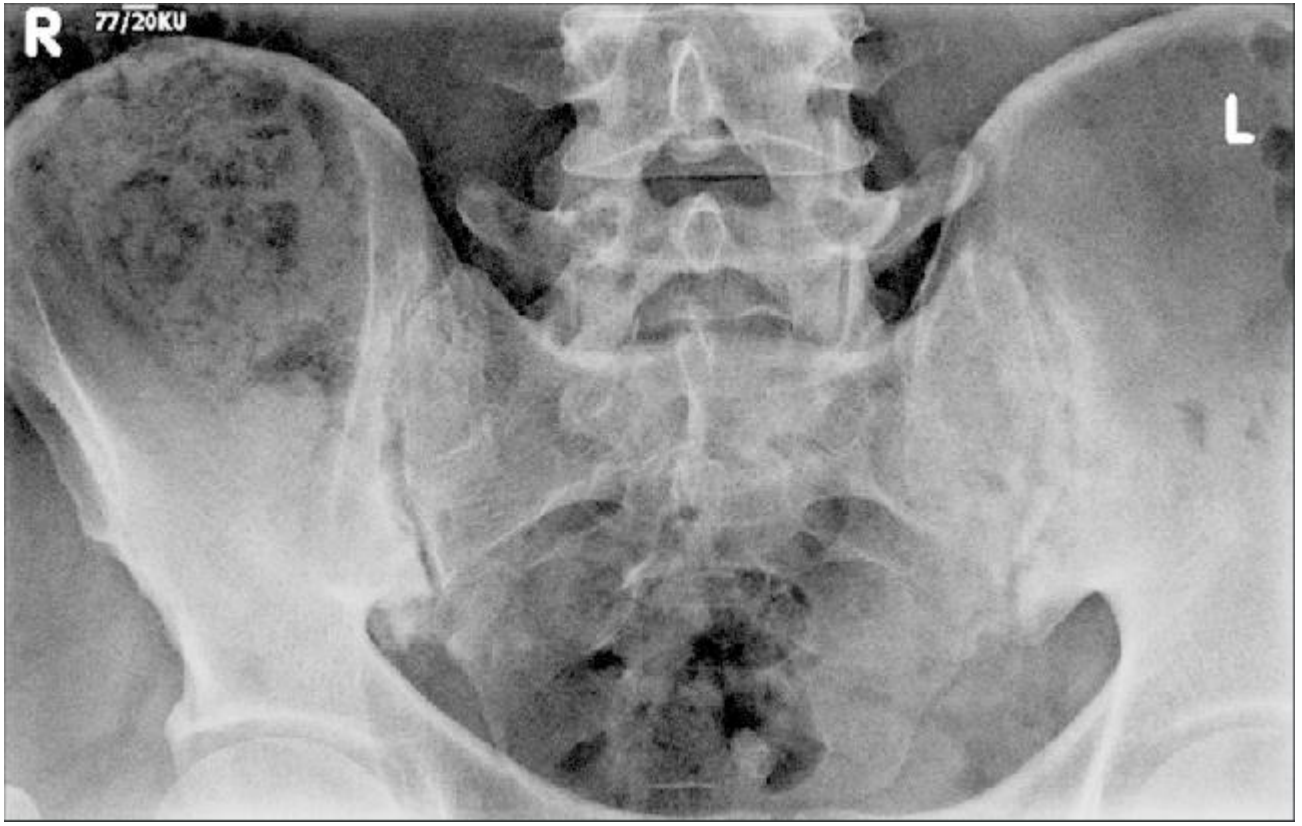
Artrite Psoriasica



- Interessamento del rachide dorsale con relativo risparmio del rachide lombare

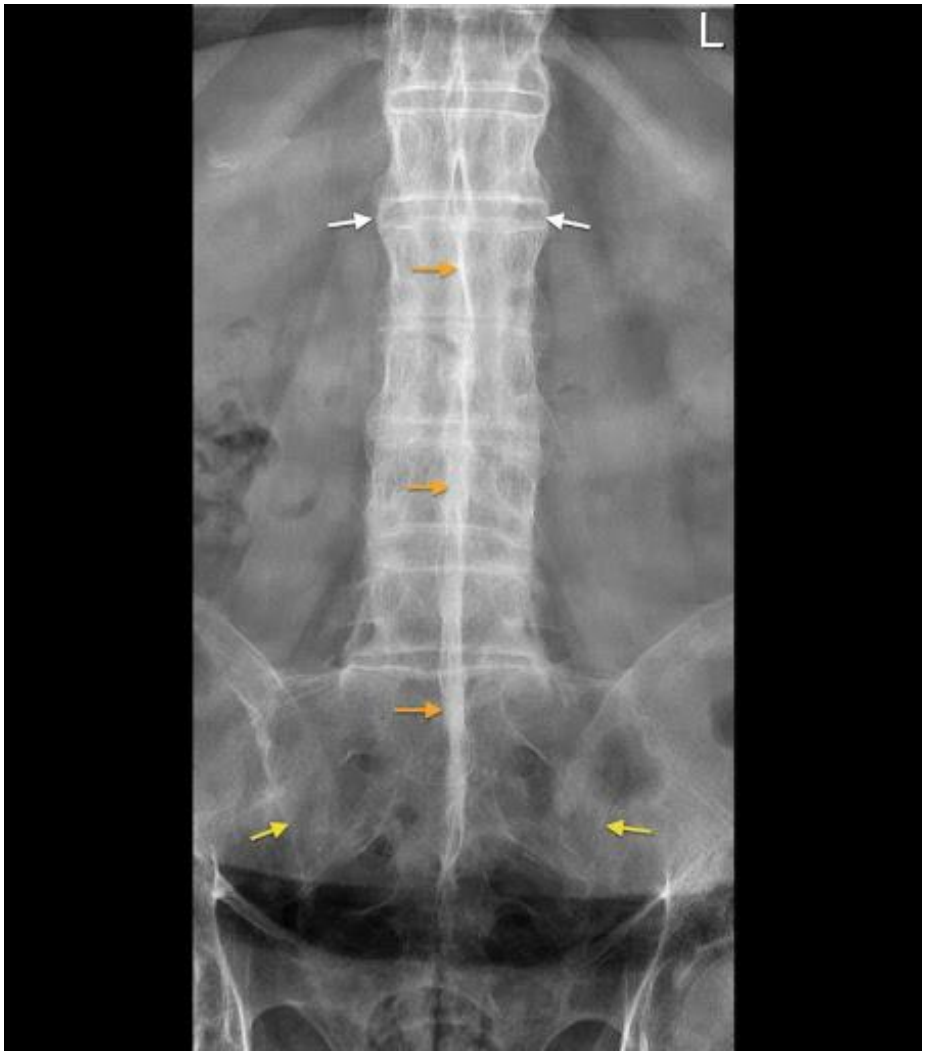
- Parasindesmofiti asimmetrici

Artrite Psoriasica



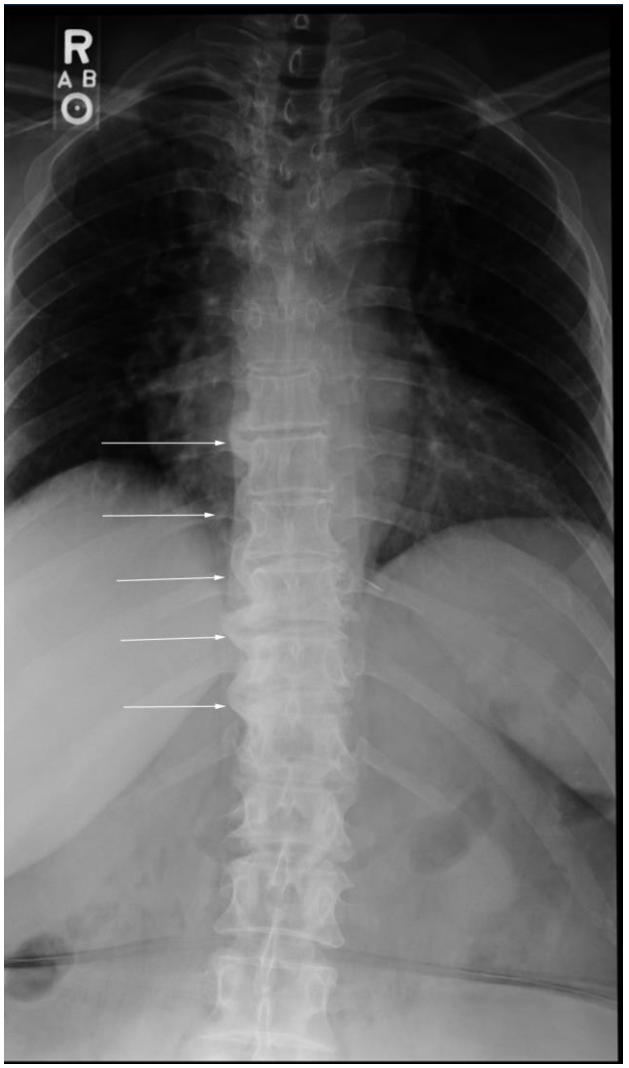
- Sacroileite asimmetrica
- Raramente risparmiate

Spondilite Anchilosante



- Interessamento ascendente
