



EERSTELIJNSSYMPOSIUM

Aanpak van **wervelkolomproblemen** in de Leuvense ziekenhuizen

ZATERDAG 6 MAART 2021

ARTSEN UZ LEUVEN IN HET ZORGPROGRAMMA

NCH



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Dr. Pierre Moens



Dr. Sam Thomas

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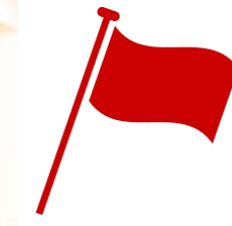
Dr. Sofie Rummens

OVERZICHT: PLAATS VAN CHIRURGIE

« During surgery,
we can only
change
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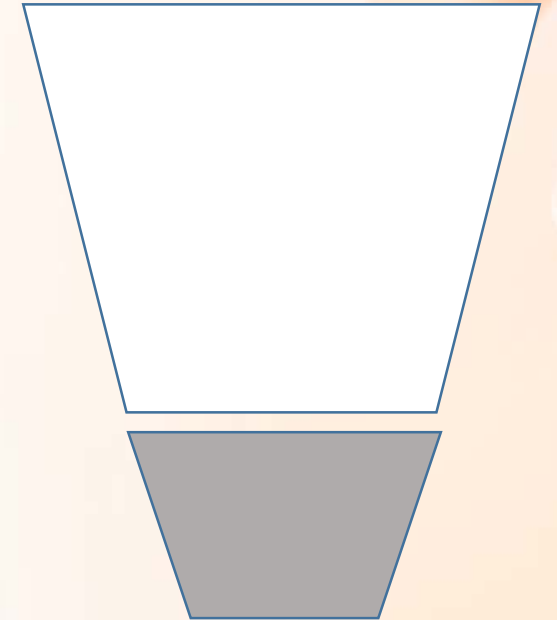
- Rode vlaggen

- Neuro deficit
- Trauma
- Tumor
- Infectie



- Indicaties

- Clear zone
 - Neurocompressie
 - Mechanisch
 - Instabiliteit
 - Malalignement
- Grey zone



RED FLAGS POSITIVE

Red Flags- Low Back Pain

Red Flags – low back pain

- Indicate possible serious pathology
- Indicate the need for further investigation and, possibly, specialist referral

Possible fracture

- * Major trauma
- * Minor trauma in elderly or osteoporotic patient

Possible tumour/infection

- * Age < 20 or > 50 years
- * History of cancer
- * Constitutional symptoms (fever, chills, weight loss)
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- * Pain worse at night or when supine

Possible significant neurological deficit

- * Severe or progressive sensory alteration or weakness
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NB: Presence of red flags in acute low back pain suggests the need for further investigation and possible specialist referral as part of overall strategy. If no red flags present, it is safe to reassure the patient and move ahead with a multimodal management approach.

