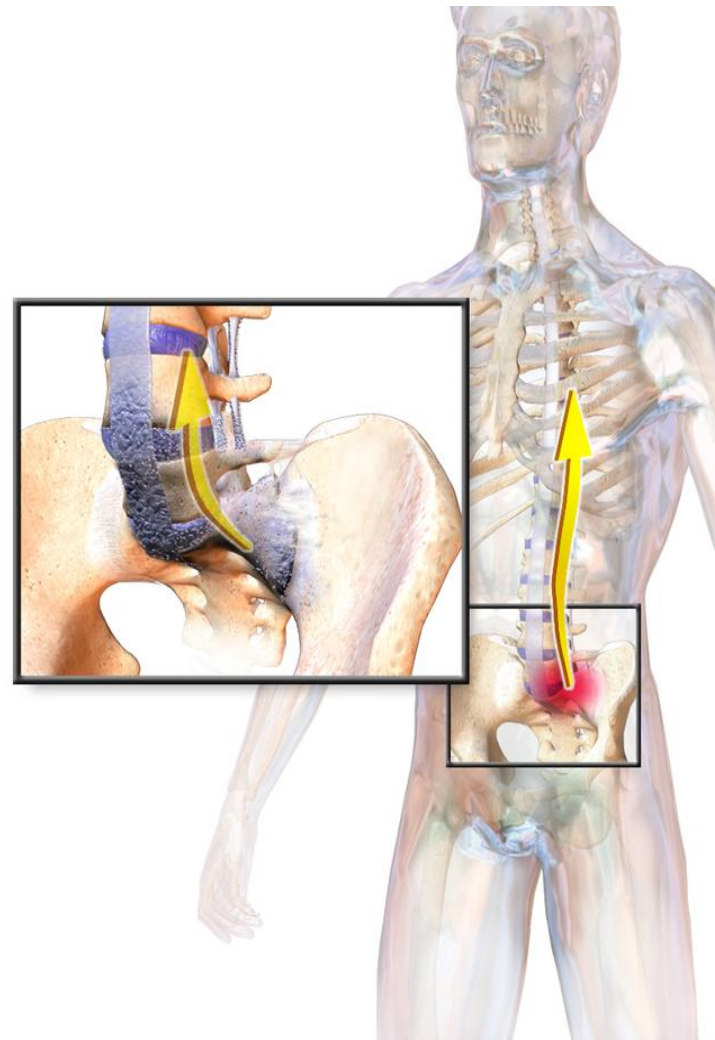
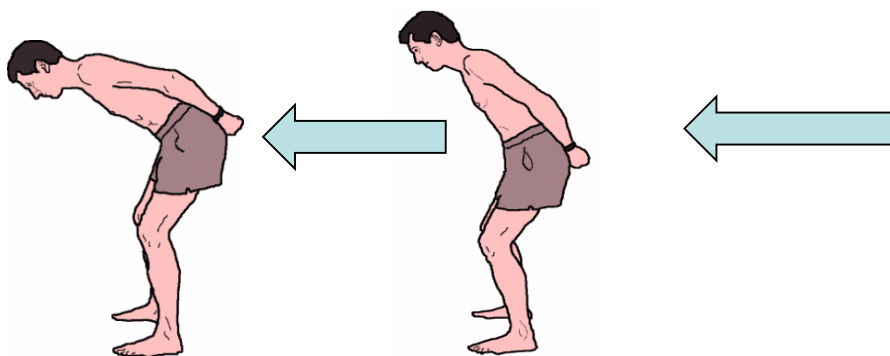
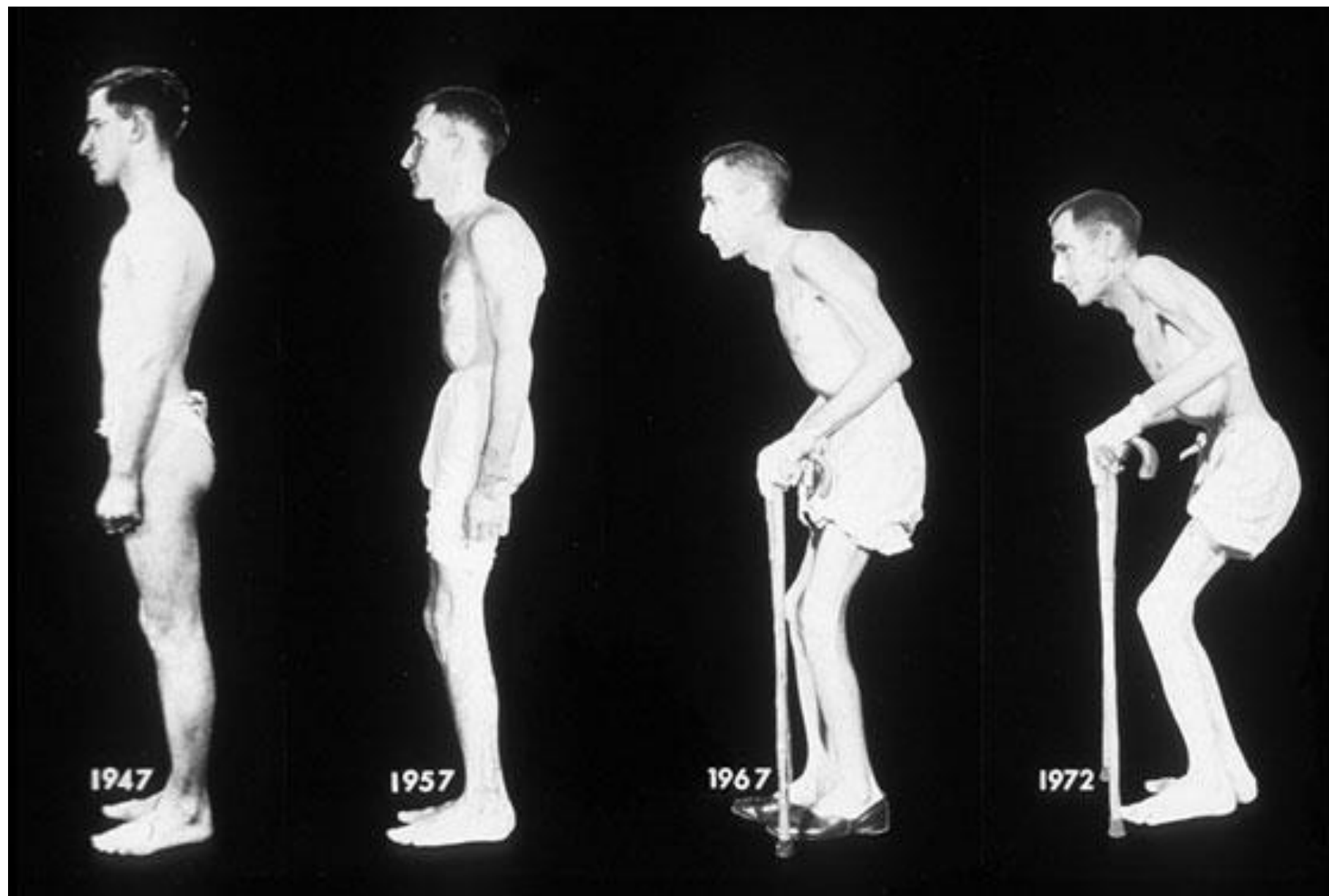


Ankilozirajući spondilitis

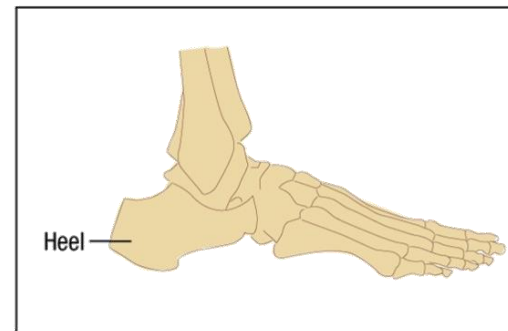
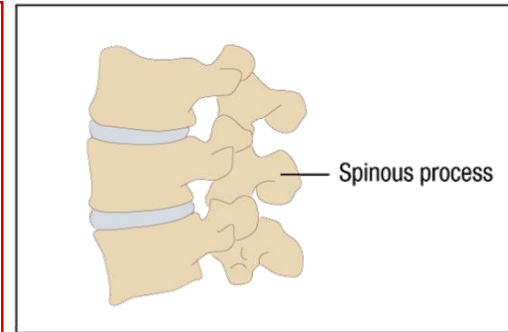
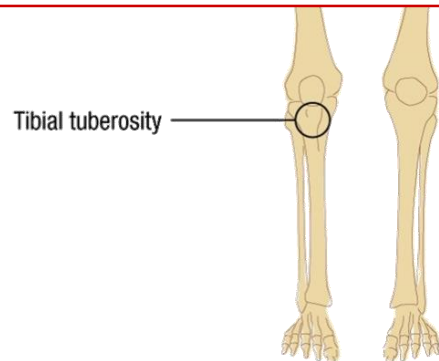
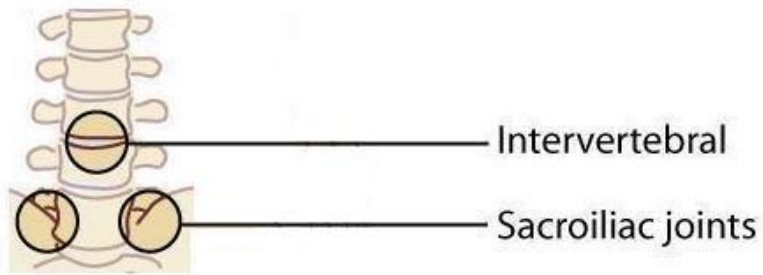
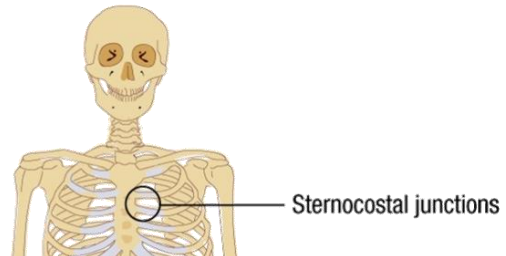
doc. dr Gorica Ristić,

Klinika za reumatologiju i kliničku imunologiju VMA





MESTA UPALE



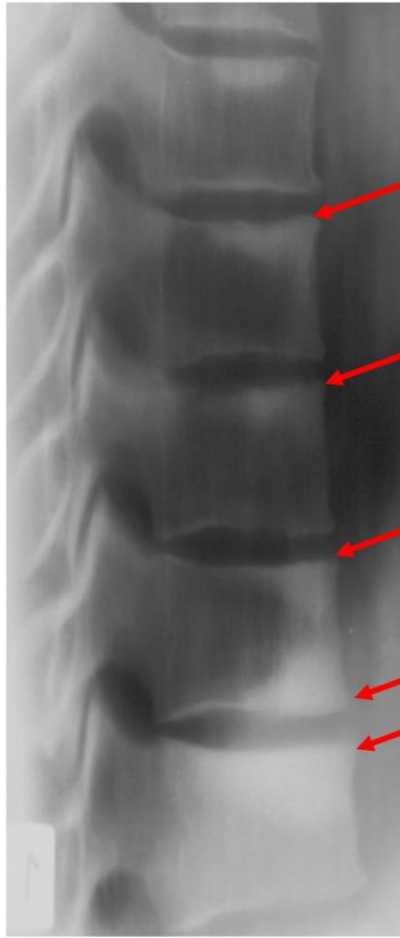
Progression of Cervical Syndesmophytes 2-Year Intervals



AS, m, 30 y, disease duration 14 y

ASAS handbook, Ann Rheum Dis 2009; 68 (Suppl II) (with permission)

Evidence of Chronic Spinal Changes in Ankylosing Spondylitis



Sclerosis
„shiny corners“

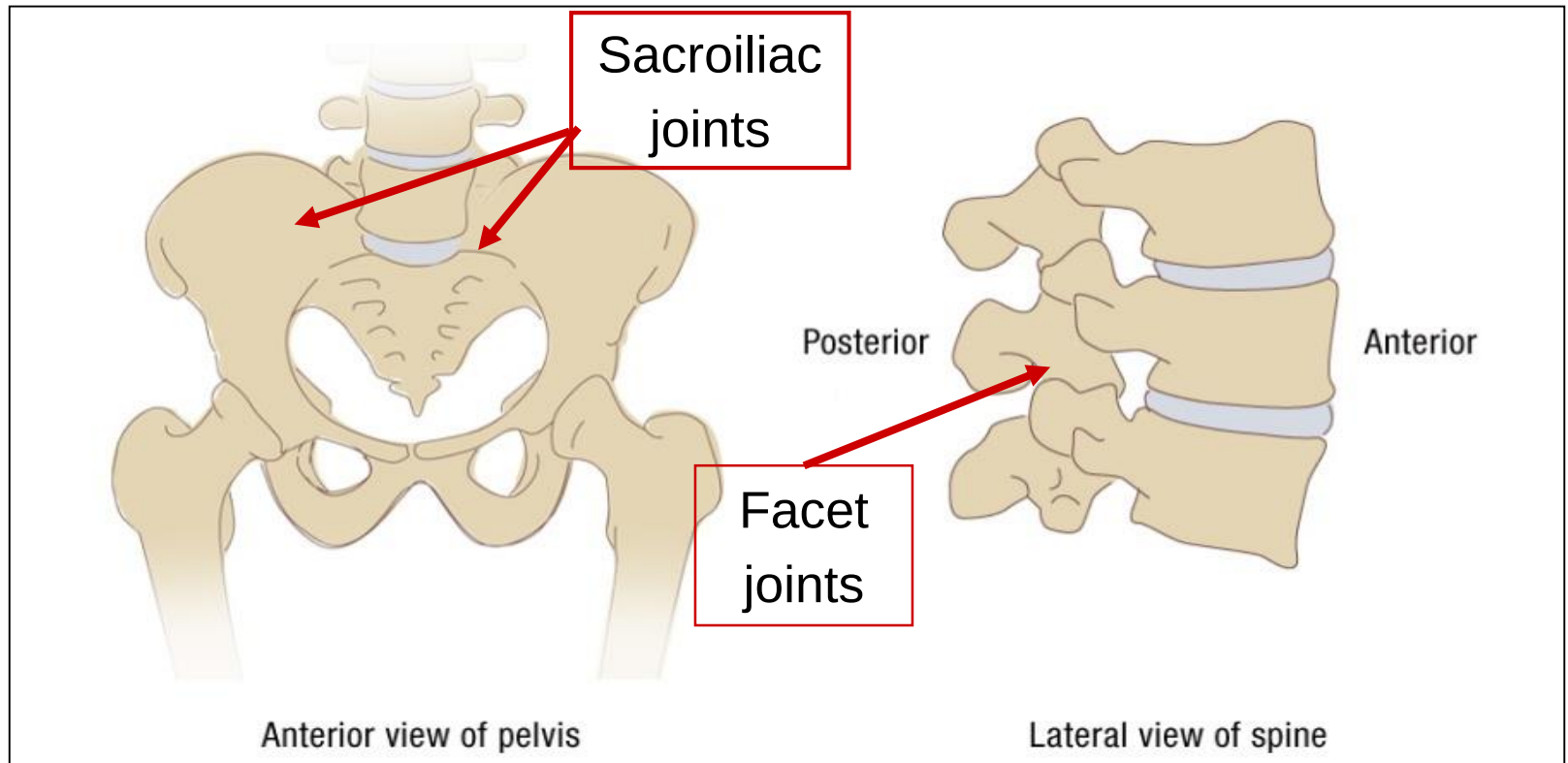


Syndesmophytes
(and spondylophytes)