- Sindesmofiti simmetrici con evoluzione a canna di bambù
- Segno del binario a cremagliera
- Sacroileite bilaterale con evoluzione in anchilosi

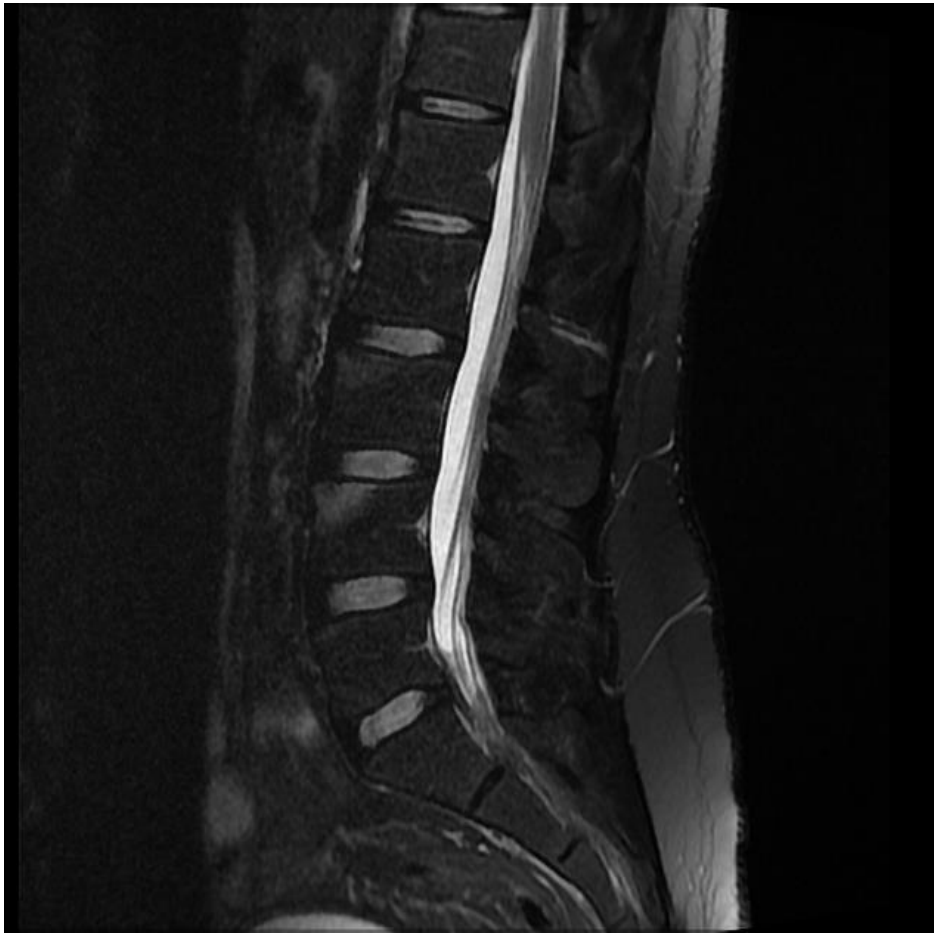
DISH



- Interessamento prevalente dorsale con più metameri consecutivi coinvolti.
- Ossificazione grossolana e monolaterale (a destra)
- Non coinvolgimento delle articolazioni sacroiliache