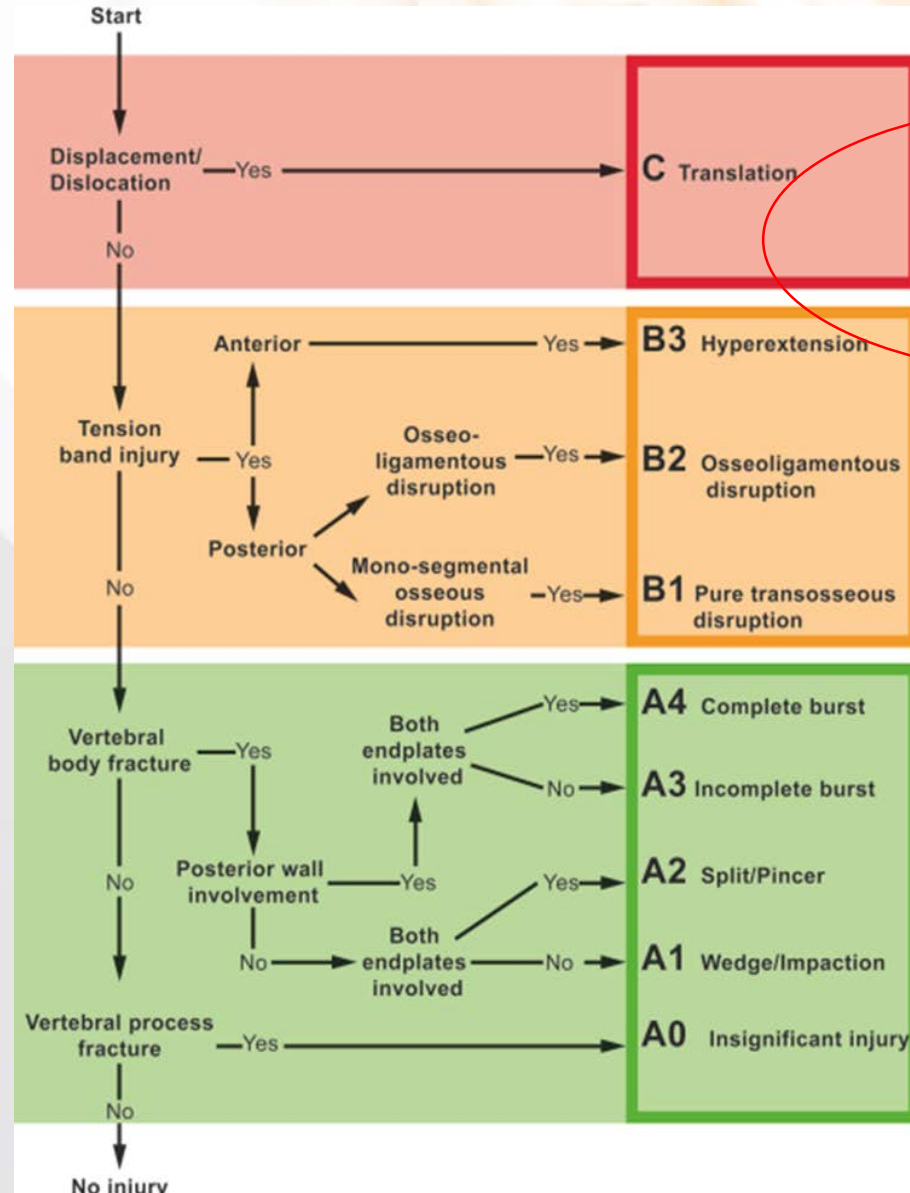
MAJOR TRAUMA

- “Advanced trauma life support”
- Prevention of secondary (neuro)damage
- Important considerations
 - High E versus low E
 - Age
 - Associated lesions
 - Neurology (ASIA)
 - Stability of fracture (AO classification)



MAJOR TRAUMA

- Fracture Stability



MAJOR TRAUMA

- Neurology

Tabel 2: ASIA Impairment scale

A	compleet	geen sensibele of motorische functie is behouden in de sacrale segmenten S4-S5
B	incompleet	sensibele maar geen motorfunctie is behouden onder het neurologisch niveau en omvat de sacrale segmenten S4-S5.
C	incompleet	motorfunctie is behouden onder het neurologisch niveau en meer dan de helft van de sleutelspieren onder het neurologisch niveau hebben een spierkracht minder dan graad 3
D	incompleet	motorfunctie is behouden onder het neurologisch niveau en ten minste de helft van de sleutelspieren onder het neurologisch niveau hebben een spierkracht groter of gelijk aan graad 3
E	normaal	sensibele en motorfuncties is normaal