Bridging
syndesmophytes

MESTA UPALE



Sacroiliitis Grade 0 (Normal)

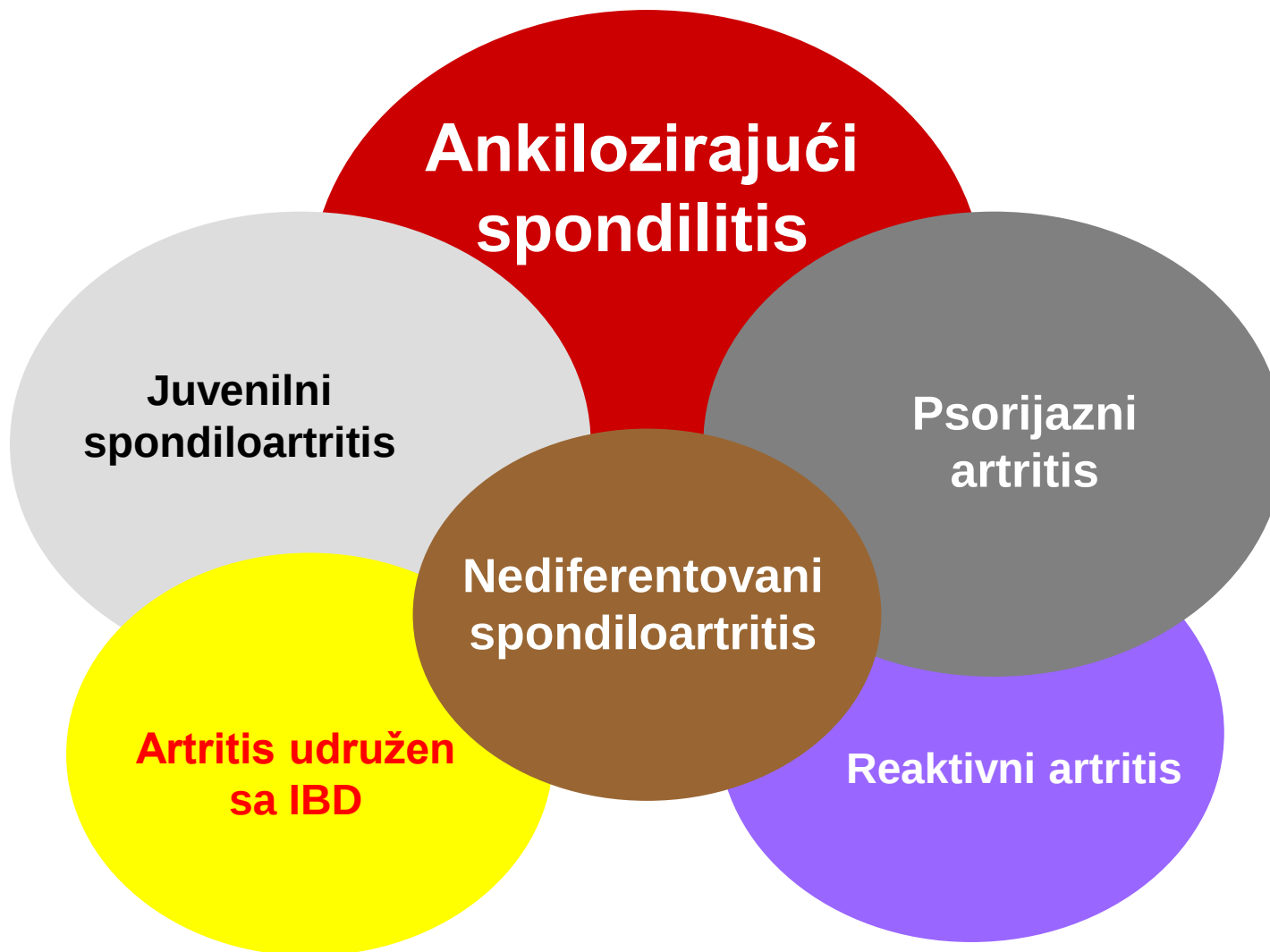


Sacroiliitis Grade 4 Bilaterally

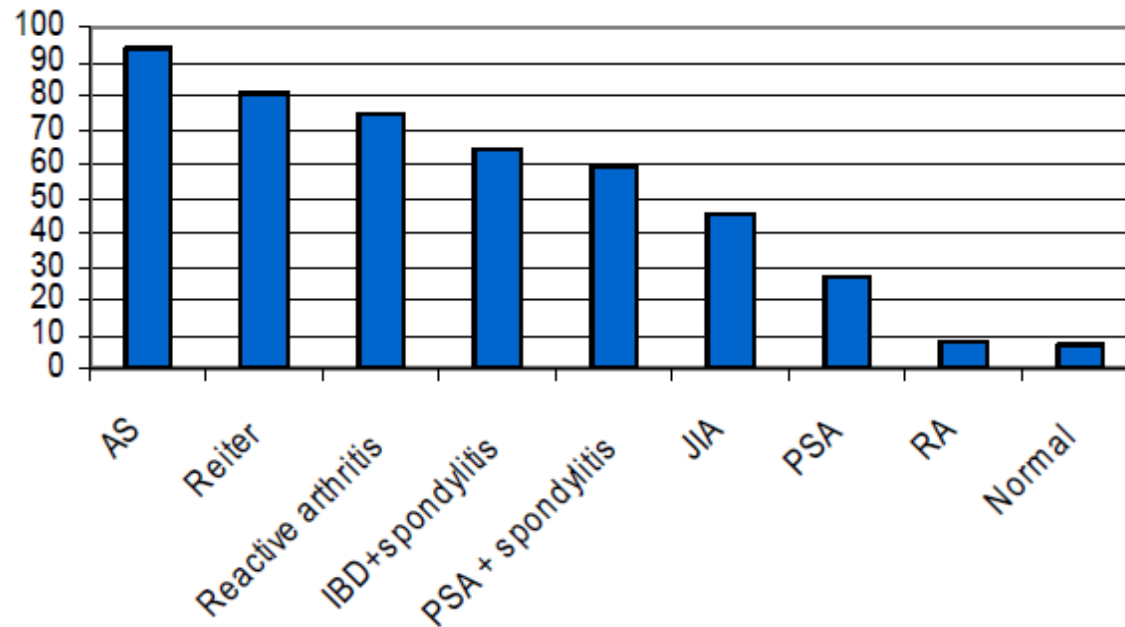


Familija spondiloartritisa

grupa srodnih oboljenja na osnovu **genetske** predispozicije i **kliničkih** manifestacija



Frequency of HLA-B27 in spondyloarthropathies



Spondiloartritis – zajedničke karakteristike

- genetska predispozicija (HLA-B27 +)
- **češća pojava kod osoba muškog pola** (ankilozirajući spondilitis i Reiterov sindrom su 7-10 puta češći kod muškaraca)
- **najveća incidencija u trećoj deceniji života**
- progresivni tok sa spontanim remisijama i recidivima
- **pozitivni nespecifični pokazatelji zapaljenja**
- odsustvo organ specifičnih i nespecifičnih autoantitela kao i reumatoidnog faktora (raniji naziv - seronegativne spondiloartropatije)
- **sakroiliitis, periferni artritis i daktilitis**
- **entezopatije**
- **česte ekstraartikularne manifestacije** (oči: iridociklitis, uveitis, konjunktivitis, koža: mukokutane promene i dr.) i preklapanje kliničkih manifestacija



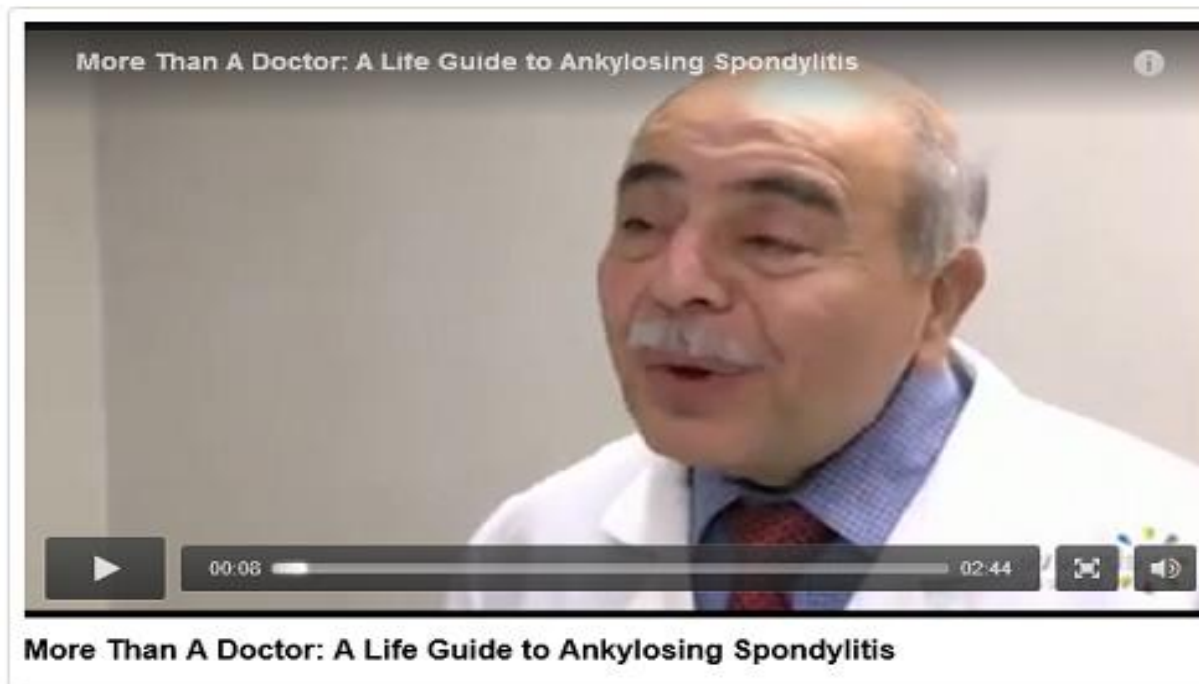
Prof. Muhammad Asim Khan MD, an eminent Rheumatologist



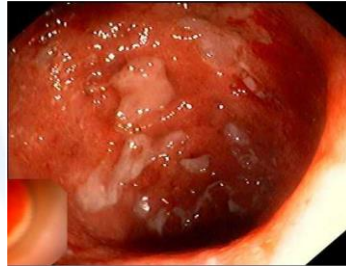
More Than A Doctor: A Life Guide to Ankylosing Spondylitis

Dr. Muhammed Khan has a more severe case of ankylosing spondylitis than most of his patients, and he wants to keep it that way.

Video featuring Dr. Sanjay Gupta



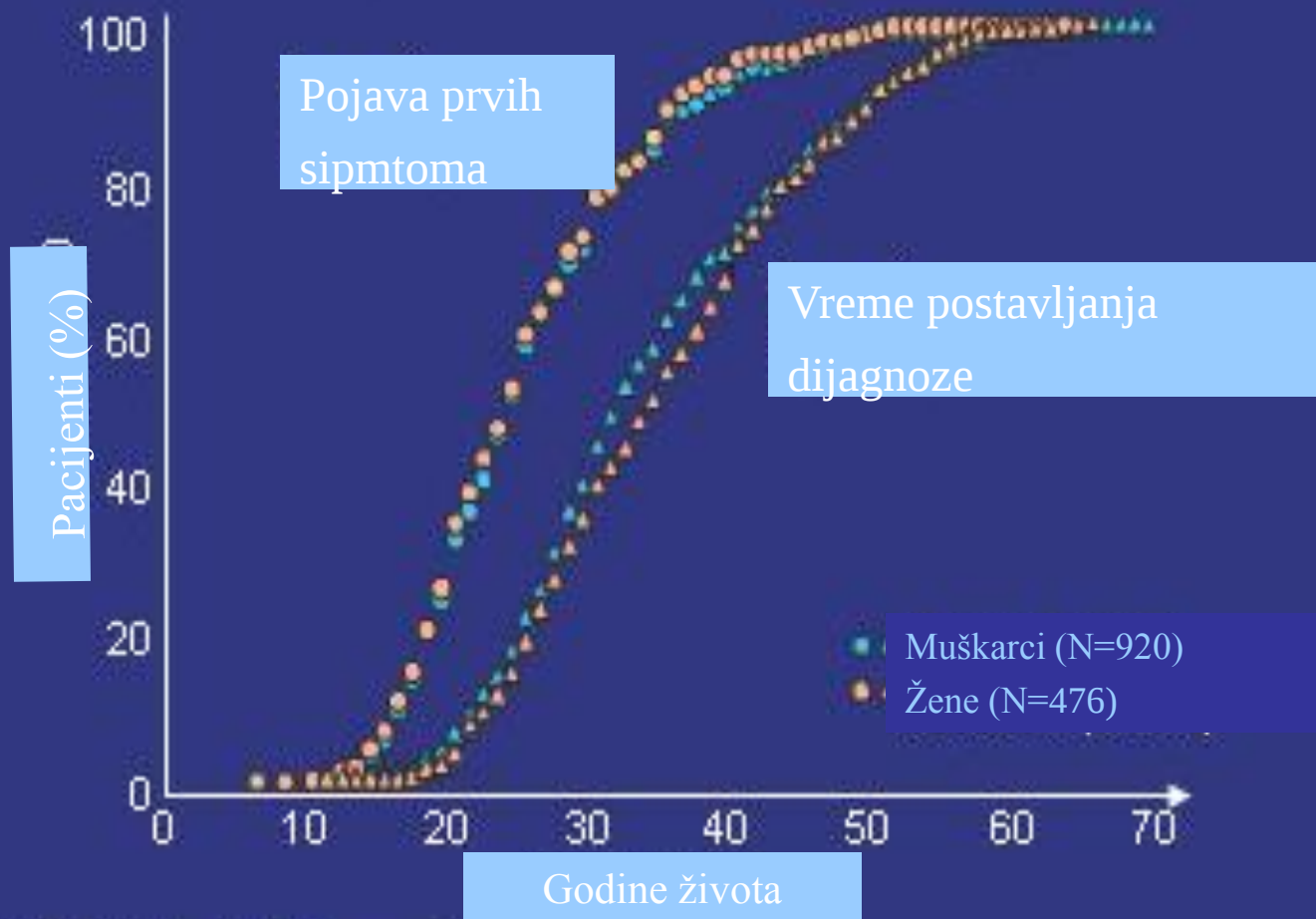
<http://www.everydayhealth.com/hs/ankylosing-spondylitis-treatment-management/sanjay-gupta/life-guide/>