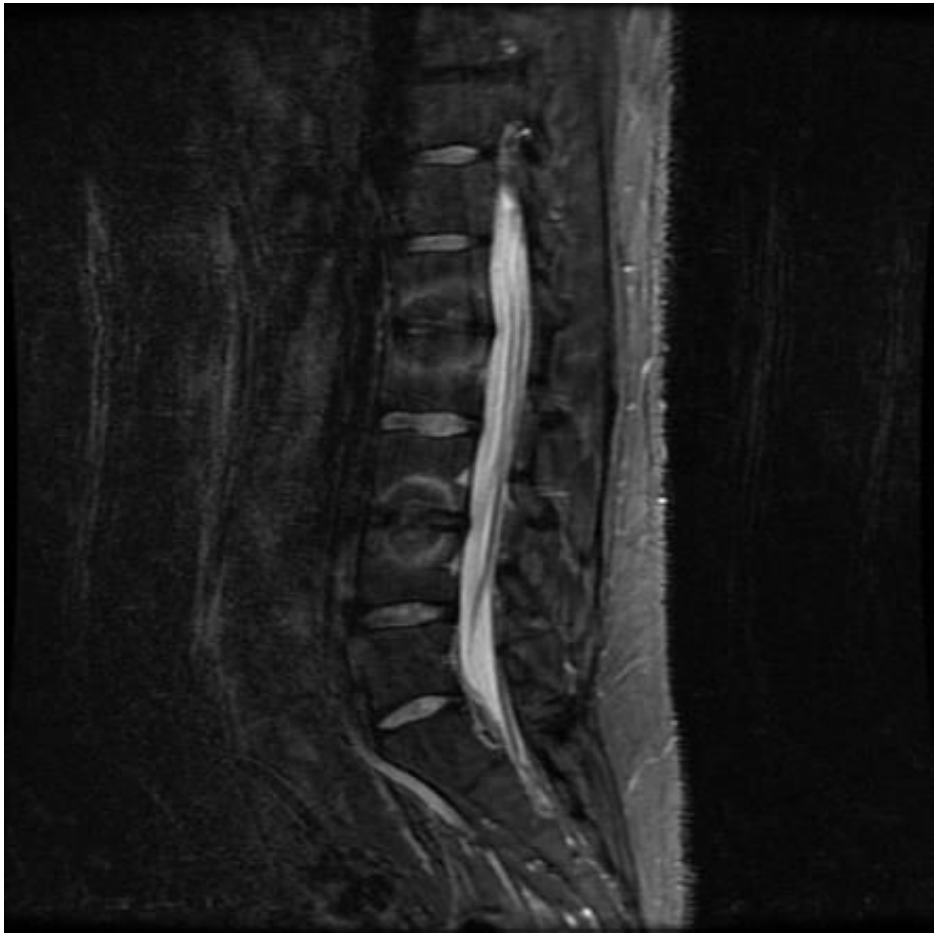
Risonanza Magnetica

Lesioni infiammatorie



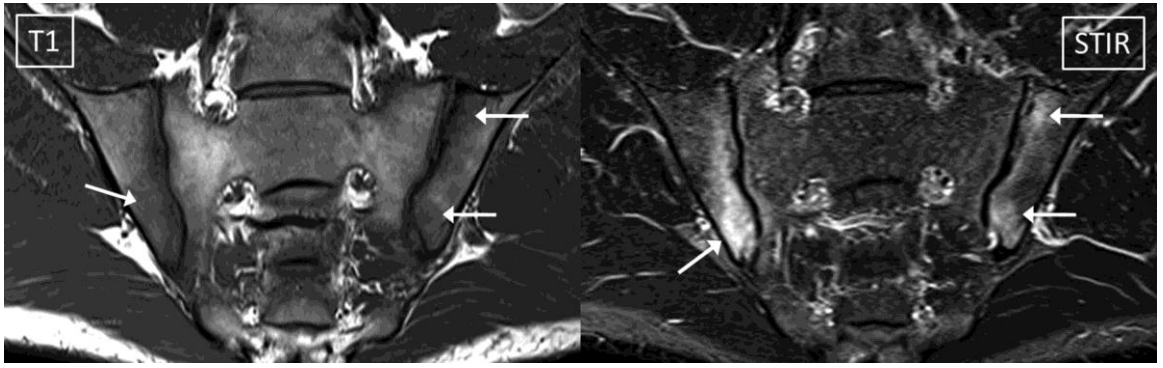
- Corner sign: edema osseo dell'angolo vertebrale
- Iperintenso in STIR, ipointenso in T1
- Significativo se su almeno 3 metameri

Lesioni infiammatorie



- Lesione di Andersson: spondilodiscite infiammatoria
- Iperintensità in STIR, captazione disco intervertebrale con mdc (non indicato di routine)

Lesioni infiammatorie



- Sacroileite attiva: edema osseo visibile in almeno 2 sezioni consecutive o in 2 aree sulla stessa sezione (criteri ASAS)

- Iperintenso in STIR, ipointenso in T1

Sacroileite = Spondiloartrite?

