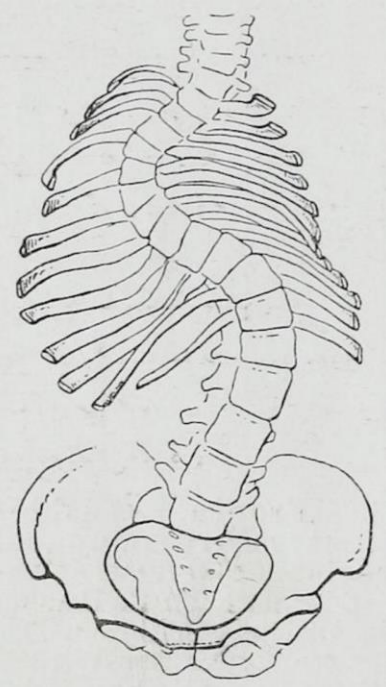
Frakturen der degenerativen Lendenwirbelsäule



G.Grabmeier, N. Tahiraga, M. Babarro- Gonzalez, E. Hecking, M.Mousavi

Wirbelsäulenteam
Abteilung für Orthopädie und Traumatologie

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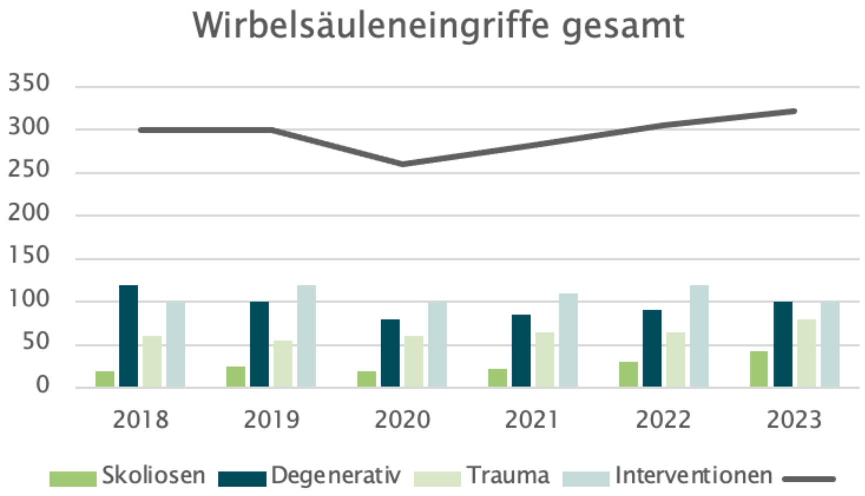
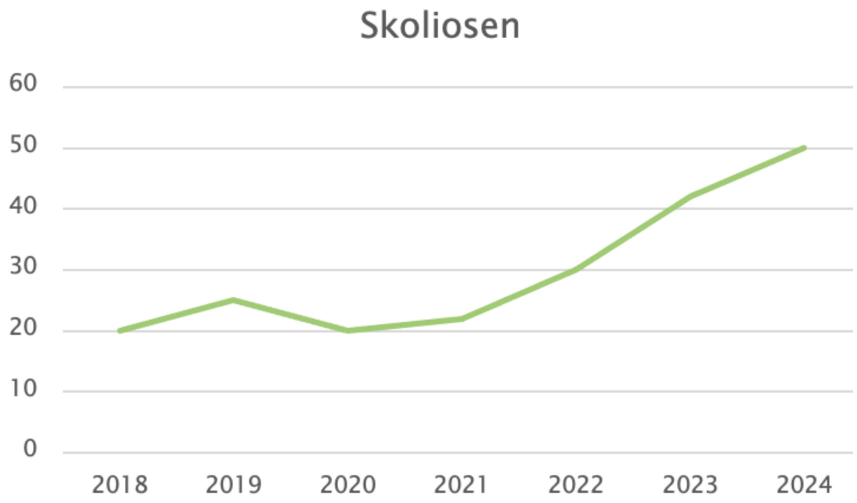
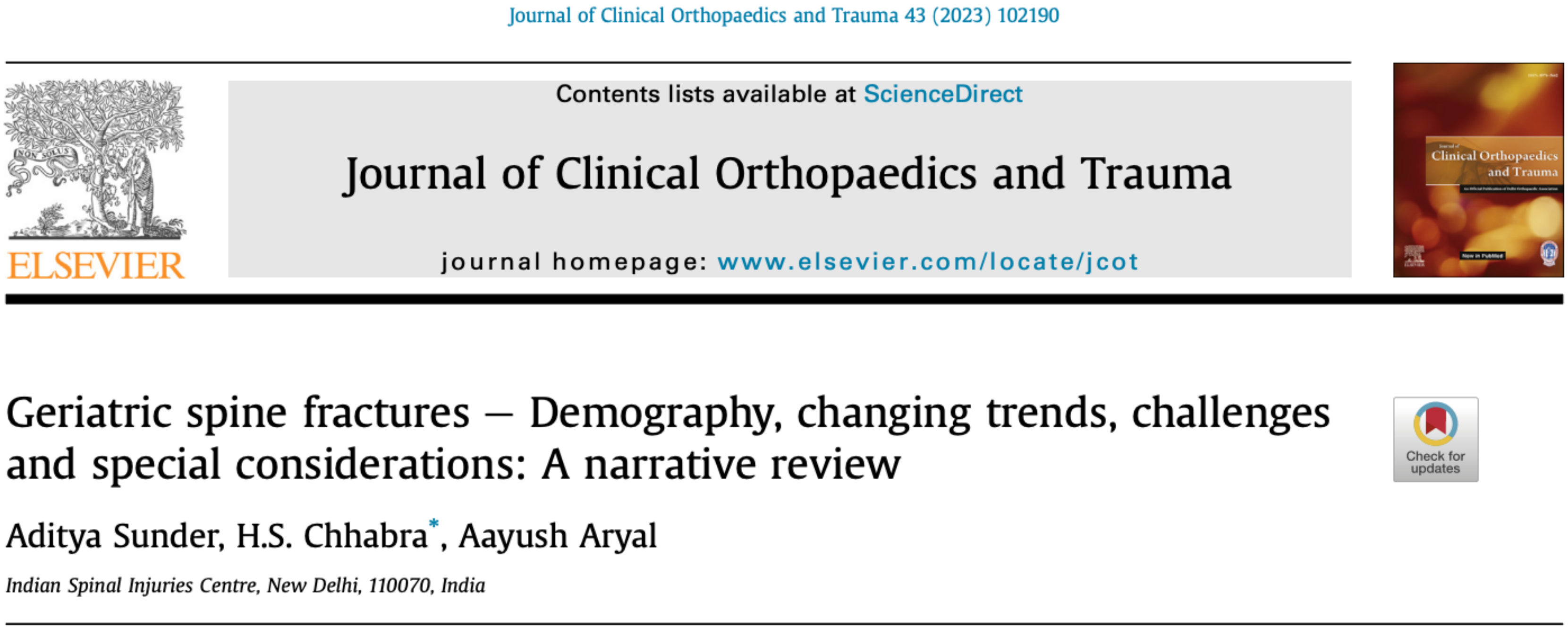