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



ZAKASNELA DIJAGNOZA AS

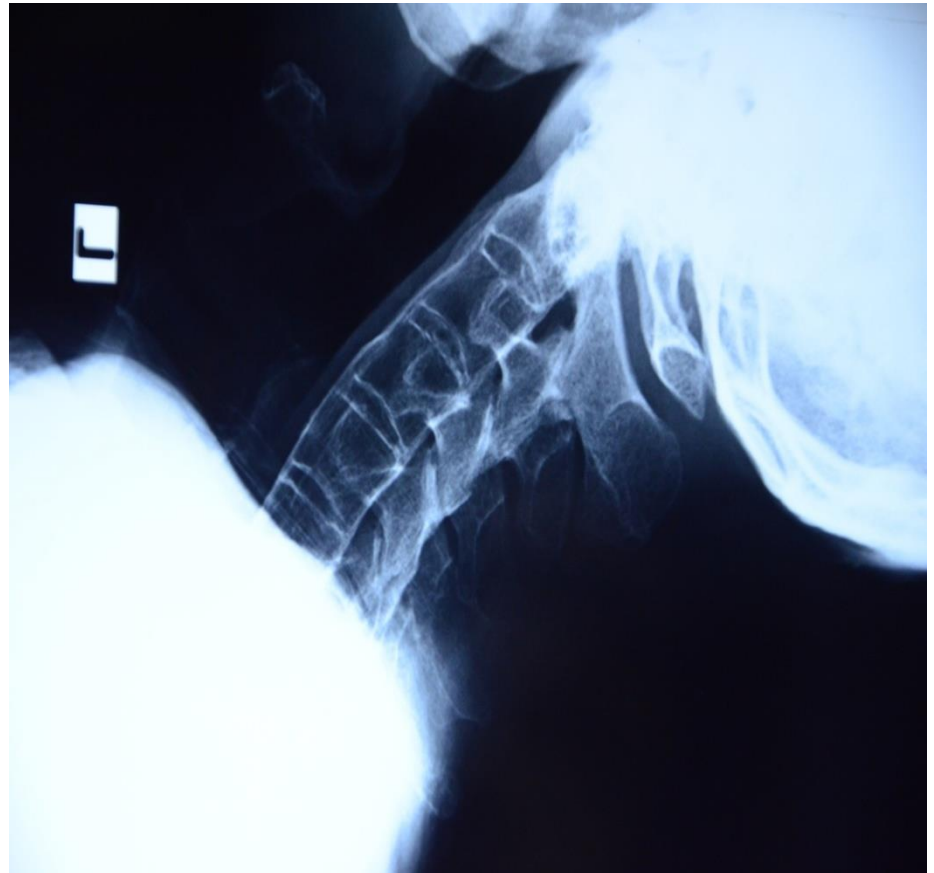
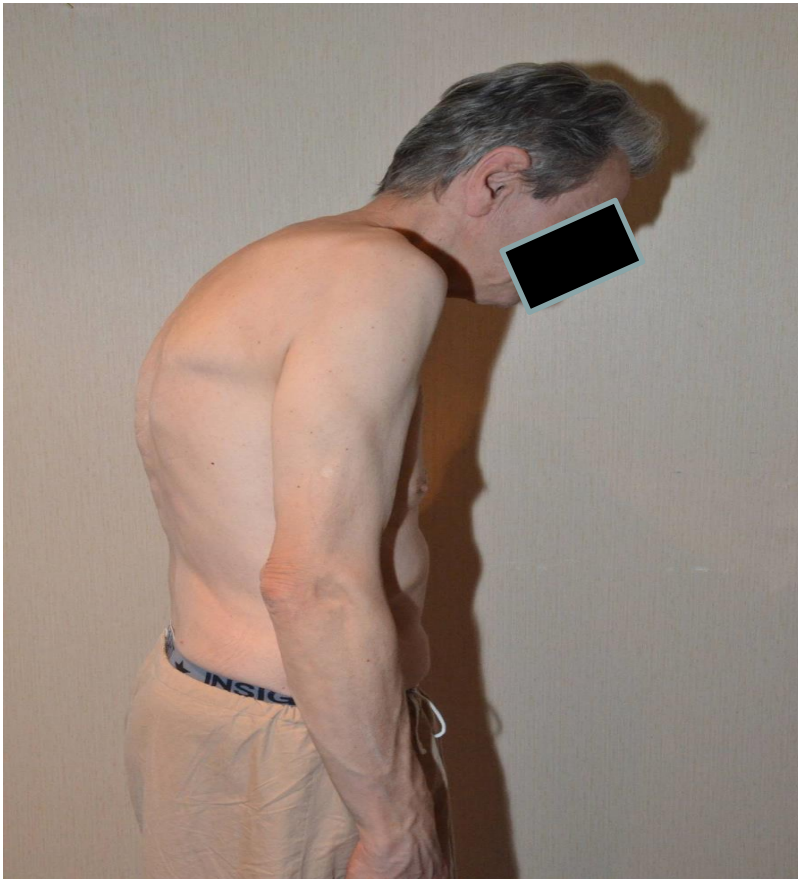


Feldtkeller E, et al. *Rheumatol Int.* 2003;23:61-66

Feldtkeller E, et al. *Curr Opin Rheumatol.* 2000;12: 239-247

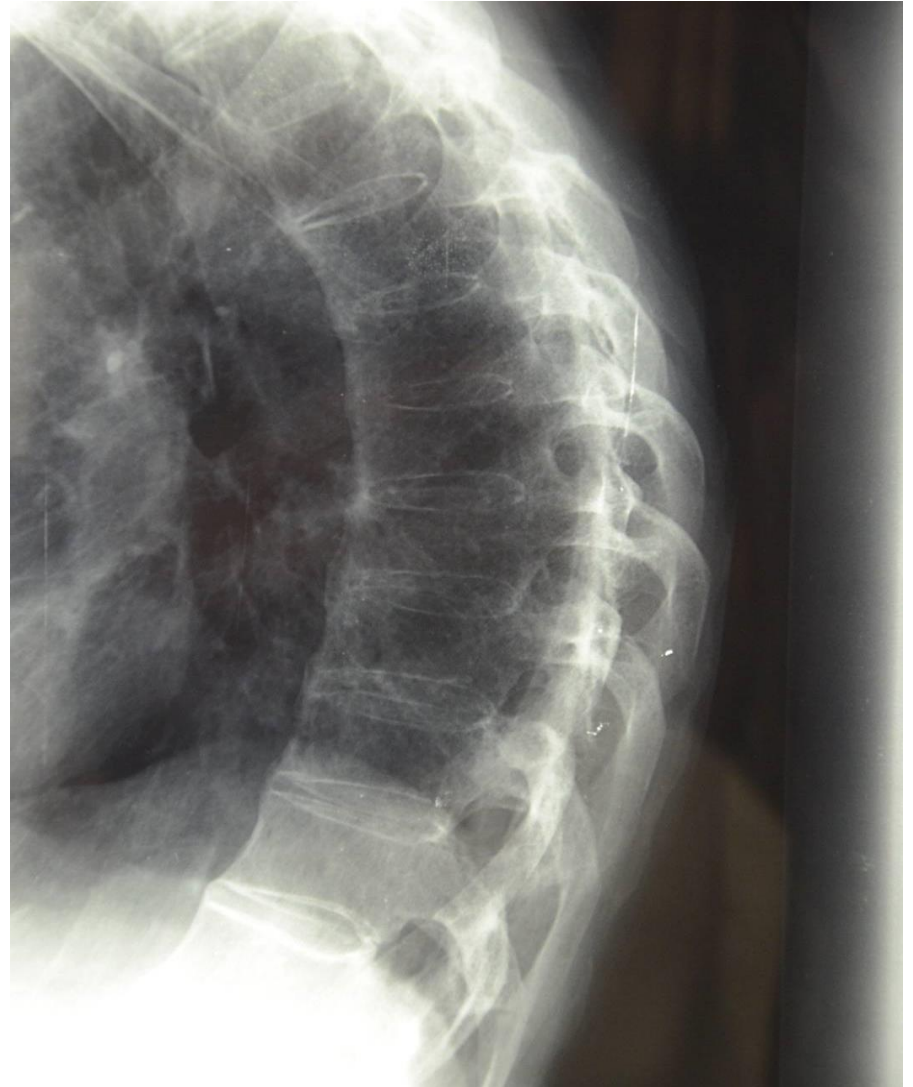
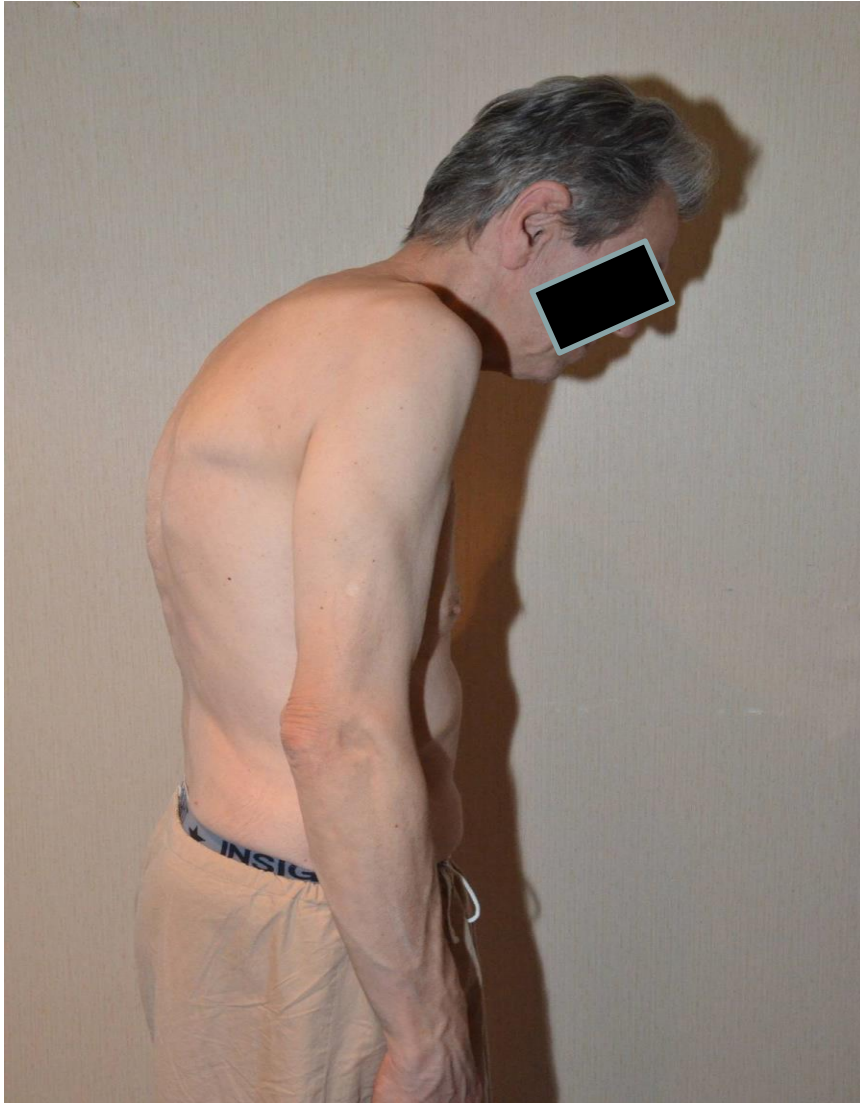
Bolesnik Đ. S. , 59 godina

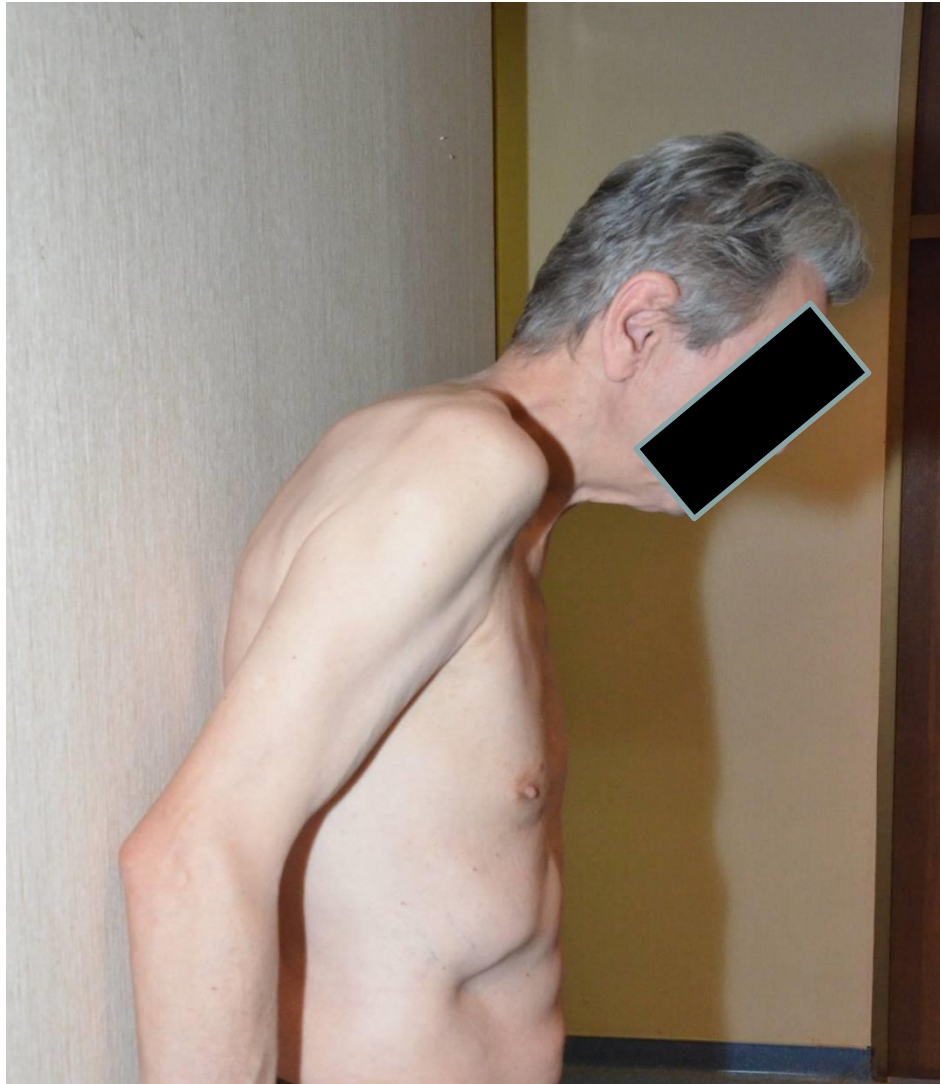
- Septembar 2014 (VMA – prva hospitalizacija):
- Godina 1990 (34 godine):
 - Bolovi u vratnom delu kičme, HLAB27 +. TH: NSAIL