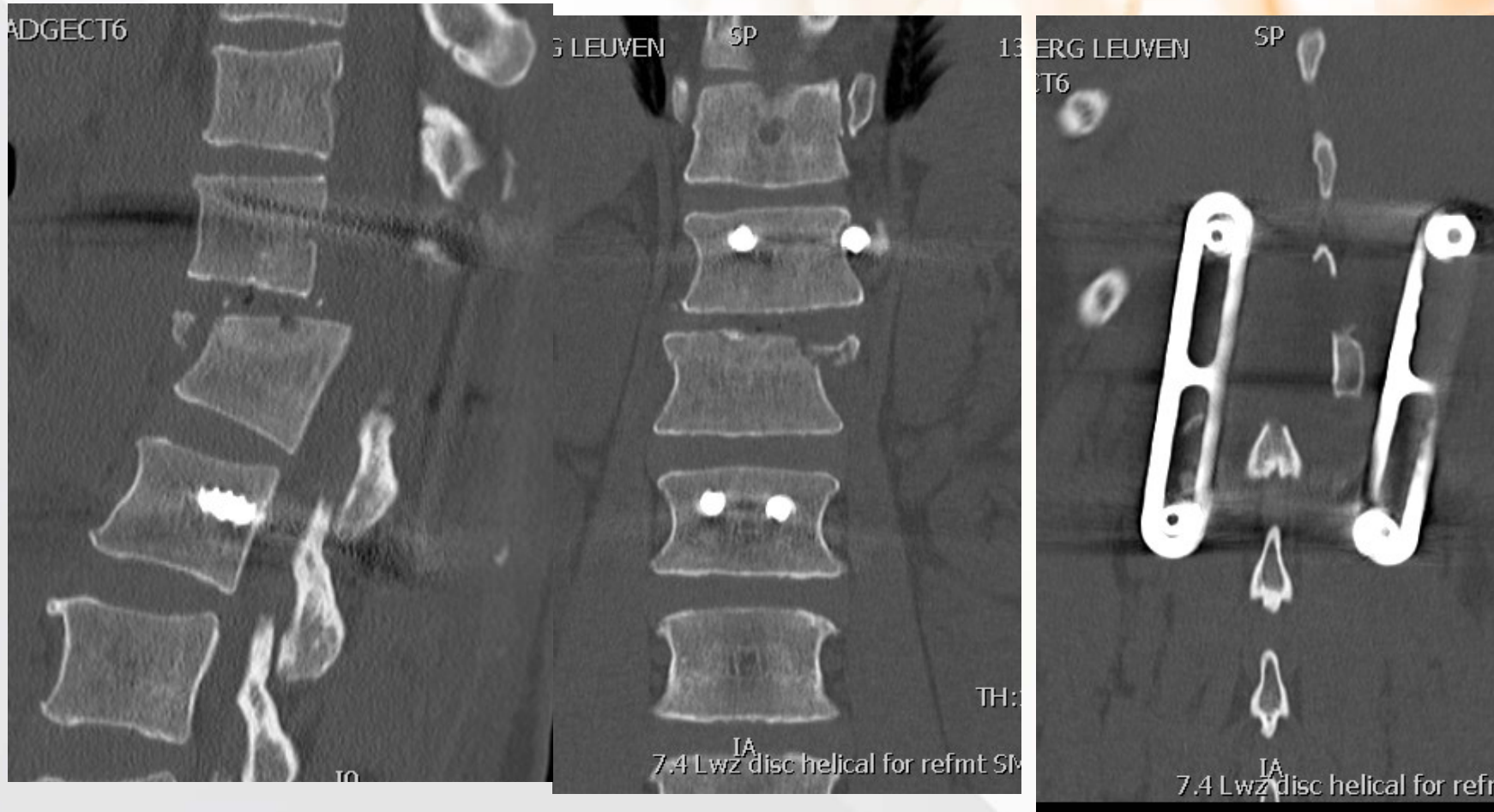




Table 31.1 Evidence of guideline

Topic	Level of AANS/CNS recommendation	Guideline/recommendation
Hypotension	Level III	Correction of hypotension to systolic blood pressure >90 mmHg as soon as possible
	Level III	Maintenance of mean arterial blood pressure between 85 and 90 mmHg for 7 days
Hypoxia	None	Hypoxia (PaO ₂ <60 mmHg or O ₂ saturation <90%) should be avoided [3]
ICU monitoring	Level III	SCI patients should be managed in an ICU setting with cardiac, hemodynamic, and respiratory monitoring to detect cardiovascular dysfunction and respiratory insufficiency
Immobilization	Level II	Patients with SCI or suspected SCI (except in penetrating injury) should be immobilized
	Level III	Spinal immobilization should be performed with rigid cervical collar and supportive blocks on a backboard with straps
Specialized centers	Level III	SCI patients should be transferred expediently to specialized centers of SCI care
Examination	Level II	The ASIA ISNCSCI examination should be performed and documented
Imaging	Level I	No cervical imaging is required in awake trauma patients that have no neck pain/tenderness, normal neurological examination, normal range of motion, and no distracting injuries
	Level I	CT is recommended in favor of cervical X-rays
	Level I	CT angiography is recommended in patients who meet the modified Denver screening criteria [4]
Neuroprotection	Level I	Methylprednisolone is not recommended ^a
Spinal cord decompression	None	Surgical decompression prior to 24 h after SCI can be performed safely and is associated with improved neurological outcome [5**]
	Level III	Early closed reduction of fracture/dislocation in awake patients without a rostral injury is recommended, and pre-reduction MRI does not appear to influence outcome