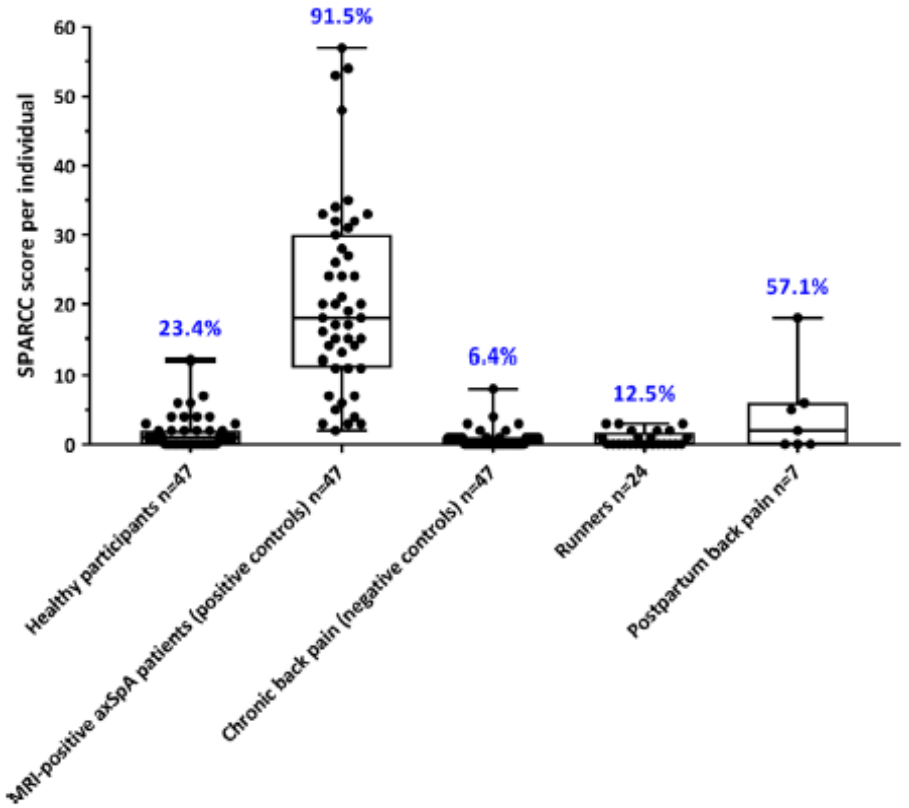
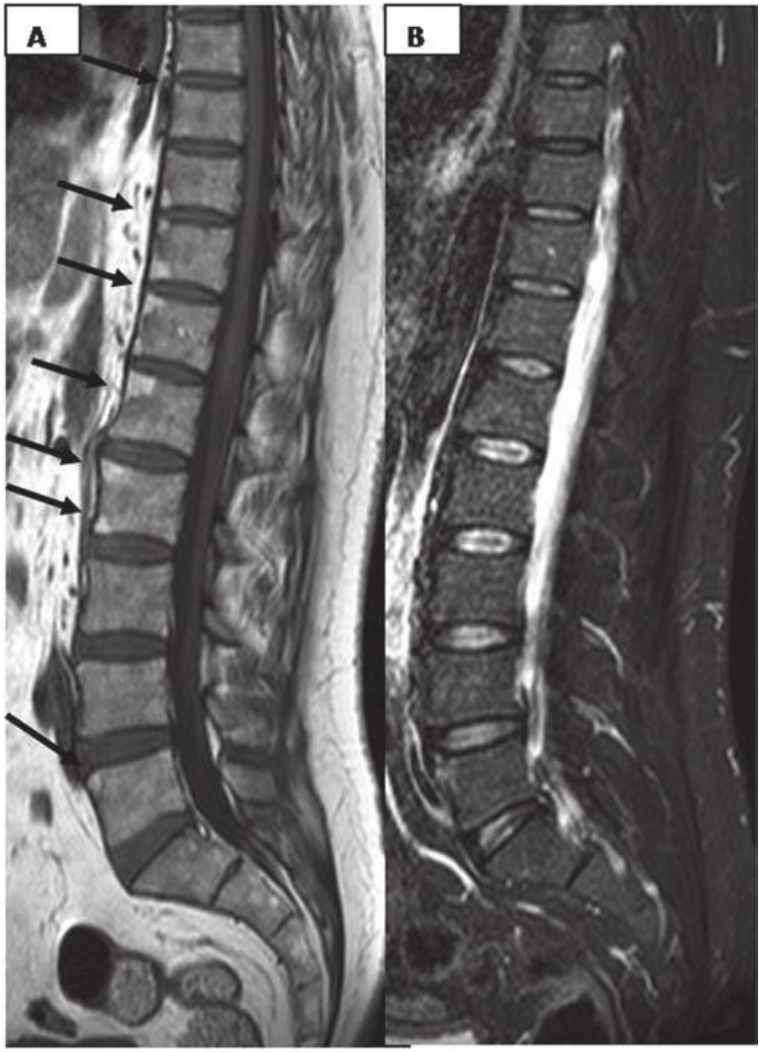


Figure 1. Sacroiliitis on magnetic resonance images (MRIs) of the sacroiliac joints in the study population. Data are shown as box plots. Each box represents the 25th to 75th percentiles. Lines inside the boxes represent the median. Lines outside the boxes represent the minimum and maximum values. Each circle represents a single subject. Values shown above the box plots are the percentage of subjects with an MRI indicating sacroiliitis according to the Assessment of SpondyloArthritis international Society definition. For positive controls and negative controls, "positive" and "negative" refer to the final diagnosis (axial spondyloarthritis [axSpA] or no axial SpA) after vigorous diagnostic evaluation, and not to the MRI result per se. SPARCC – Spondyloarthritis Research Consortium of Canada.

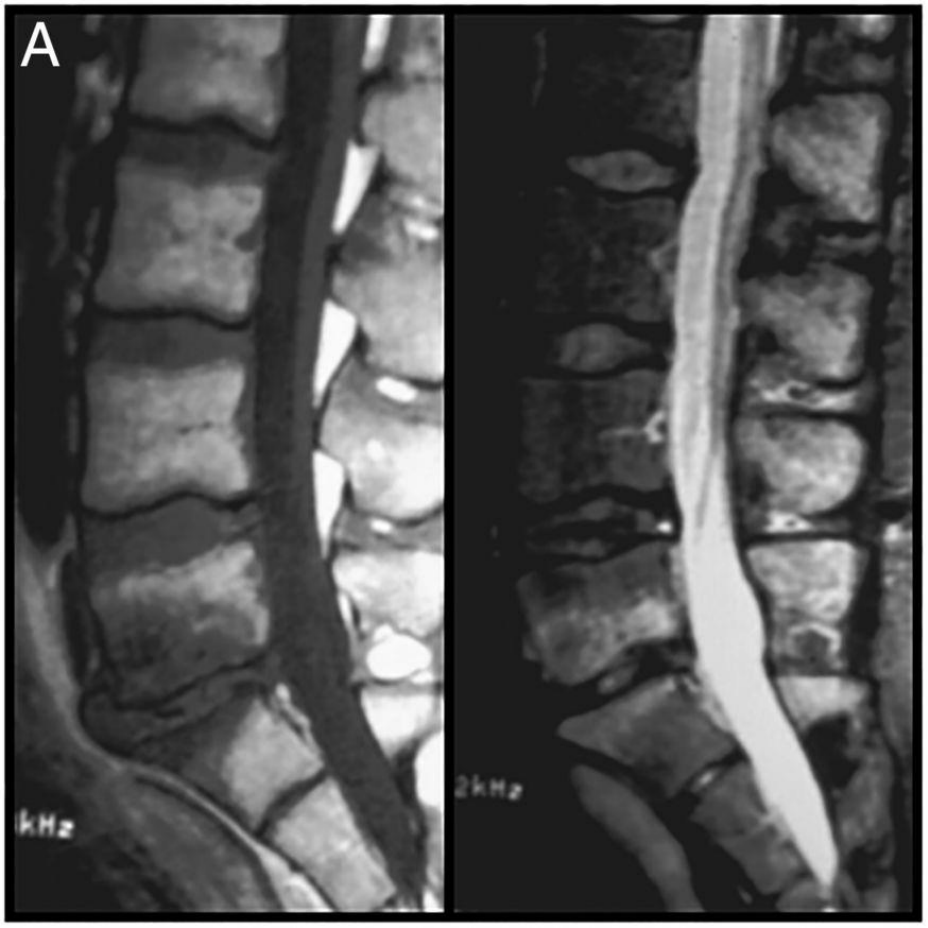
J de Winter et al. Arthritis Rheumatol. 2018