Bolesnik Đ. S. , 59 godina

➤ Septembar 2014 (VMA – prva hospitalizacija):





**Unable to look ahead while walking
“patient cant see the sun”**

Bolesnik Đ. S. , 59 godina

- Godine 2011-2012.g.
- Bolovi u kukovima



SPONDILO-ARTRITISI

Zahvat aksijalnog skeleta

- sakroileitis
- spondilitis



Zahvat perifernih zglobova

- Asimetričan
- Oligoartikularan
- Na donjim ekstremitetima

Zahvat ekstraartikularnih organa

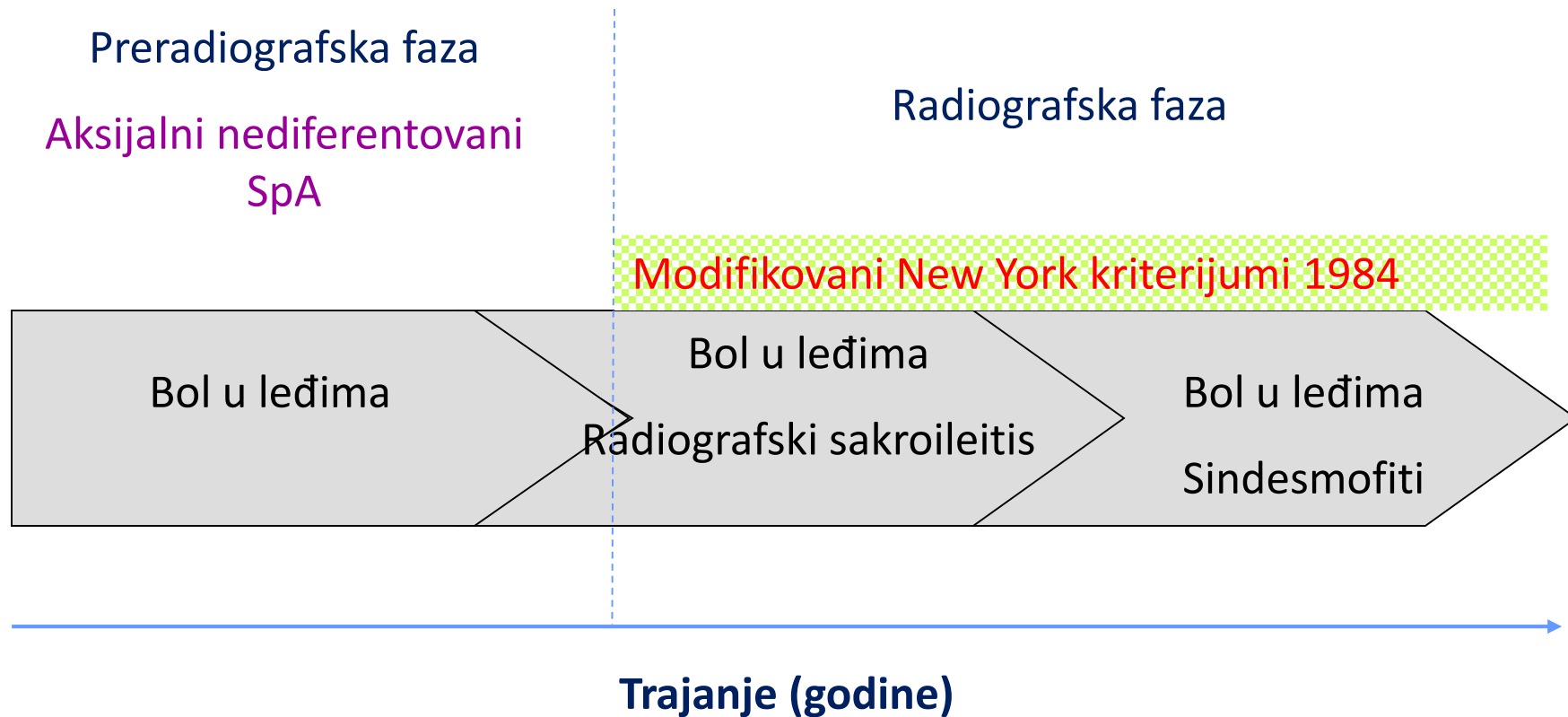
koža, oko, pluća, srce, creva...

Spondiloartritis

- **1930.** - Crebs/
Rtg SI zglobova/ sakroilitis
- **1970.** - Moll i Wright /
koncept familije seronegativnih spondiloartropatija/
- **1973.**
- otkriće HLA B 27 antigena, prisutan u 20 - 95% bolesnika/ iz koncepta izlaze Mb. Behcet i Whippleova bolest/
- 1984. - modificirani New York klasifikacioni kriterijumi za AS
- 1990. - Amor kriterijumi i potom termin spondiloartritis
- 1991. - klasifikacioni kriterijumi evropske studijske grupe (ESSG)

Danas - prosečno i do šest godina protekne do postavljanja dijagnoze ?!

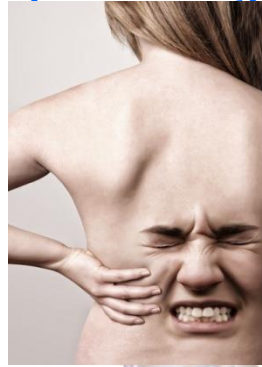
ANKILOZIRAJUĆI SPONDILITIS



Kriterijumi za aksijalni

SpA**

od osoba sa bolom u kičmi ≥ 3 meseca, a koje su ≤ 45 godina u vreme pojave prvih simptoma, u

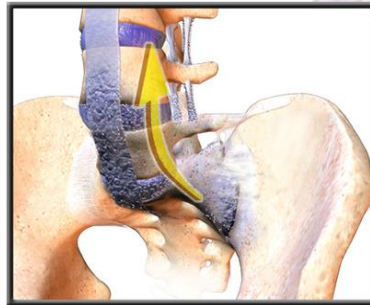


*Radiografski potvrđen
sakroileitis*
+
 ≥ 1 karakteristika SpA †

HLA-B27 pozitivnost
+
 ≥ 2 karakteristike SpA †

Radiografski potvrđen sakroileitis :

- aktivna upala sakroilijačnih zglobova na MR pregledu
- ili
- definitivan radiografski sakroileitis na osnovu New York kriterijuma

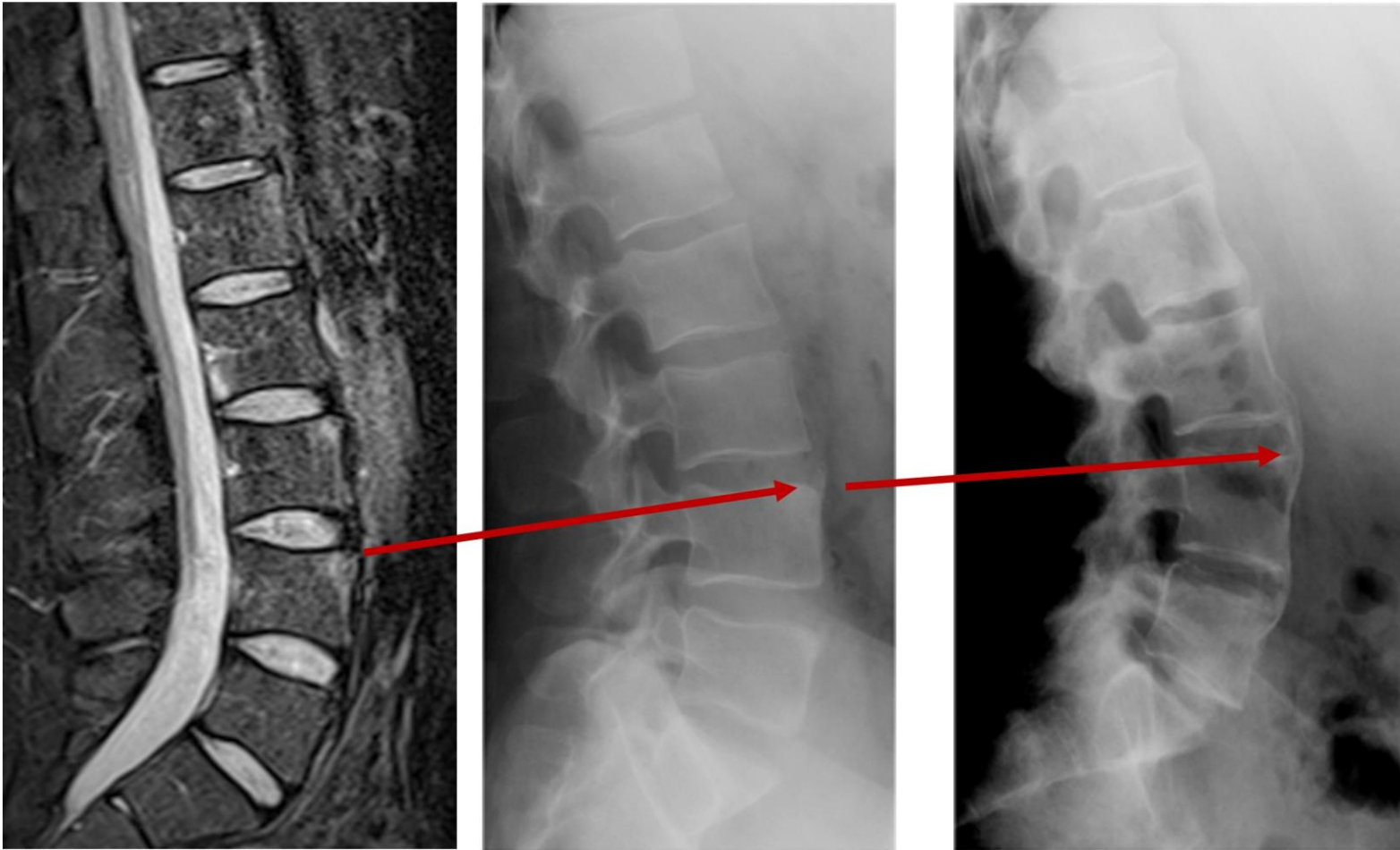


† Karakteristike SpA:

1. Bol u kičmi zapaljenskog karaktera
2. Artritis
3. Entezitis (peta)
4. Uveitis
5. Daktilitis
6. Psorijaza
7. Inflammatoryna bolest creva
8. Dobar odgovor na NSAIL
9. Porodično opterećenje za SpA
10. HLA-B27 pozitivnost
11. Povišene vrednosti CRP-a

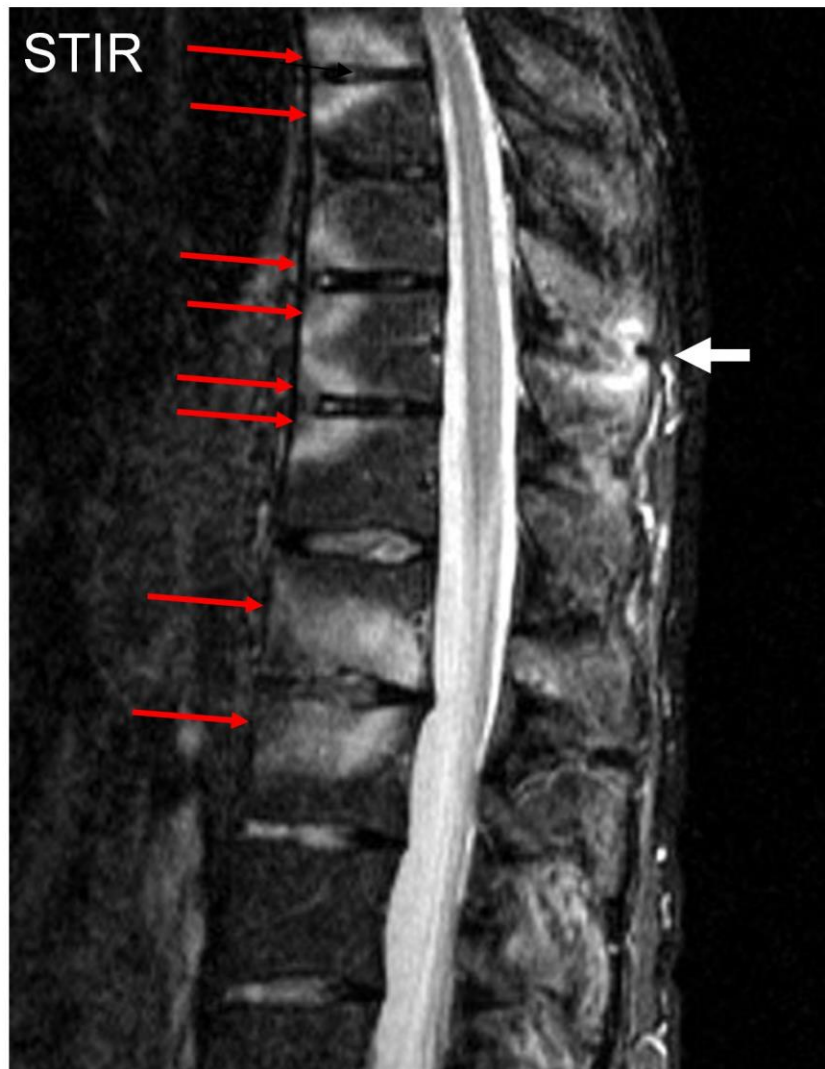
How Does Ankylosis Develop from Inflammation?