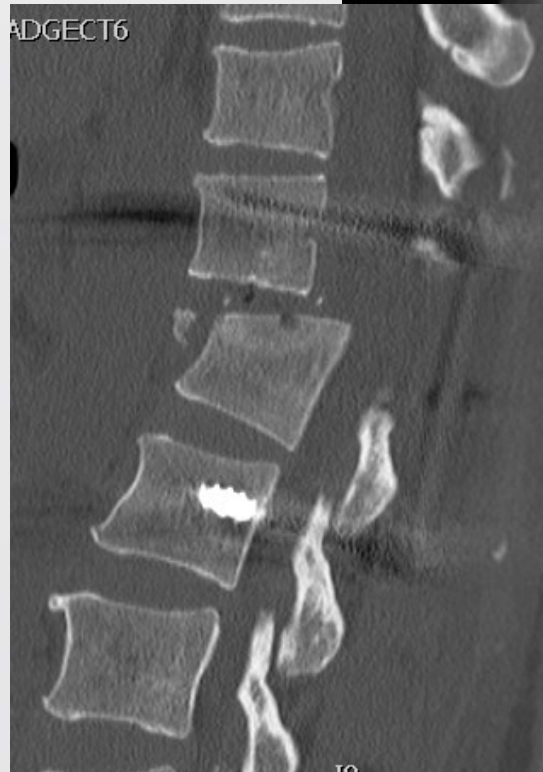
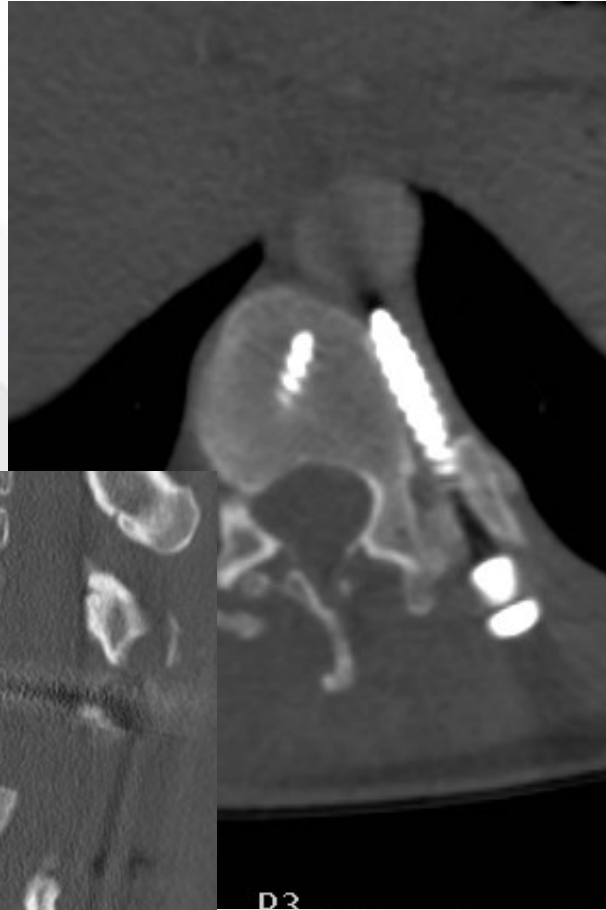
MAJOR TRAUMA



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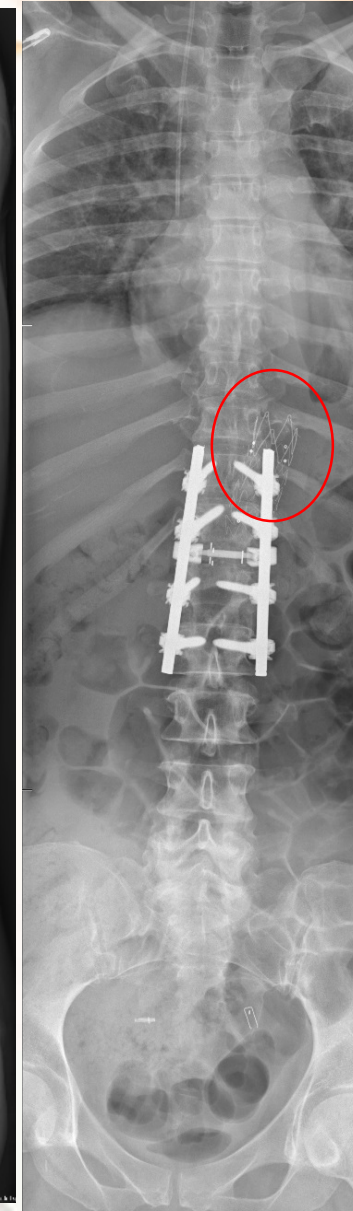
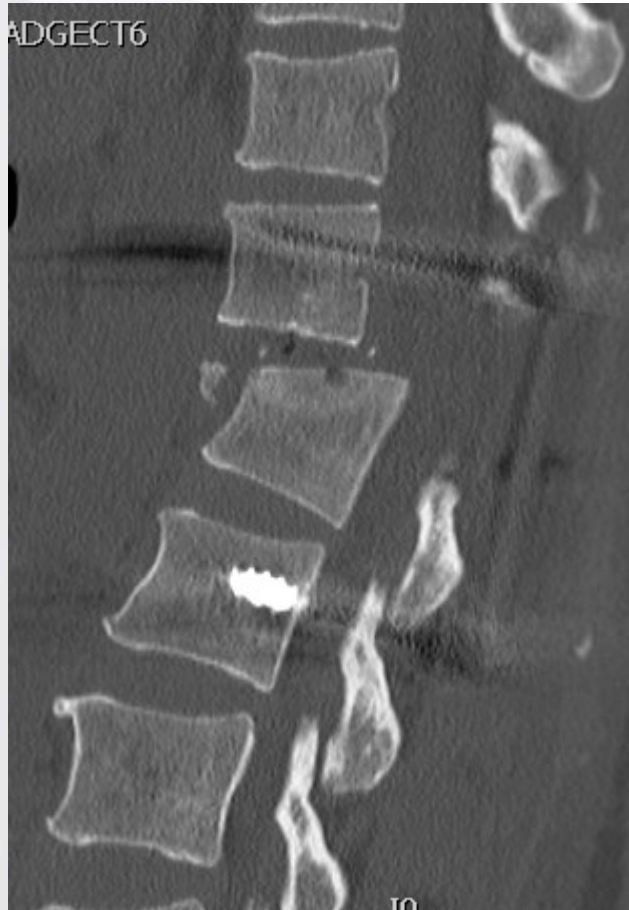
MAJOR TRAUMA