Wirbelsäuleneingriffe gesamt


Skoliosen



Journal of Clinical Orthopaedics and Trauma 43 (2023) 102190

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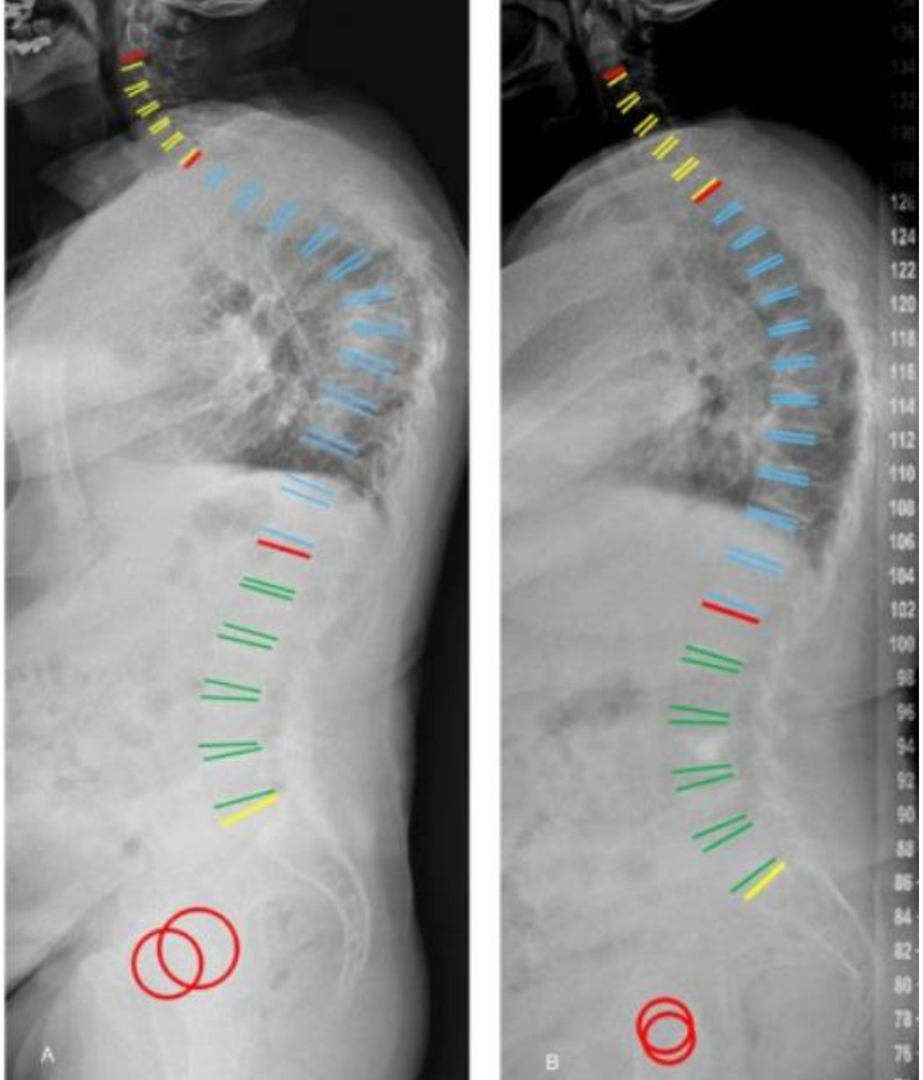
journal homepage: www.elsevier.com/locate/jcot

Geriatric spine fractures – Demography, changing trends, challenges and special considerations: A narrative review