Can Ankylosis Be Retarded/Prevented?



Bone Marrow Edema at Multiple Sites of the Spine by MRI

Arrows represent bone marrow edema at multiple sites of the spine



Inflammation of facet joint

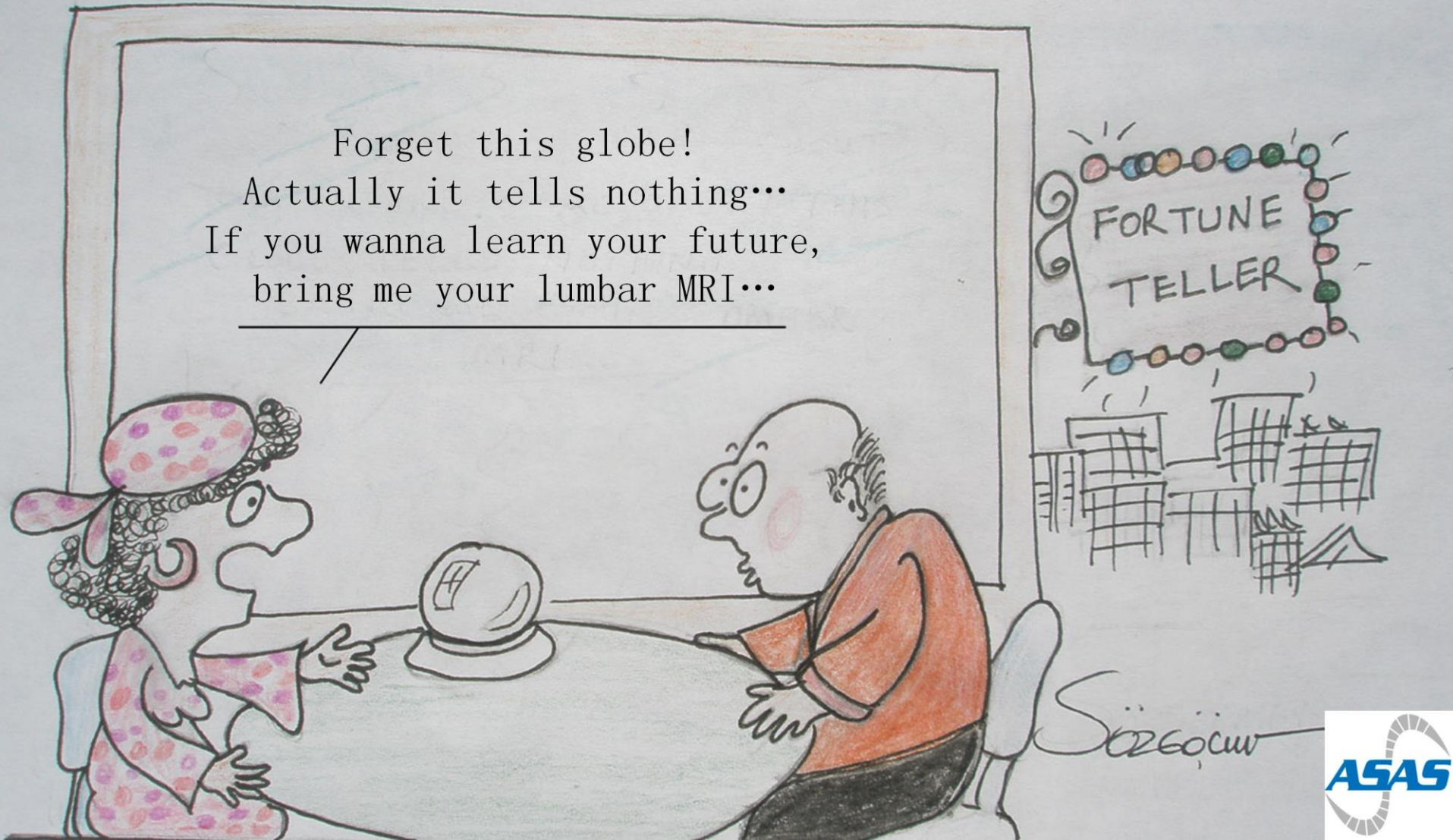
Early (limited) Sacroiliits

(Bone Marrow Edema)



Magic MRI...

Forget this globe!
Actually it tells nothing...
If you wanna learn your future,
bring me your lumbar MRI...



Kriterijumi za periferni SpA

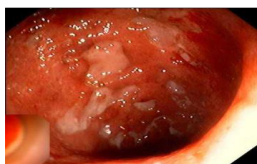
kod osoba kod kojih u kliničkoj slici dominira periferni artritis i podrazumevaju prisustvo:

**ARTRITIS ili ENTEZITIS ili
DAKTILITIS ††**



Plus ≥ 1 karakteristika SpA:

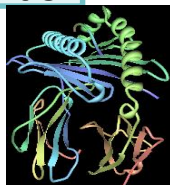
1. Psorijaza - prisutna sada ili u anamnezi
2. Inflammatoryna bolest creva - trenutno ili ranije prisutna
3. Prethodna infekcija
4. HLA-B27 pozitivnost
5. Uveitis - trenutno ili ranije prisutan
6. Radiografski potvrđen sakroileitis



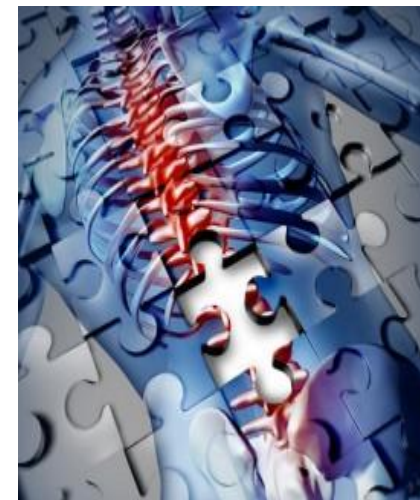
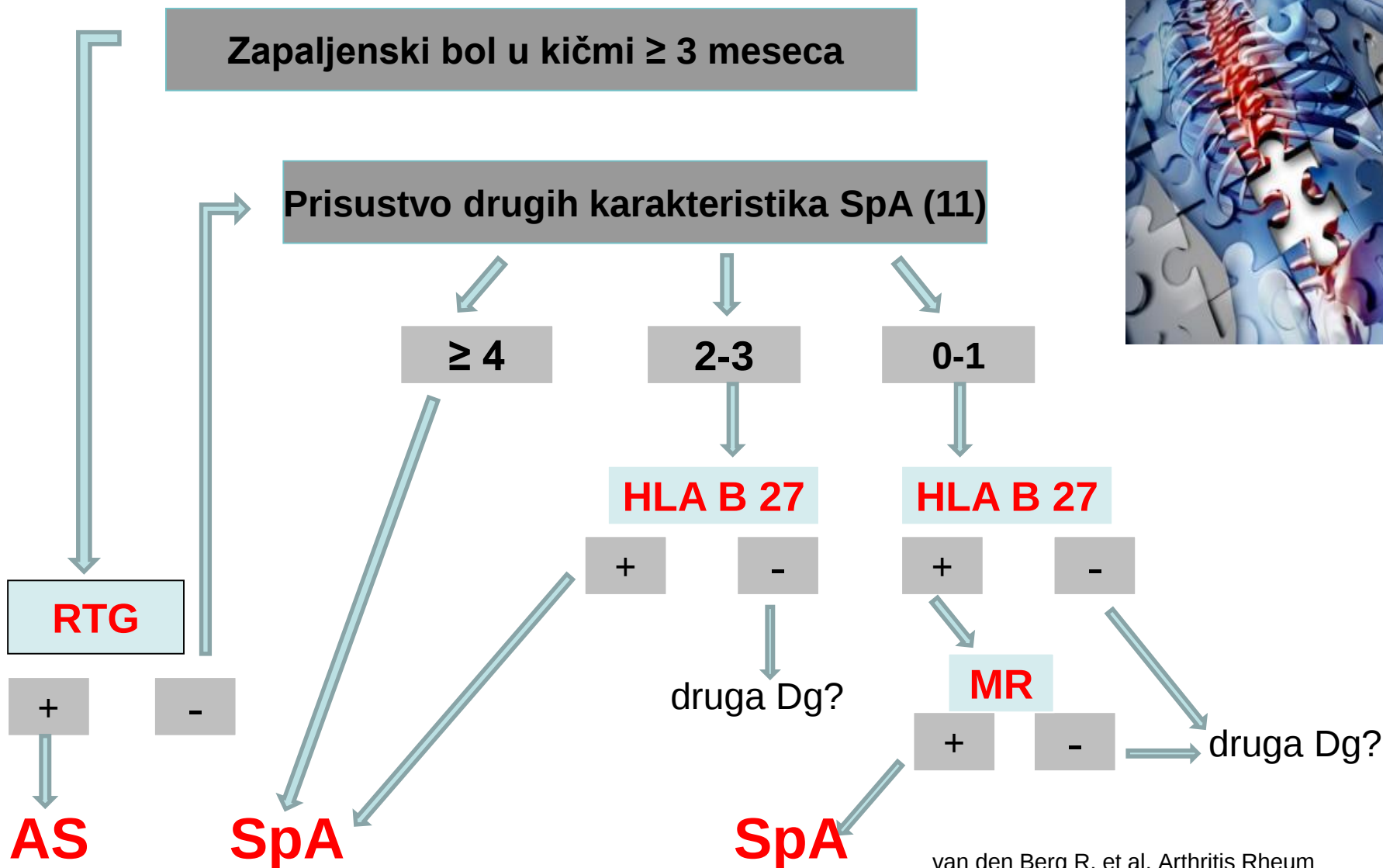
Plus ≥ 2 od ostalih karakteristika:

1. Artritis – trenutno ili ranije prisutan
2. Entezitis (bilo koja enteza) – trenutno ili ranije prisutan
3. Daktilitis – trenutno ili ranije prisutan
4. Bol u kičmi zapaljenskog karaktera ‡ odnosi se samo na ranije prisutan bol

†† Porodično opterećenje za SpA



ASAS algoritam za dijagnozu aksijalnog SpA



Familija spondiloartritisa



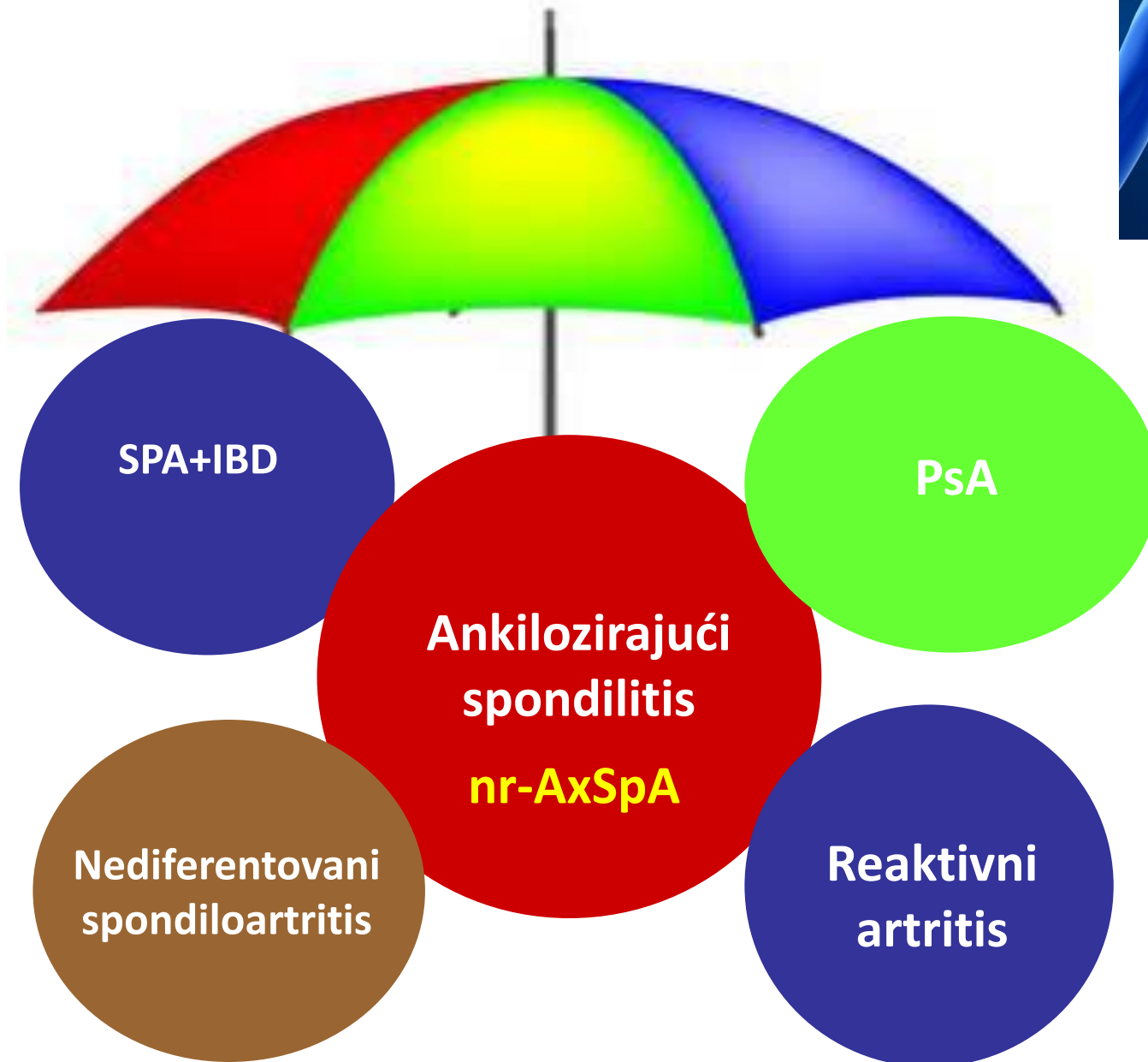
Predsednik radne grupe: Gorica Ristić

Članovi:

**Mirjana Zlatković Švenda, Slađana Živojinović,
Sonja Stojanović, Tanja Janković**

SPONDILO-ARTRITISI

koncept aksijalnog spondiloartritisa – SpA



Zablude o ankilozirajućem spondilitisu

Pogrešno

- Retko oboljenje
- Blago oboljenje
- Mnogo češće oboljevaju muškarci
- Dijagnoza je jednostavna

Tačno

- Učestalost AS/SpA približna RA
- Bolesnici imaju 3 puta češći invaliditet i smanjen kvalitet života
- Samo 2-3 puta učestaliji kod muškaraca
- Dijagnoza AS je teška u ranoj fazi bolesti i često se previdi

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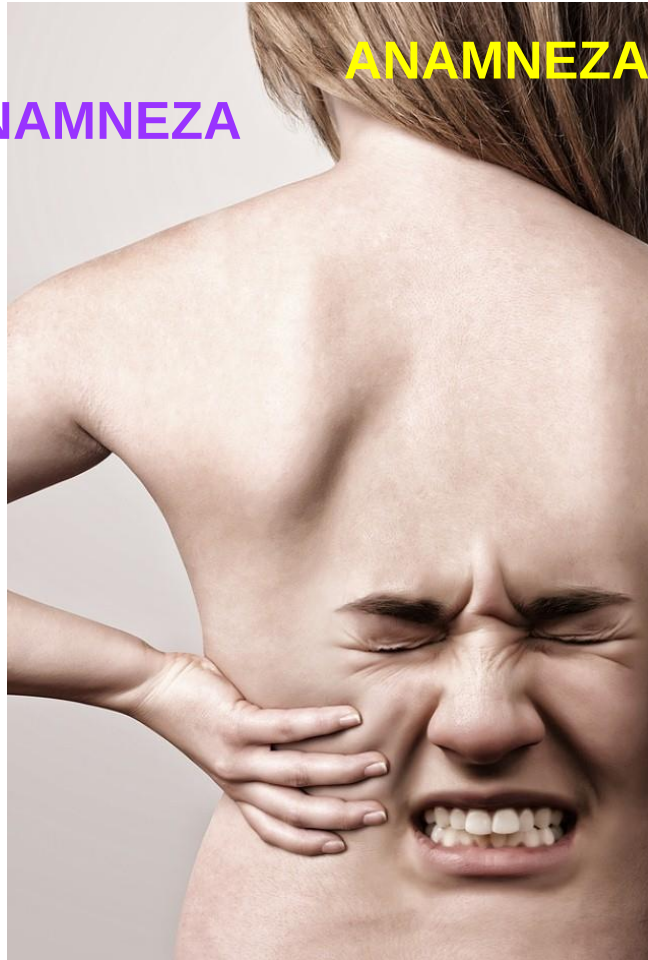
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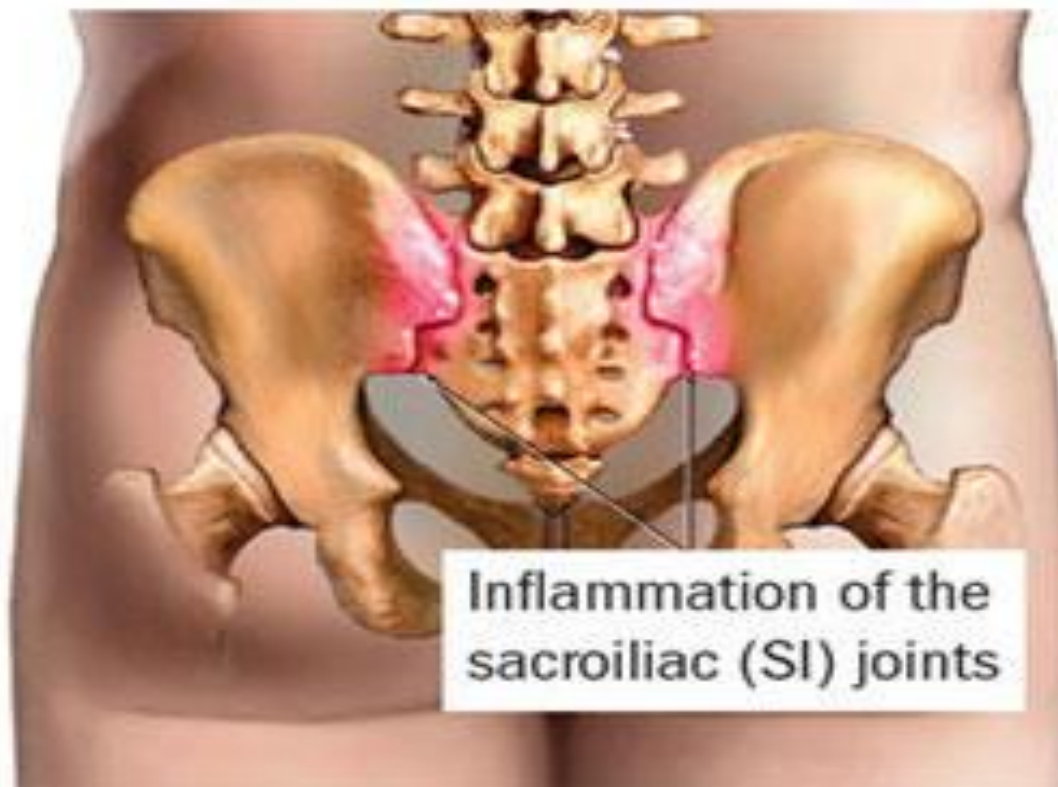
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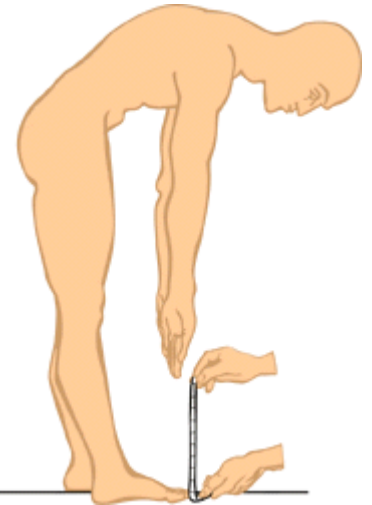
Criteria for inflammatory back pain according to ASAS



Back pain , during at least 3 consecutive months



A woman with blonde hair tied in a ponytail is shown from the back of her head, looking up at a large, diagonal arrangement of the word "PREGLED" in black capital letters. The word is repeated 15 times, creating a staircase effect that descends from the top left towards the bottom right. The background is white, and the woman's hair is a light brown or blonde color.

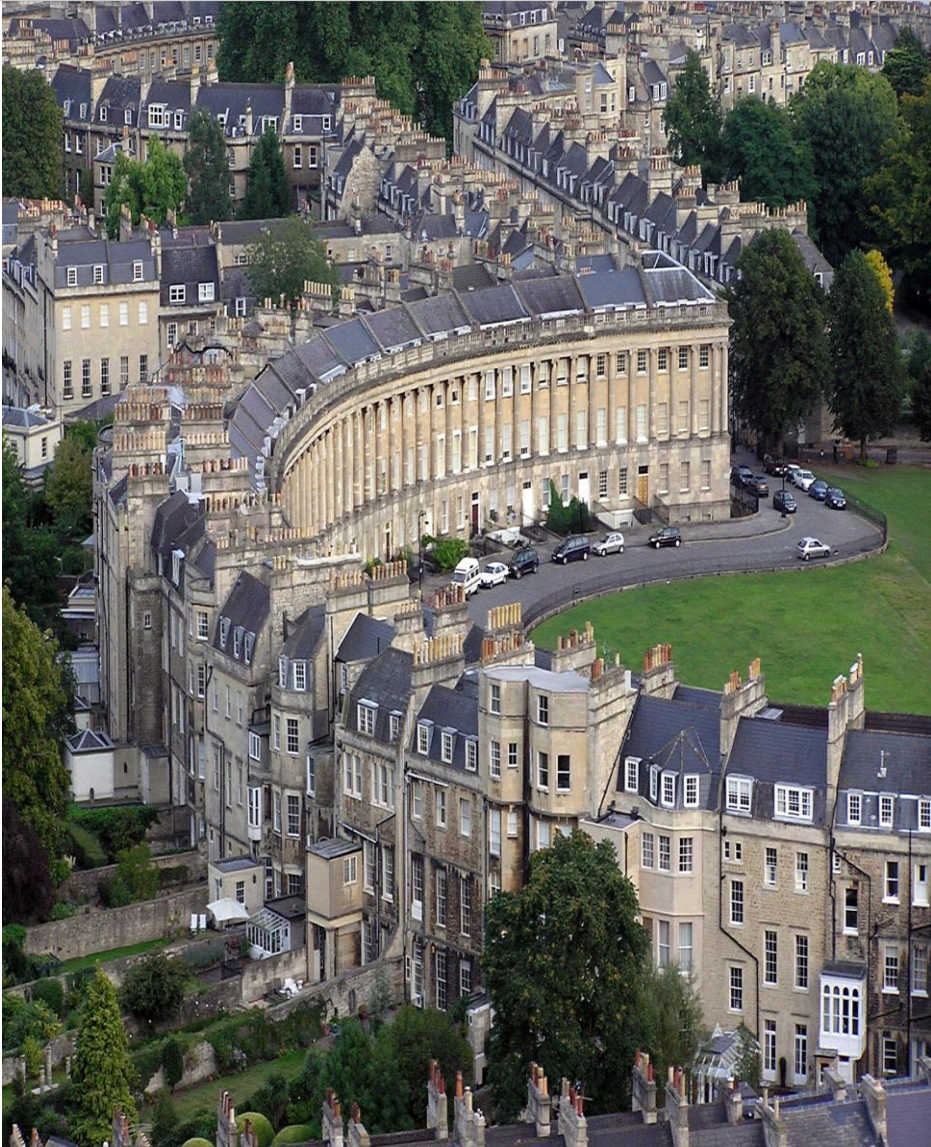






SPONDILOARTRITISI

procena aktivnosti bolesti

An aerial photograph of a historic city, likely Bath, England. The image shows a large, curved, classical-style building with many windows, surrounded by other historic buildings and greenery. The building is a prominent feature in the center of the image.

BASDAI - Bath Ankylosing Spondylitis
Disease Activity Index

BASFI - Bath Ankylosing Spondylitis
Functional Index

BASMI - Bath Ankylosing Spondylitis
Metrology Index

BASG - Bath Ankylosing Spondylitis
Global Score

Bath Ankylosing Spondylitis Disease Activity Index (BASDAI)

- BASDAI – pacijentova subjektivna procena aktivnosti bolesti

■ Procena **5** važnih simptoma SpA:

1. Slabost
2. Bol u kičmi
3. Bol ili otok zglobova
4. Entezitis, upala tetiva ili ligamenata
5. Kvalitet i kvantitet jutarnje ukočenosti (trajanje i težina)

Svi se procenjuju pomoću **visuelne analogne skale (VAS): 0–10 (cm)**
[0 = bez simptoma; 10 = izraženi simptomi].

Bath Ankylosing Spondylitis Functional Index = BASFI

- Grupa od 10 pitanja dizajniranih da **odrede stepen funkcionalog ograničenja**.
- Prvih 8 pitanja: testira **aktivnosti povezane sa anatomskim ograničenjima** zbog bolesti.
- Poslednja 2 pitanja: procenjuju **sposobnost pacijenta da funkcioniše u svakodnevnom životu**.

Numerical rating scale (NRS)



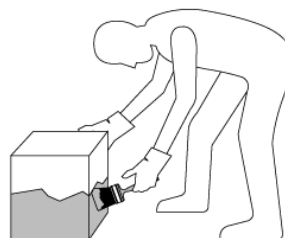
Lako

Nemoguće

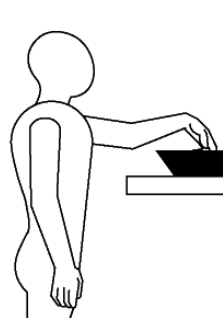
Alternatively, a VAS between 0 and 10 cm or 0 and 100 mm can be used. ASAS prefers to use an NRS.

BASFI (1)

- Obuvanje čarapa bez pomoći ili pomagala
- Savijanje iz struka napred da biste podigli olovku sa poda, bez pomagala



- Dohvatite predmet sa visoke police bez pomoći ili pomagala



- Ustajanje sa stolice bez naslona za ruke, bez korišćenja ruku ili druge pomoći



BASFI (2)

- Stajanje bez oslanjanja u trajanju od 10min bez osećanja nelagodnosti
- Penjanje 12-15 stepenika bez korišćenja rukohvata ili pomoći pri hodu (jedno stopalo na svaki stepenik)
- Ustajanje sa poda iz ležećeg položaja na leđima, bez pomoći



- Gledanje preko ramena bez okretanja tela



BASFI skor:

– Zbir podeljeno sa 10

- Obavljanje fizički zahtevnih aktivnosti (fizioterapijske vežbe, rad u bašti ili sport)
- Obavljanje celodnevni aktivnosti kod kuće ili na poslu

Bath Ankylosing Spondylitis Metrology Index = BASMI

- 5 kliničkih mera za procenu pokretljivosti kičmenog stuba
 - Stepen lateralne fleksije
 - Distanca tragus-zid
 - Lumbalna fleksija (modifikovani Šober)
 - Intermaleolarna distanca
 - Cervikalna rotacija

Pokretljivost kičme – Šoberov test



- Markirati mesto između dve zadnje gornje ivice ilijačne kosti
- Markirati drugo mesto 10 cm iznad prvog
- Pacijent se savije unapred
- Razmak između 2 markirana mesta je normalno veći od 15 cm

Pokretljivost kičme - laterofleksija



- Kičma i pete su prislonjeni uz zid
- Meri se distanca između srednjeg prsta i poda
- Pacijent se savija u stranu bez savijanja kolena i ponavlja se merenje
- Razlika od preko 10 cm je normalna

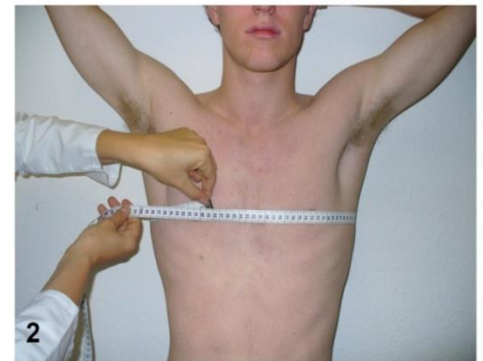
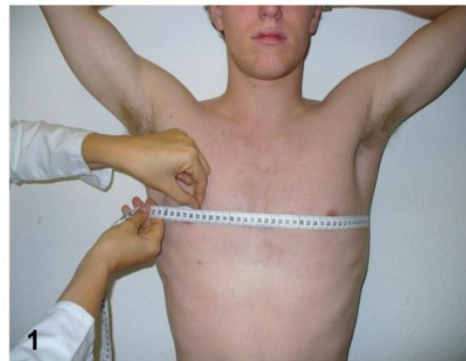
Pokretljivost kičme