• Need for specialized centres for high energy spinal trauma

- Trauma centre incl.
 - 24h/24h spinesurgeon
 - Dedicated nurse staff
 - 24h/24h access to full technical support (implants, navigation, IONM,...)
- ICU (neuro-highcare)
- SCI rehab

MAJOR TRAUMA



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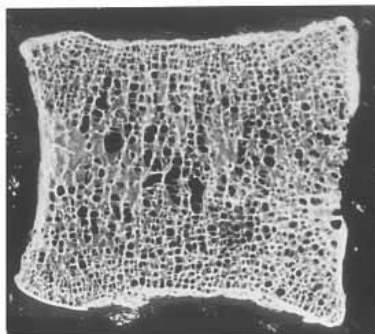
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MINOR TRAUMA

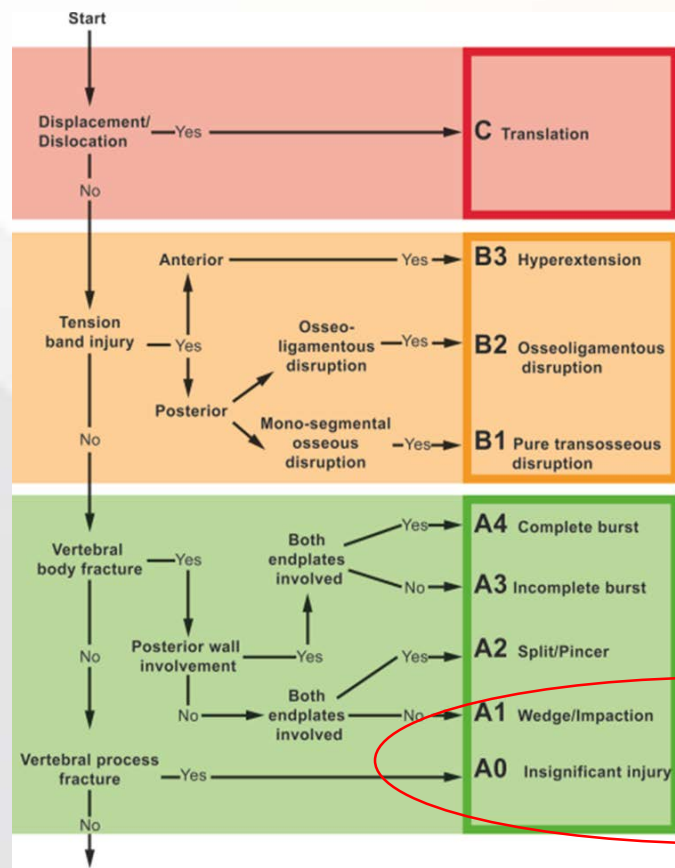
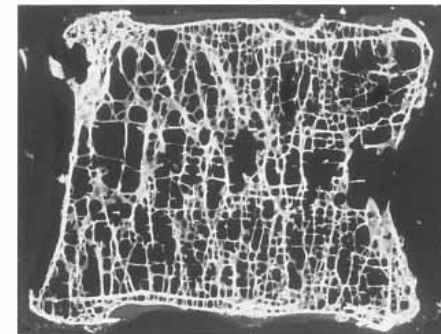
- Osteoporosis
- Pathologic fracture
- Ankylosing spondylitis (**B!**)