Lesioni non infiammatorie



- Fatty lesions: esiti flogistici con sostituzione adiposa
- Iperintense in T2, ipointense in STIR

Lesioni “non infiammatorie”



- Lesioni Modic: associate a discopatie spondiloartrosi e spondilolistesi
- Tipo 1 è infiammatorio: iperintensità in STIR e ipointensità in T1

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Recommendation

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EULAR recommendations for the management of psoriatic arthritis with pharmacological therapies: 2019 update

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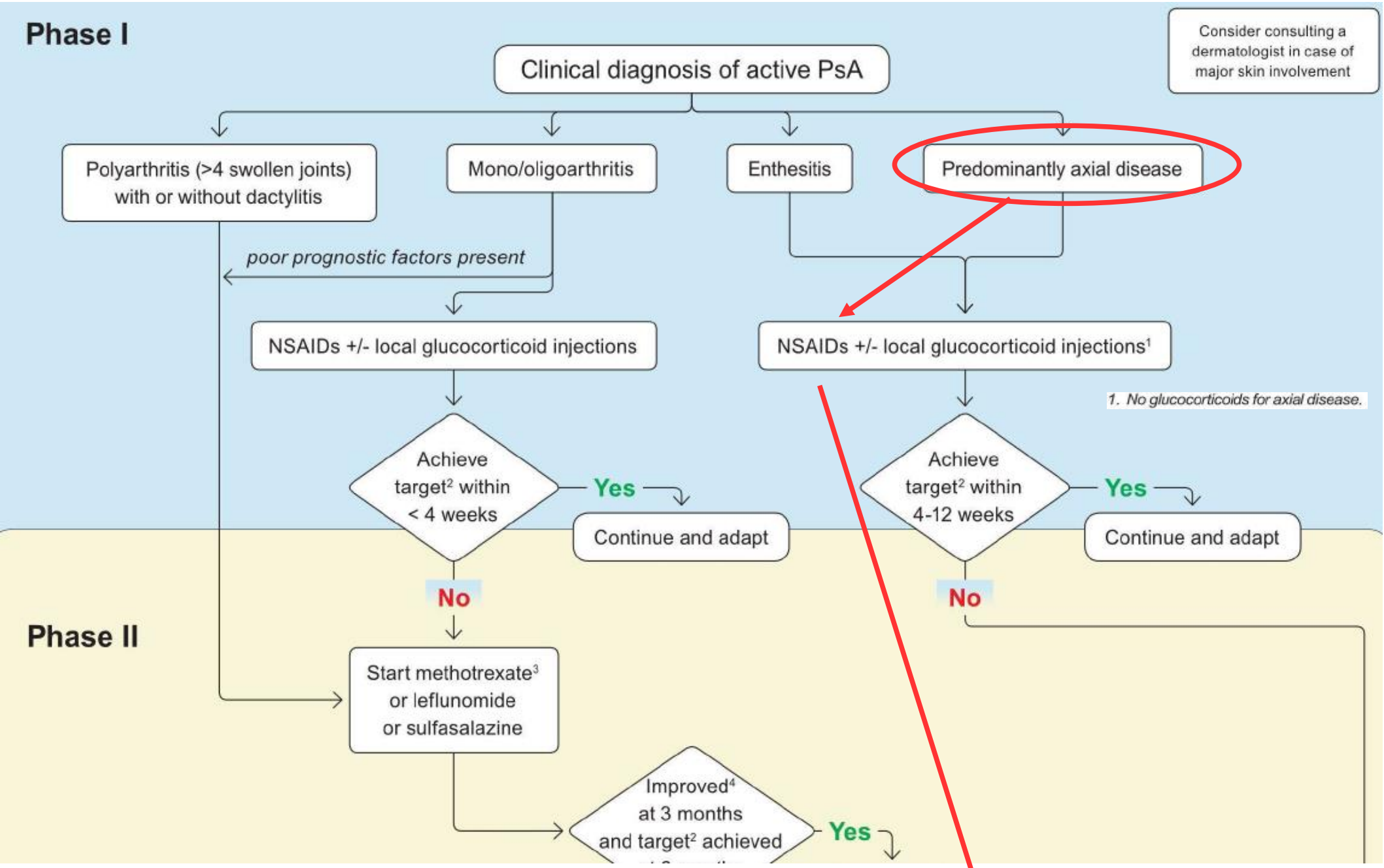
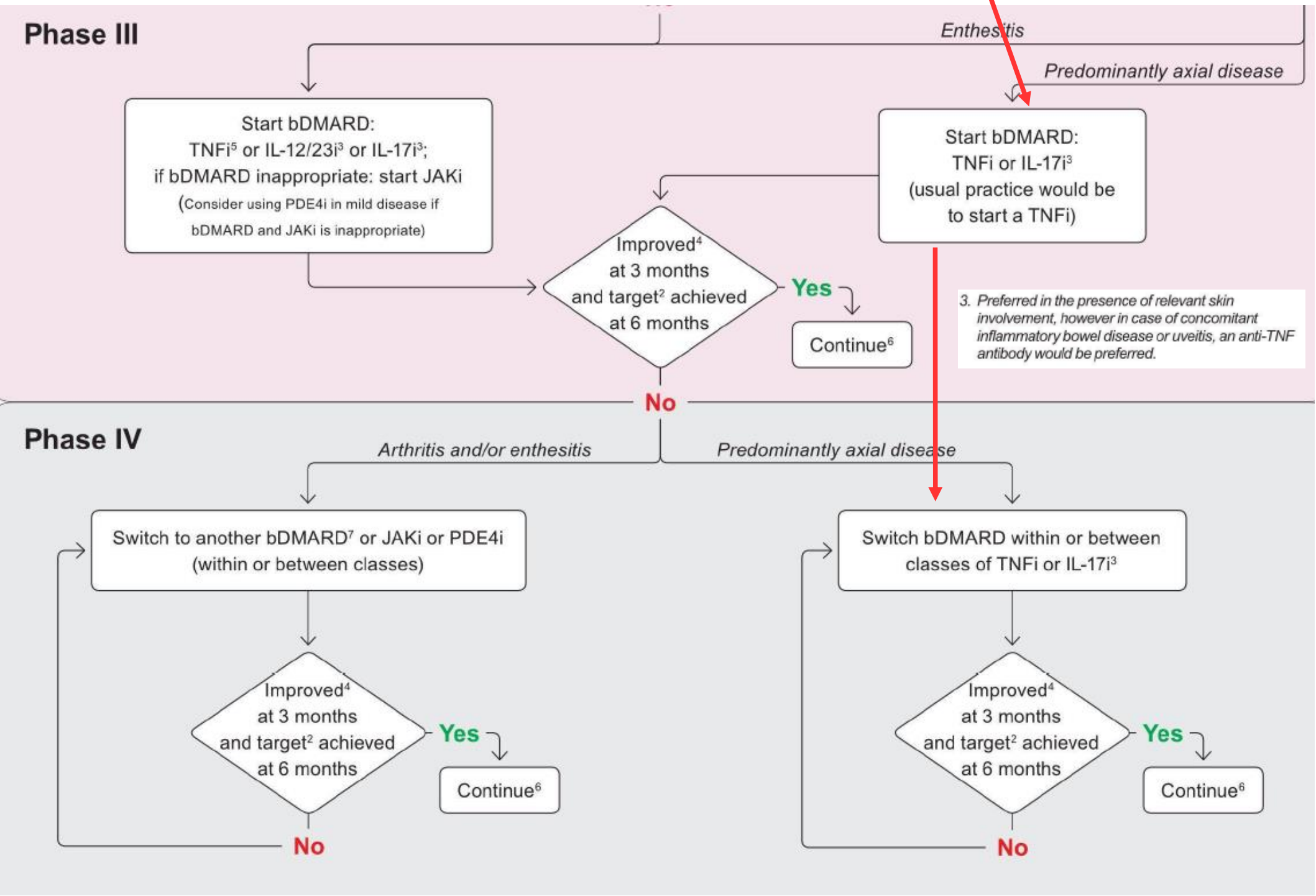