Aditya Sunder, H.S. Chhabra*, Aayush Aryal

Indian Spinal Injuries Centre, New Delhi, 110070, India

- Aufgrund demografischer Entwicklungen ist die Wirbelkörperfraktur einer der häufigsten Frakturen des älteren Menschen
- 25 % Zunahme von osteoporotischen Frakturen in der EU von 2014-34
- Hüftnahe Fx ->niedrige Incidenz zwischen 40. – 70.LJ
- Wirbelkörperfx Inzidenz steigt ab 5o.LJ
- 30-40% aller Frauen ab 70.LJ
- 30 % sind symptomatisch
- Nahezu ein Drittel sind konservative Therapieversager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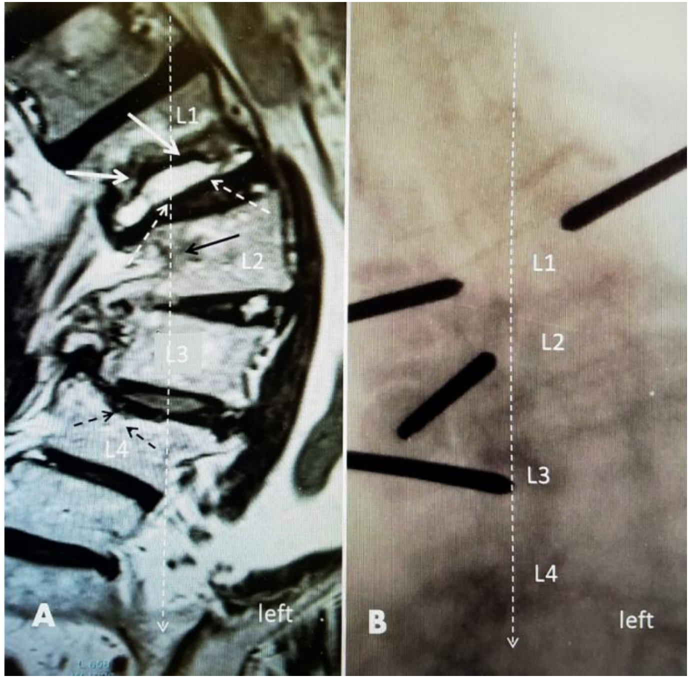
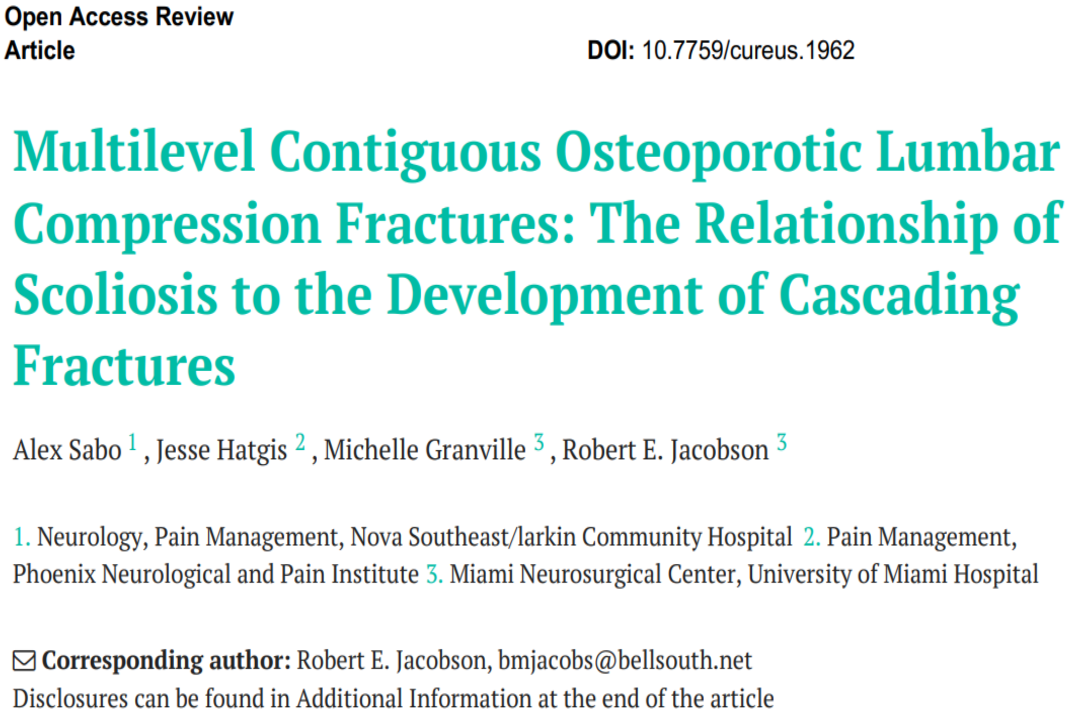
Tsuda T (2017) Epidemiology of fragility fractures and fall prevention in the elderly: a systematic review of the literature. Curr Orthop Pract 28:580-585. https://doi.org/10.1097/BCO.00000




Open Access Review Article

DOI: 10.7759/cureus.1962

Multilevel Contiguous Osteoporotic Lumbar Compression Fractures: The Relationship of Scoliosis to the Development of Cascading Fractures

Alex Sabo [1] , Jesse Hatgis [2] , Michelle Granville [3] , Robert E. Jacobson [3]

1. Neurology, Pain Management, Nova Southeast/larkin Community Hospital 2. Pain Management, Phoenix Neurological and Pain Institute 3. Miami Neurosurgical Center, University of Miami Hospital

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Disclosures can be found in Additional Information at the end of the article

Lumbale Skoliosen als
Risikofaktoren
Für Wirbelkörperfrakturen

Wiener Gesundheitsverbund
Klinik Donaustadt

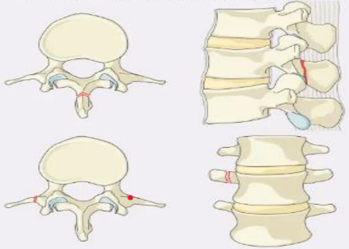
Für die
Stadt Wien

AO Spine Thoracolumbar Injury Classification System

Type A Compression Injuries

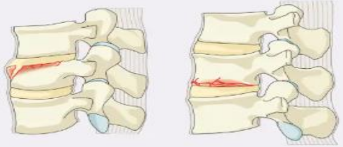
A0 Minor, nonstructural fractures

Fractures, which do not compromise the structural integrity of the spinal column such as transverse process or spinous process fractures.