- Kičma i pete su prislonjeni uz zid
- U standardnom položaju
- Pacijent oslanja glavu na zid
- Meri se razmak od okcipitalne kosti do zida (u cm) i obostrano od tragususa do zida (srednja vrednost u cm)

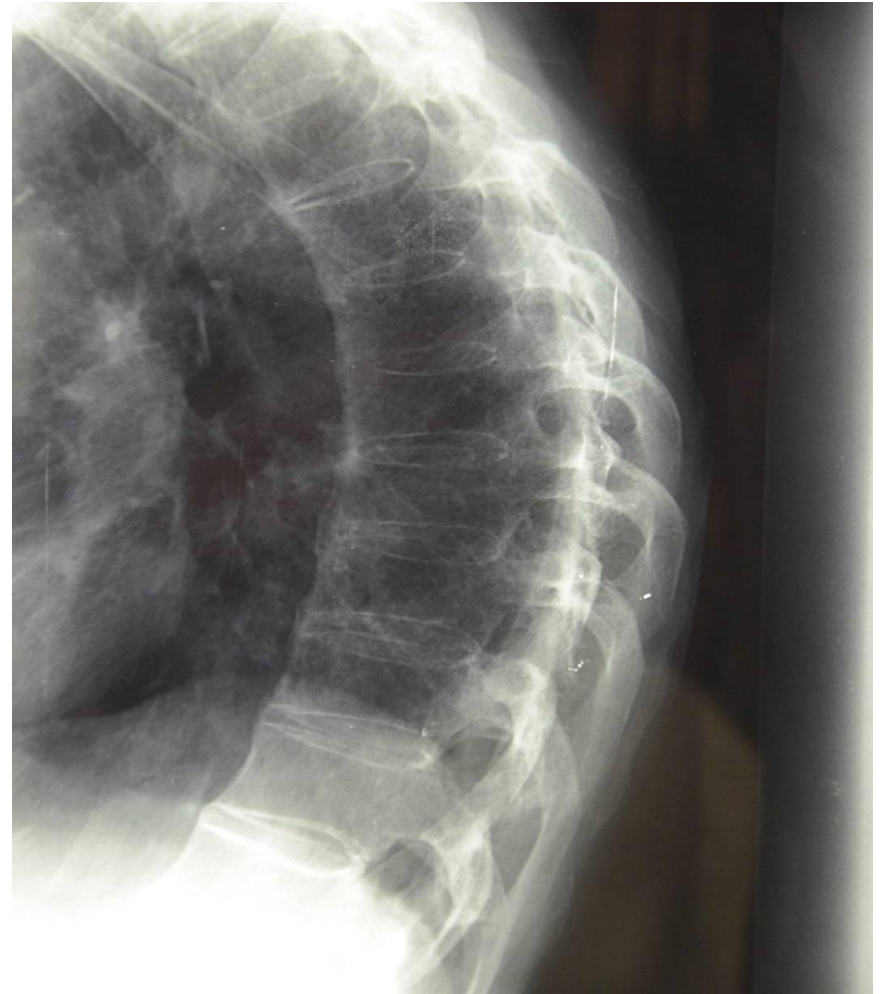
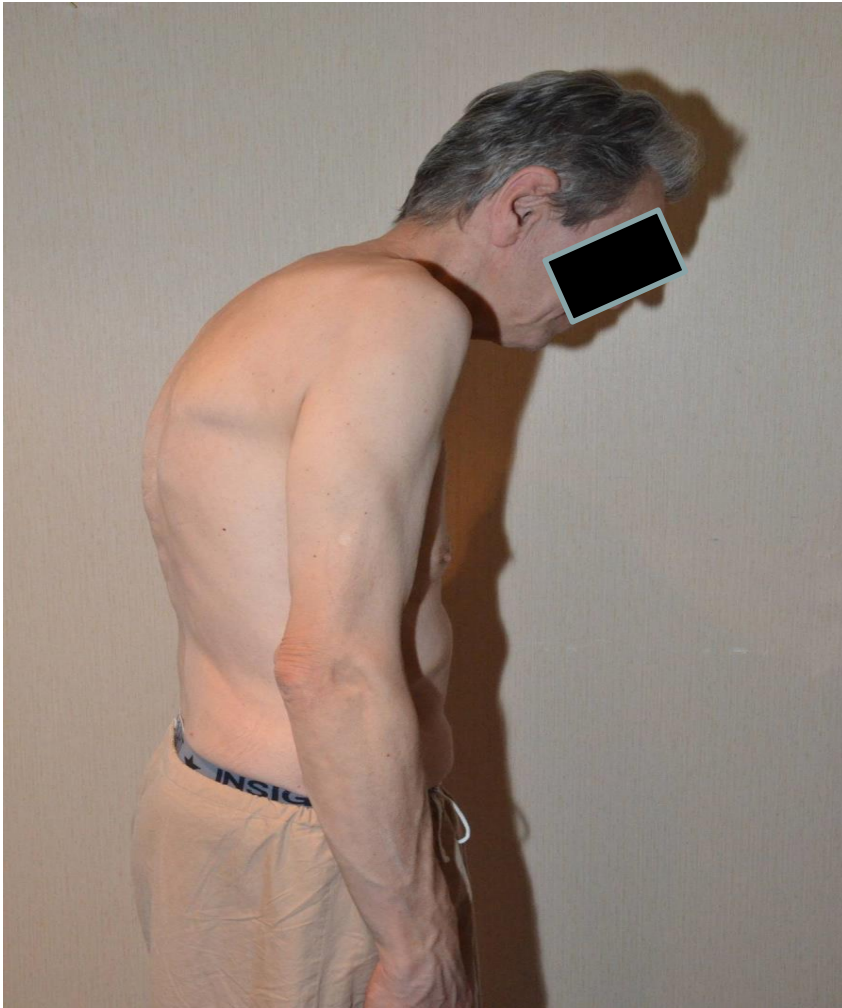
Prilagođeno prema: ASAS Priručnik, Ann Rheum Dis 2009; 68 (Suppl II)

Pokretljivost kičme – index disanja



- Ruke pacijenta su iznad glave
- Meri se u visini 4-og interkostalnog prostora
- Beleži se razlika između max inspirijuma i ekspirijuma
- Upisuje se srednja vrednost nakon 2 merenja

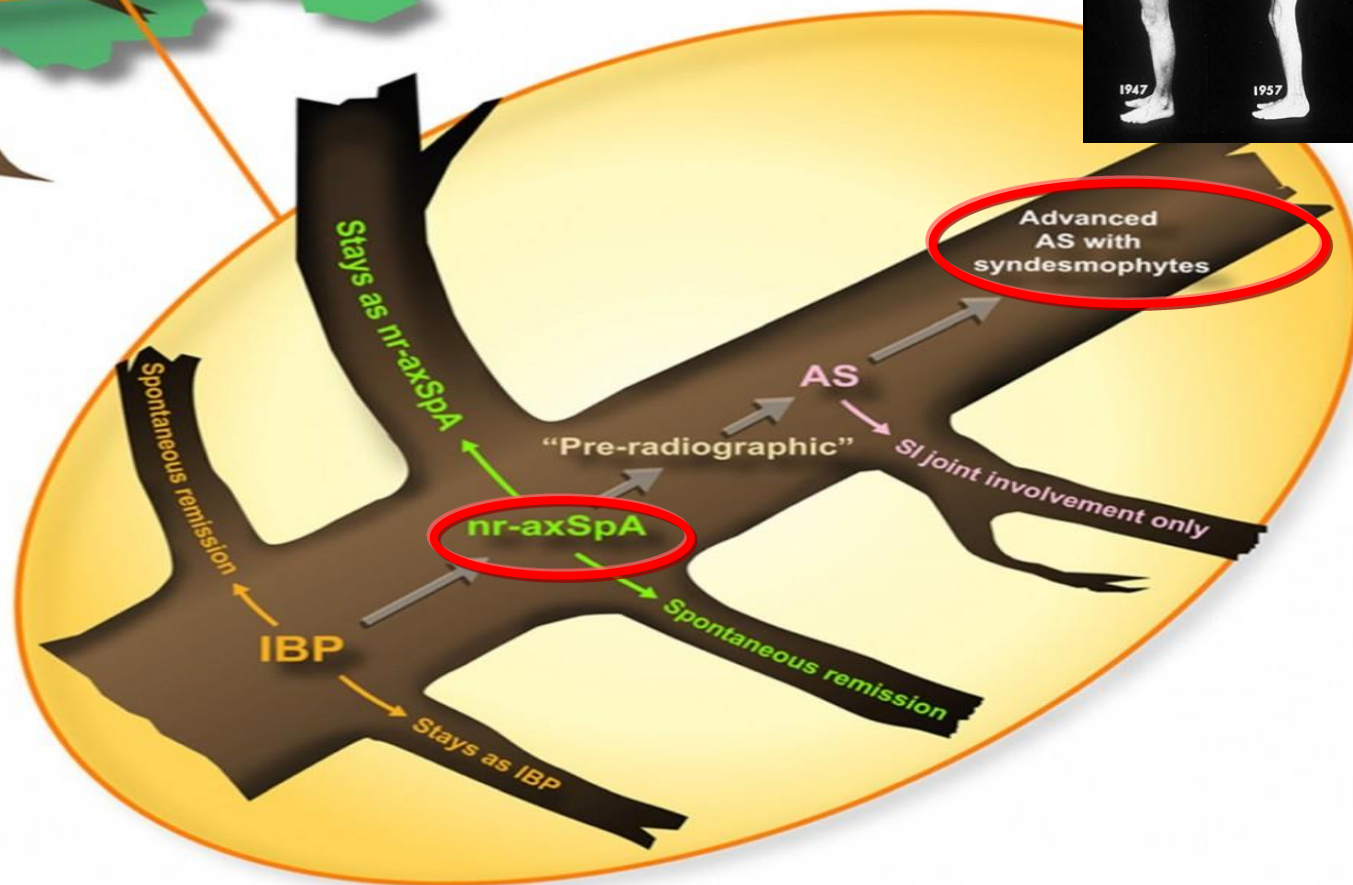
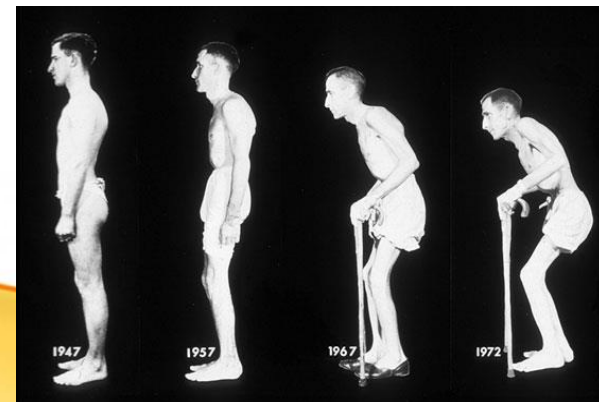
Bolesnik Đ. S. , 59 godina



BASMI 7, BASFI 8, BASDAI 4.65.

RI 1 cm, Šober 1 cm, brada- sternum 5 cm, C rotacija 0°, tragus –zid 31cm, prsti- pod 61cm.

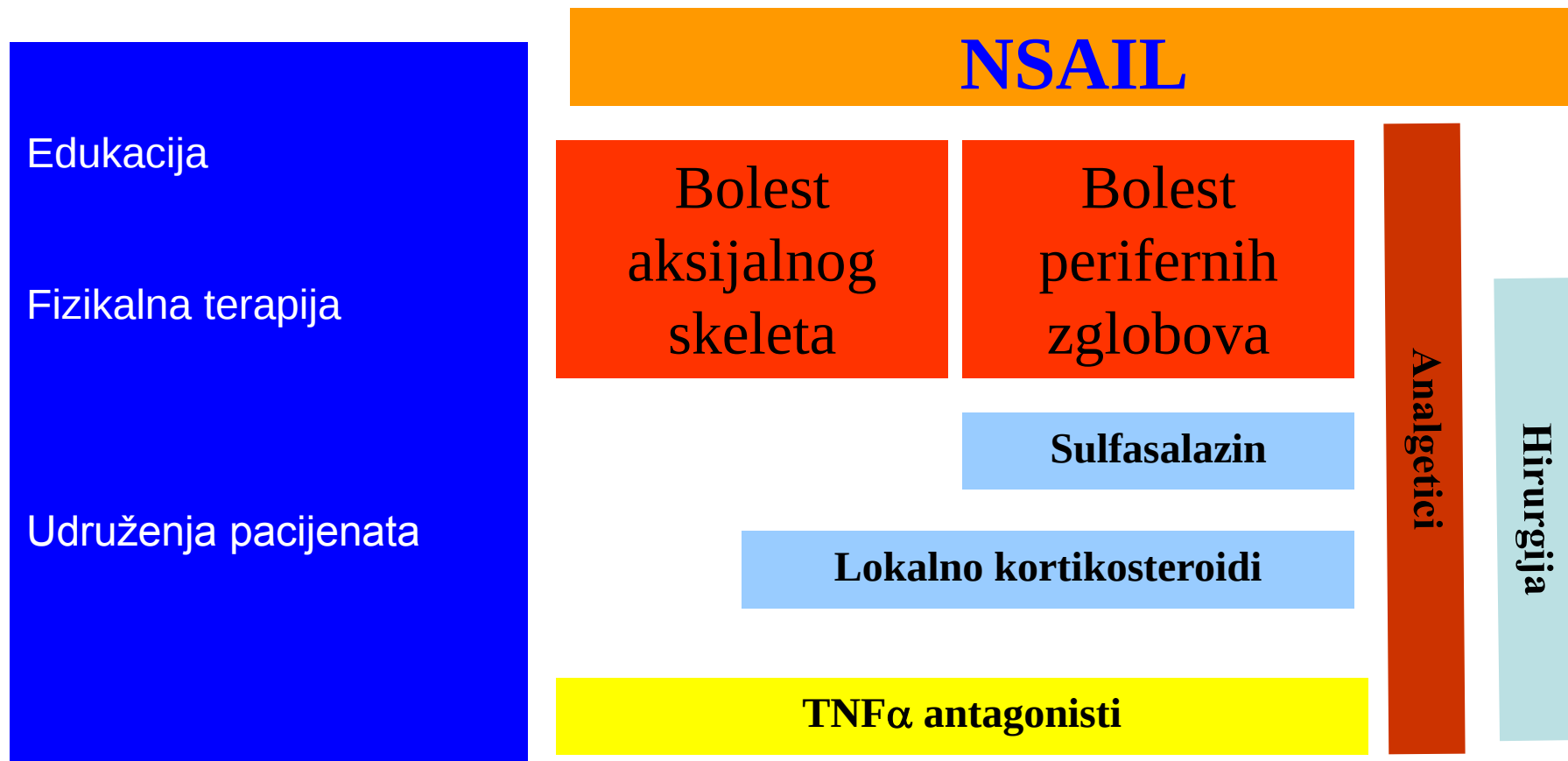
Put od zapaljenskog bola u kičmi do manifestnog spondiloartritisa