L Gossec et al. Ann Rheum Dis. 2020



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Anti TNF

Raccomandazioni basate sui dati derivanti dagli studi sulla Spondilite Anchilosante e sulla lunga esperienza clinica

Anti IL-17

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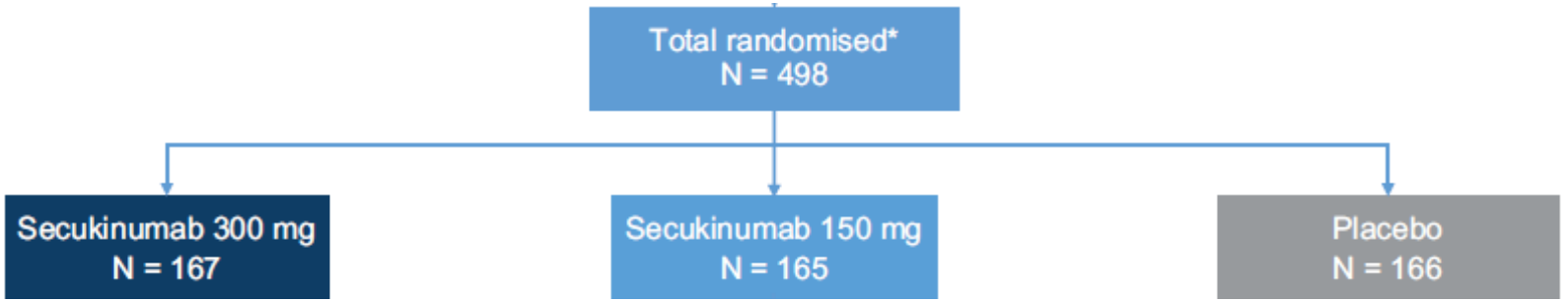
Secukinumab in patients with psoriatic arthritis and axial manifestations: results from the double-blind, randomised, phase 3 MAXIMISE trial