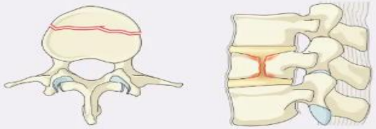
A1 Wedge-compression

Fracture of a single endplate without involvement of the posterior wall of the vertebral body.



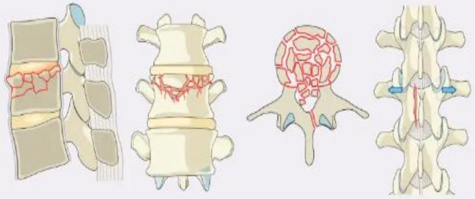
A2 Split

Fracture of both endplates without involvement of the posterior wall of the vertebral body.



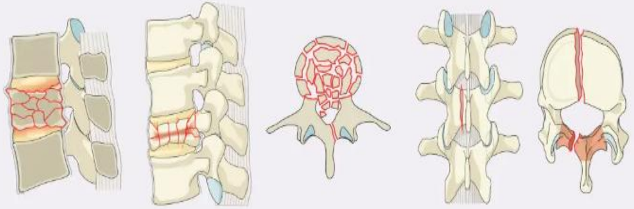
A3 Incomplete burst

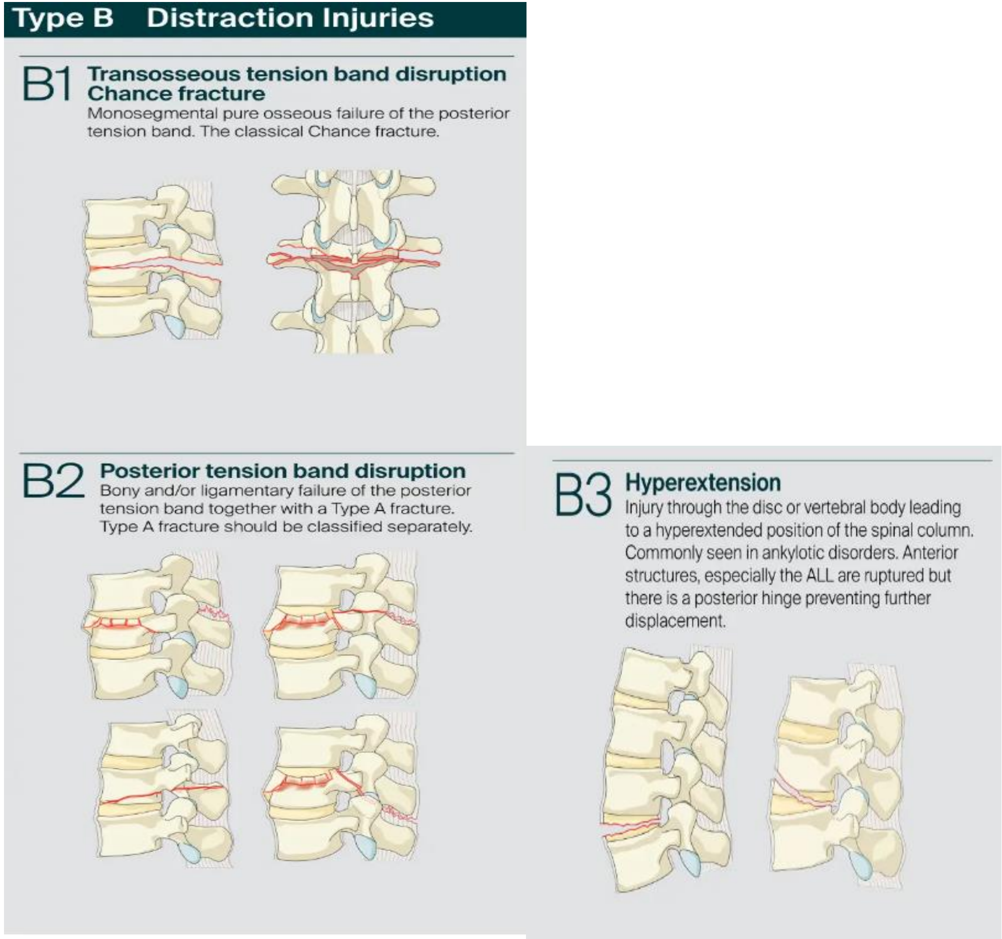
Fracture with any involvement of the posterior wall; only a single endplate fractured. Vertical fracture of the lamina is usually present and does not constitute a tension band failure.