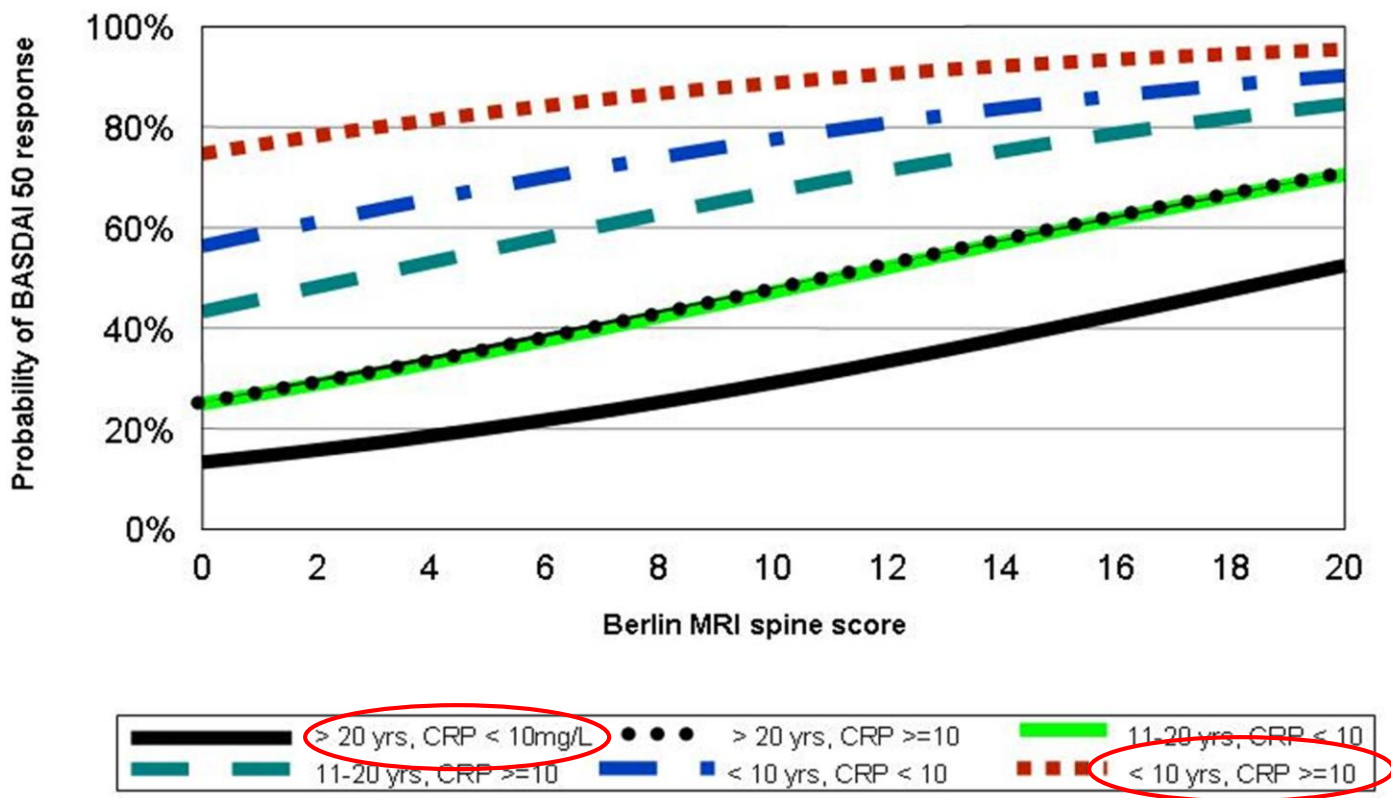
ASAS/EULAR recommendations for the management of ankylosing spondylitis

J Zochling, D van der Heijde, R Burgos-Vargas, E Collantes, J C Davis, Jr, B Dijkmans, M Dougados, P Géher, R D Inman, M A Khan, T K Kvien, M Leirisalo-Repo, I Olivieri, K Pavelka, J Sieper, G Stucki, R D Sturrock, S van der Linden, D Wendling, H Böhm, B J van Royen and J Braun

Ann Rheum Dis 2006;65:442-452; originally published online 26 Aug 2005;
doi:10.1136/ard.2005.041137



Predictive Value of a Combination of Parameters Indicating BASDAI 50 Response to Anti-TNF α -Therapy



Predicting the outcome of ankylosing spondylitis therapy

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Ann Rheum Dis 2011;**70**:973–981.

Matrix presentation of outcome rates of different patient subpopulations (%) defined by the categorised predictor variables:

- Age
- BASFI
- Enthesitis
- CRP
- HLA-B27



Smolen JS, et al. *Ann Rheum Dis* 2014;**73**:6–16. 



Recommendation

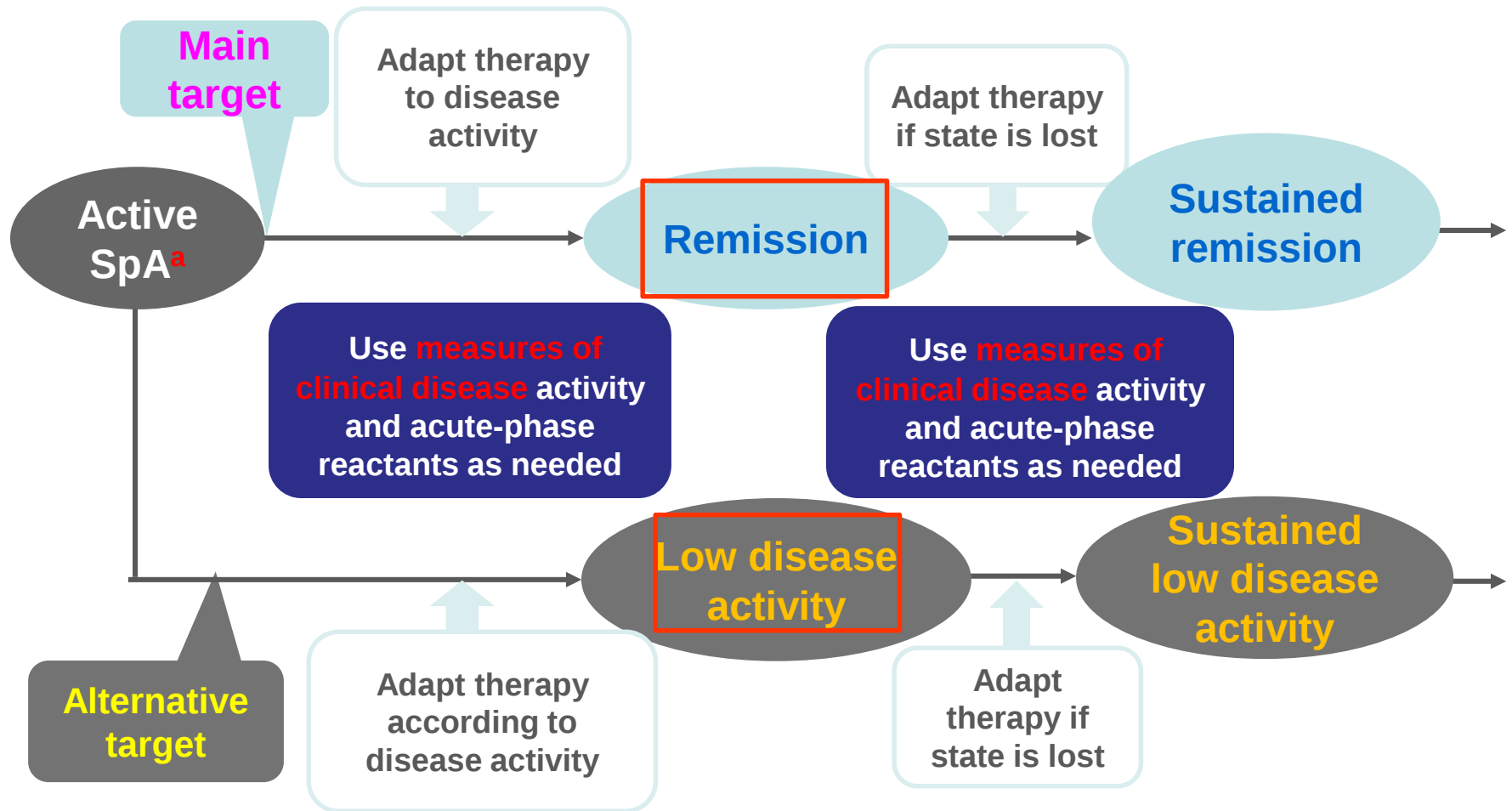


EXTENDED REPORT

Treating spondyloarthritis, including ankylosing spondylitis and psoriatic arthritis, to target: recommendations of an international task force

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Algorithm to treat SpA to target



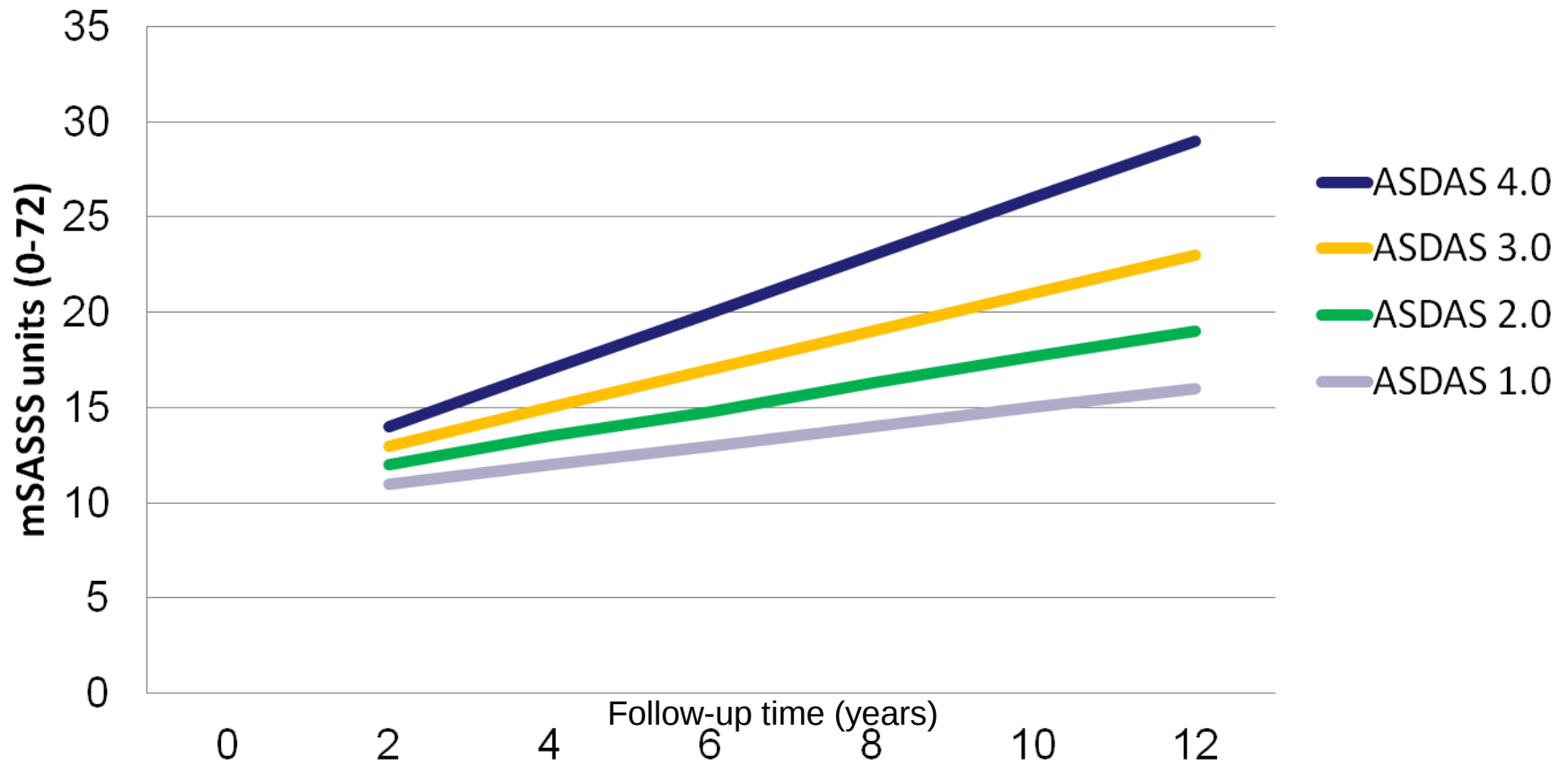
^aAxial SpA, peripheral SpA or PsA

Ankylosing Spondylitis Disease Activity Score (ASDAS)

Parametri koji se koriste za izračunavanje ASDAS skora:

1. Ukupan **nivo bola** u kičmi (BASDAI pitanje 2)
2. **Pacijentova globalna procena (VAS)**
3. Ukupan **nivo bola/otoka** u zglobovima? (BASDAI pitanje 3)
4. Trajanje jutarnje ukočenosti (BASDAI pitanje 6)
5. CRP u mg/l ili brzina sedimentacije eritrocita

Veća aktivnost bolesti dovodi do većeg oštećenja u ranoj fazi AS: rezultati iz OASIS



ASDAS počinje da se koristi u Srbiji za merenje aktivnosti SpA?





1947



1957



1967



1972

Rana Dg i Th.....preveniraju ireverzibilna oštećenja