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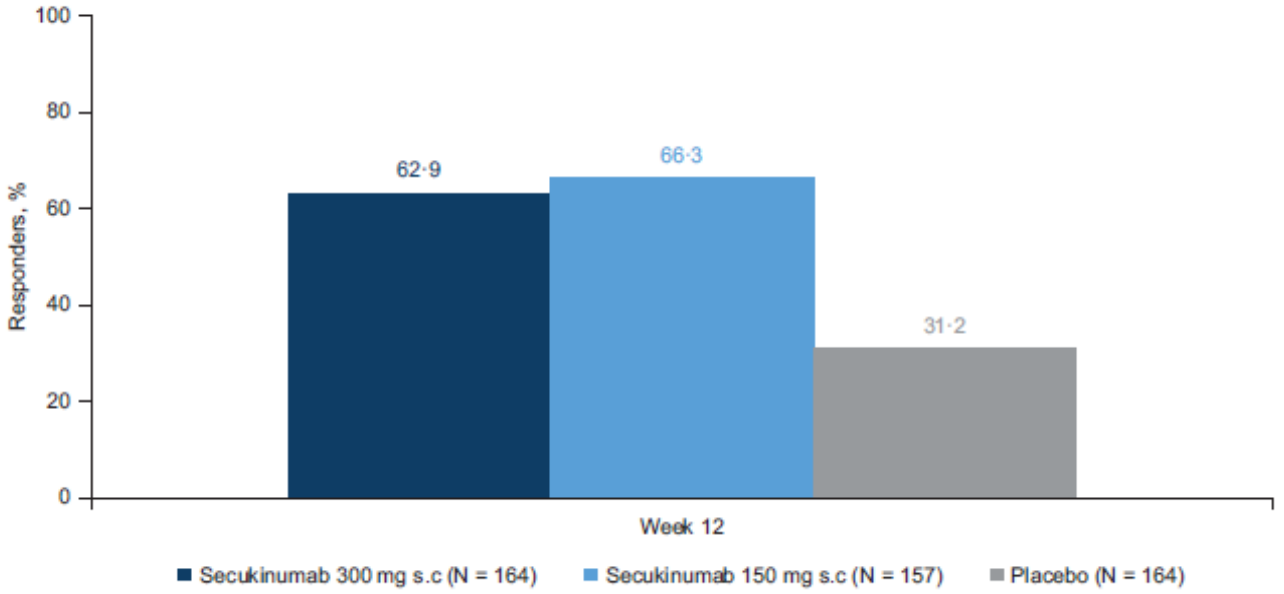
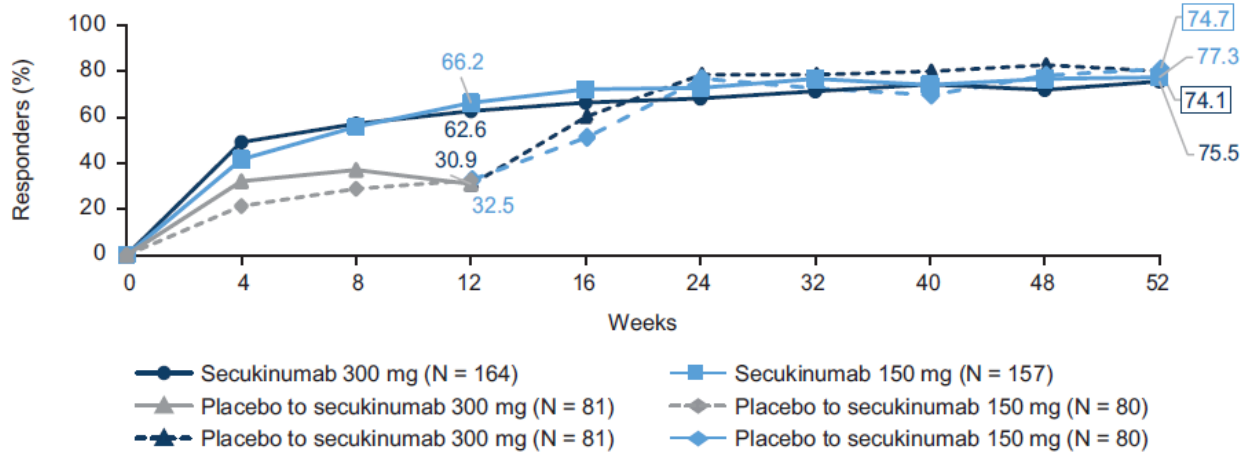
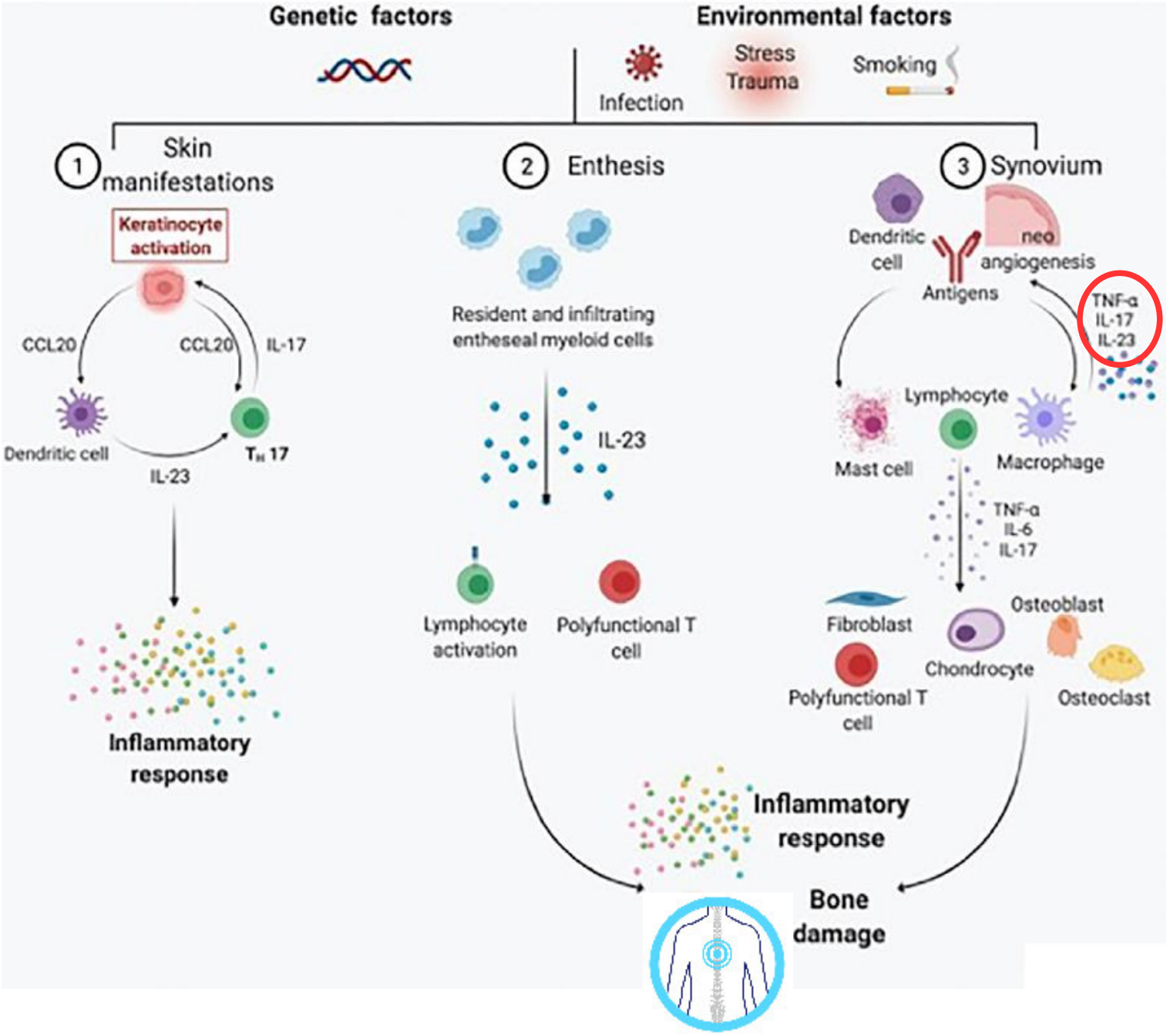