<< PERCUSSION PAIN OF SPINE >>

L2, 37y.o. male

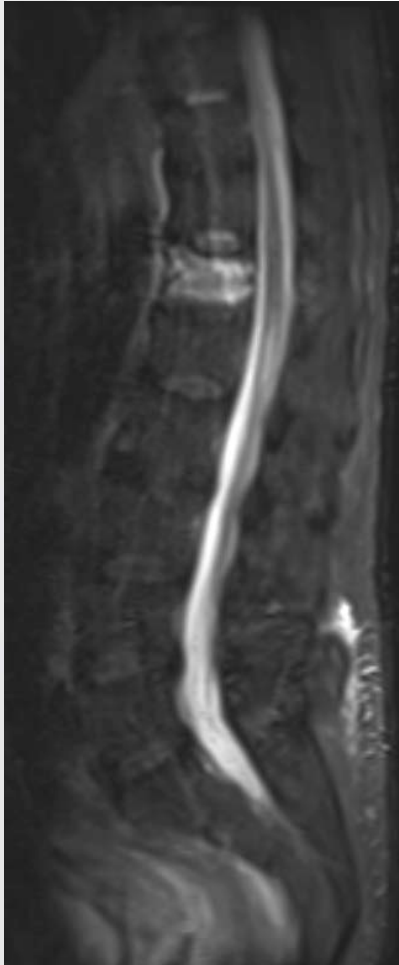


L2, 75y.o. female



MINOR TRAUMA

- Ankylosing spondylitis



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Possible fracture	Possible tumour/infection	Possible significant neurological deficit
<ul style="list-style-type: none">• * Major trauma* Minor trauma in elderly or osteoporotic patient	<ul style="list-style-type: none">* Age < 20 or > 50 years* History of cancer* Constitutional symptoms (fever, chills, weight loss)* Recent bacterial infection* IV drug use* Immunosuppression* Pain worse at night or when supine	<ul style="list-style-type: none">* Severe or progressive sensory alteration or weakness* Bladder or bowel dysfunction * On physical examination: evidence of neurological deficit (in legs or perineum in the case of low back pain)

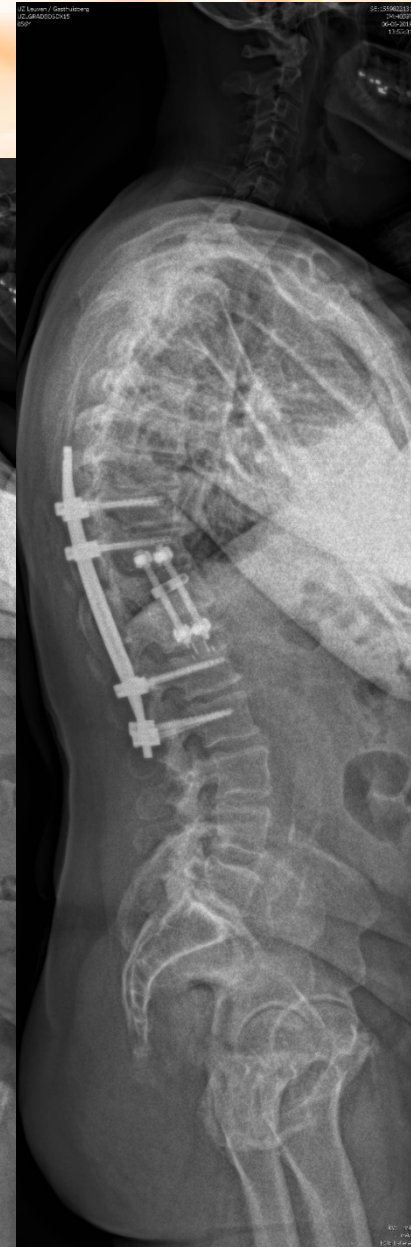
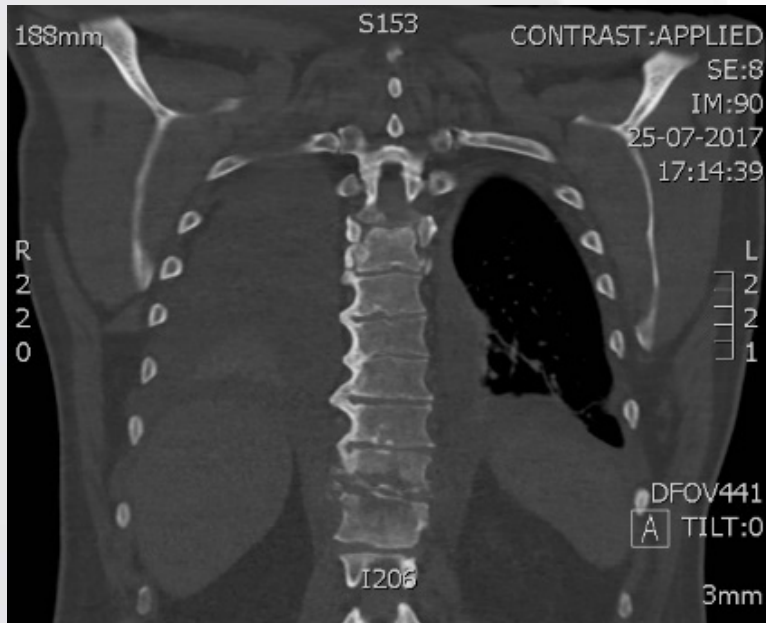
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INFECTION