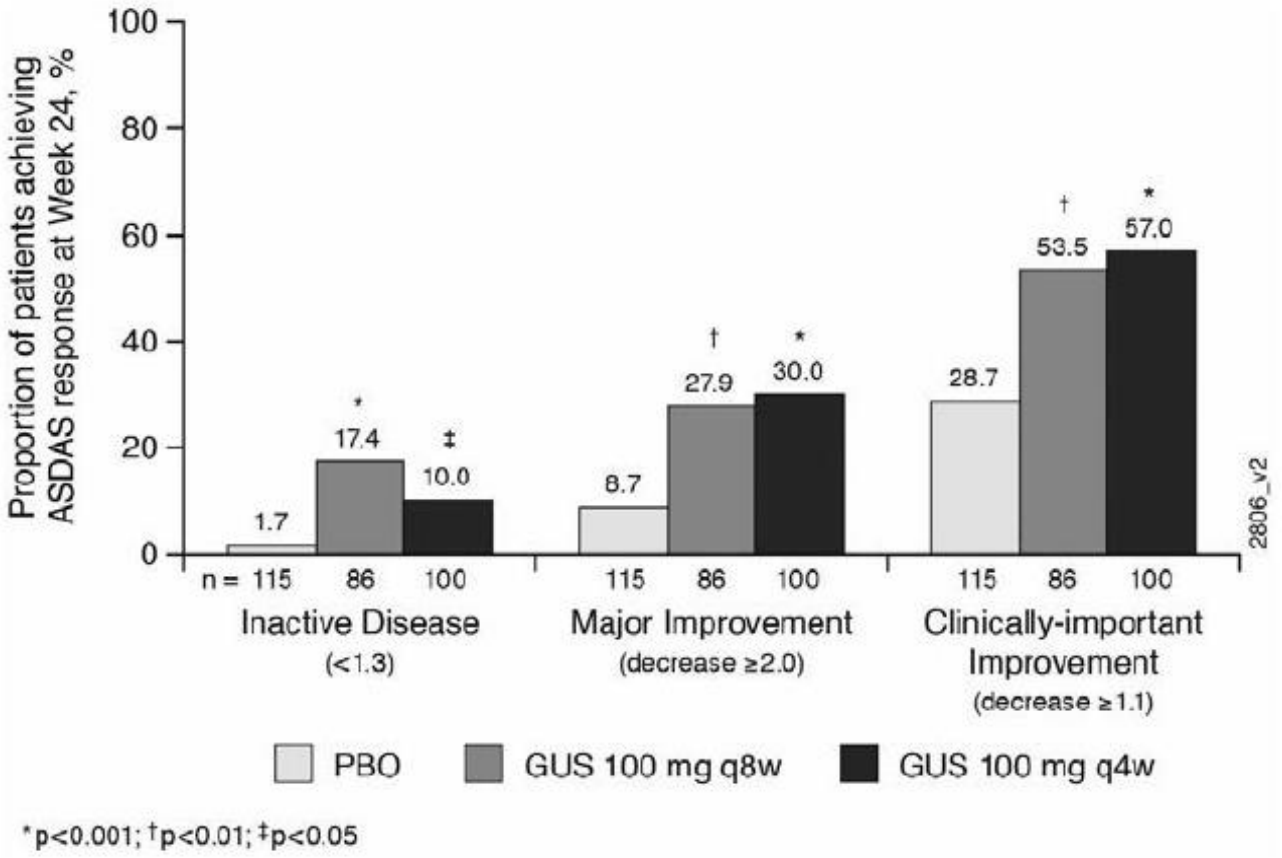
X Baraliakos et al. Ann Rheum Dis. 2021



Modificata da E Silvagni et al. Front Pharmacol. 2021

Anti IL-23

Analisi post hoc sui pazienti degli studi registrativi di Guselkumab con sacroileite allo screening.



P. Helliwell et al. Ann Rheum Dis. 2021

Interventi non farmacologici

Table 8.

Recommendations for treatment of patients with active psoriatic arthritis with nonpharmacologic interventions (PICOs 1–8)*

	Level of evidence (evidence [refs.] reviewed)†
In adult patients with active PsA,	
1. **Recommend exercise over no exercise** (PICO 1)	Low (128)
Conditional recommendation based on low-quality evidence; may consider no exercise in patients with existing muscle/tendon injury or multiple inflamed symptomatic joints with worsening pain with exercise.	
2. **Recommend low-impact exercise (e.g., tai chi, yoga, swimming) over high-impact exercise (e.g., running)** (PICO 2)	Very low
Conditional recommendation based on very-low-quality evidence; may consider high-impact exercise due to patient preference.	
3. **Recommend physical therapy over no physical therapy** (PICO 3)	Very low
Conditional recommendation based on very-low-quality evidence; may consider no physical therapy due to patient preference, out-of-pocket cost, distance to physical therapy site, or lack of transportation.	
4. **Recommend occupational therapy over no occupational therapy** (PICO 4)	Low (129, 130)
Conditional recommendation based on low-quality evidence; may consider no occupational therapy due to patient preference, out-of-pocket cost, distance to occupational therapy site, or lack of transportation.	
5. **Recommend weight loss over no weight loss for patients who are overweight/obese** (PICO 5)	Low (131–133)
Conditional recommendation based on low-quality evidence; may consider no weight loss due to additional patient burden involved with weight-loss program.	
6. **Recommend massage therapy over no massage therapy** (PICO 7)	Very low (134)
Conditional recommendation based on very-low-quality evidence; may consider no massage therapy due to associated costs.	
7. **Recommend acupuncture over no acupuncture** (PICO 8)	Very low (135)
Conditional recommendation based on very-low-quality evidence; may consider no acupuncture due to associated costs.	
8. **Recommend smoking cessation over no smoking cessation** (PICO 6)	Moderate (136, 137)
Strong recommendation supported by moderate-quality evidence, rated down for indirectness.	

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JA Singh et al. Arthritis Care Res (Hoboken). 2019

Take Home Messages

Il coinvolgimento del rachide nell'Artrite Psoriasica è:

- Frequente (fino al 70%), ma raramente isolato
- Gravato da un importante impatto sulla qualità di vita del paziente
- Da valutare in modo integrato clinico-strumentale
- Non sempre facilmente distinguibile da altre forme infiammatorie (SAN) e forme meccaniche (DISH, patologie degenerative)
- Importante da individuare precocemente per impostare un percorso terapeutico appropriato


GRAZIE PER L’ATTENZIONE