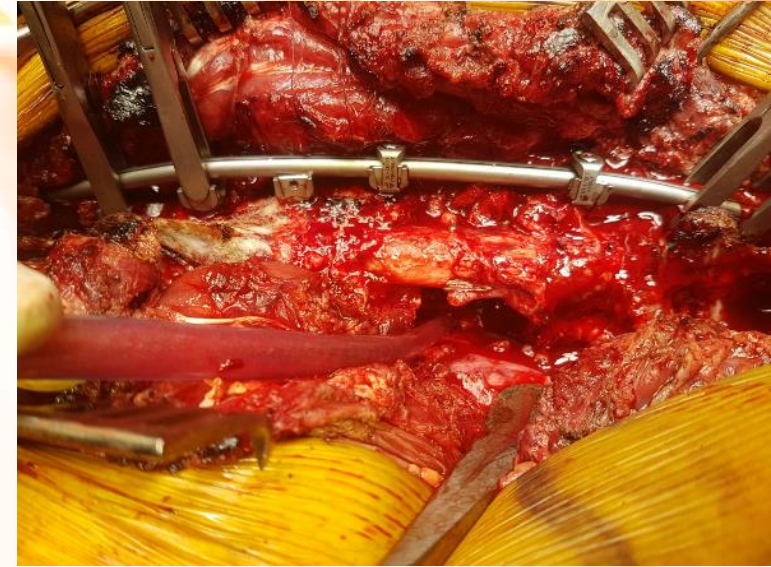
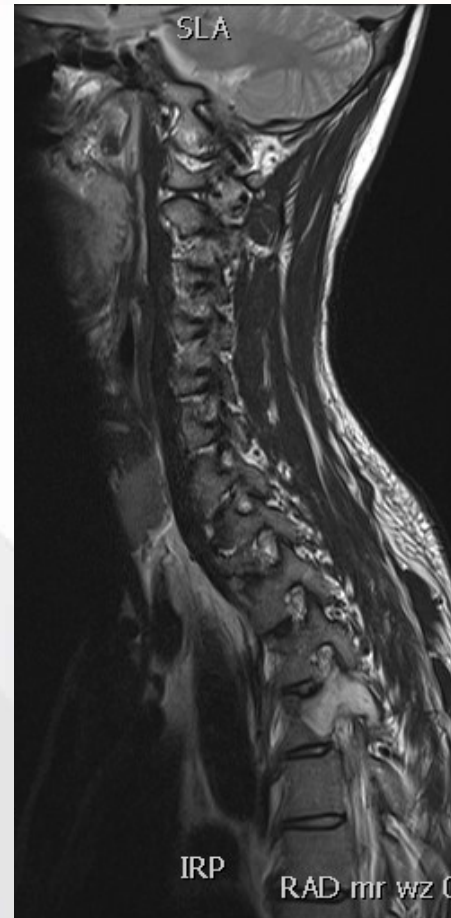
- Biopsy before AB!!!
- Surgery in case of
 - Neurology
 - Instability





TUMOR

- Previous Medical History?
- Meta or primary tumor?
 - Don't burn bridges in case of primary tumors!
 - IN SOME CASES EN BLOC RESECTION IS POSSIBLE



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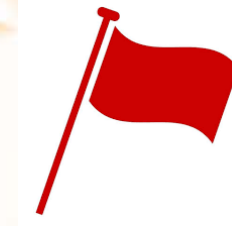
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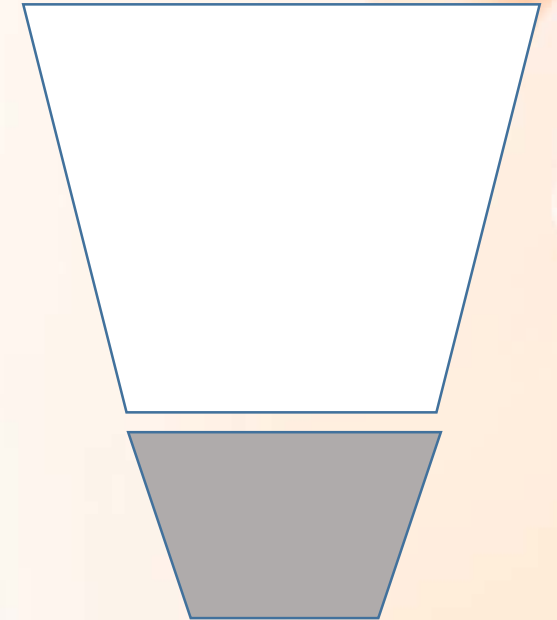
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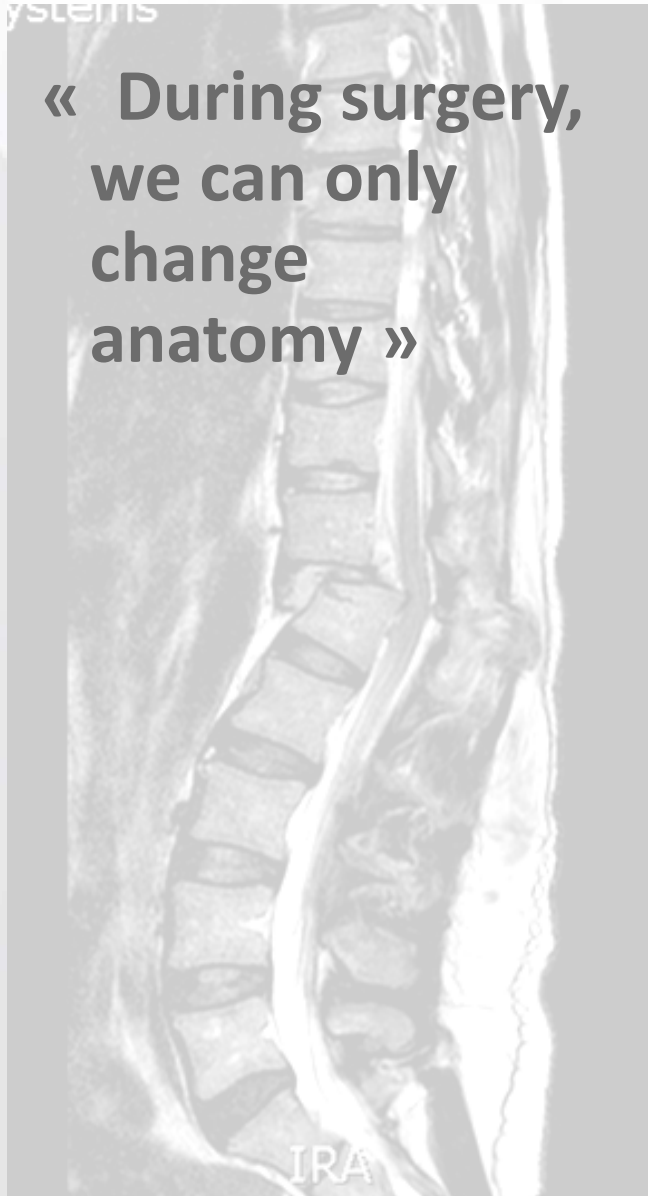


48Y. MECHANICAL LBP. L5 SCIATIC PAIN STANDING/WALKING

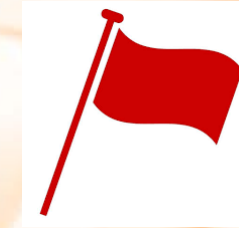


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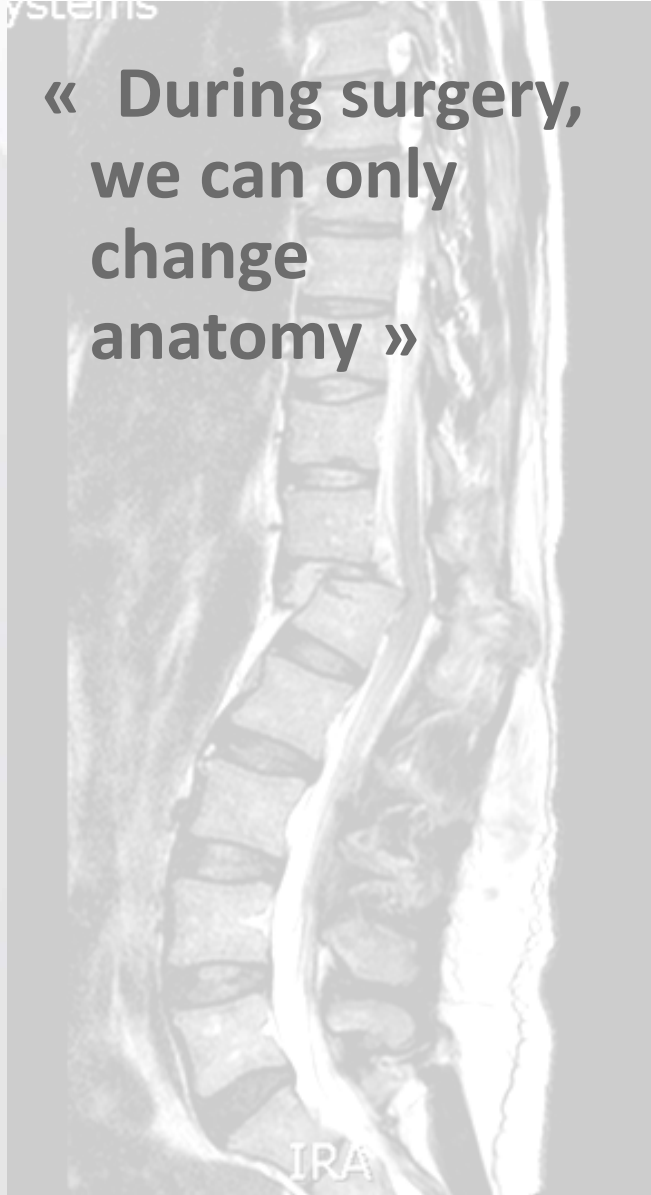
+ low/moderate
functional impact

Primary **specialized** NON-operative treatment

THANK YOU FOR YOUR ATTENTION

systems

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- QUESTIONS?