A4 Complete burst

Fracture with any involvement of the posterior wall and both endplates. Vertical fracture of the lamina is usually present and does not constitute a tension band failure.





Type B Distraction Injuries

B1 Transosseous tension band disruption Chance fracture

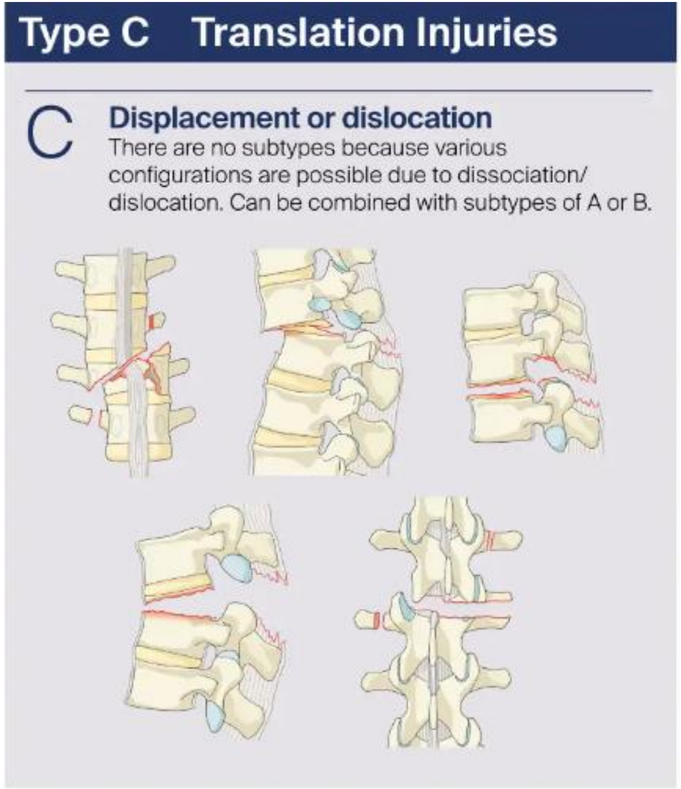
Monosegmental pure osseous failure of the posterior tension band. The classical Chance fracture.

B2 Posterior tension band disruption

Bony and/or ligamentary failure of the posterior tension band together with a Type A fracture. Type A fracture should be classified separately.

B3 Hyperextension

Injury through the disc or vertebral body leading to a hyperextended position of the spinal column. Commonly seen in ankylotic disorders. Anterior structures, especially the ALL are ruptured but there is a posterior hinge preventing further displacement.



Type C Translation Injuries

C Displacement or dislocation

There are no subtypes because various configurations are possible due to dissociation/ dislocation. Can be combined with subtypes of A or B.

Aging Clinical and Experimental Research (2023) 35:1609–1617
https://doi.org/10.1007/s40520-023-02445-4

ORIGINAL ARTICLE

Check for updates

Survival following vertebral compression fractures in population over 65 years old

Raquel Gutiérrez-González[1,2] · Ana Royuela[3] · Alvaro Zamarron[1]

Received: 11 April 2023 / Accepted: 15 May 2023 / Published online: 26 May 2023
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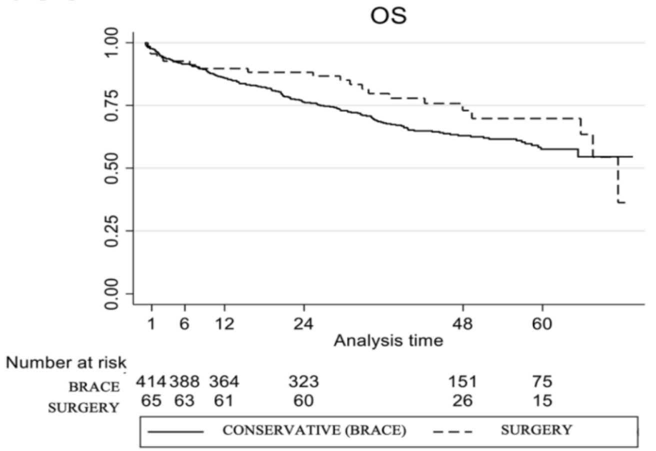
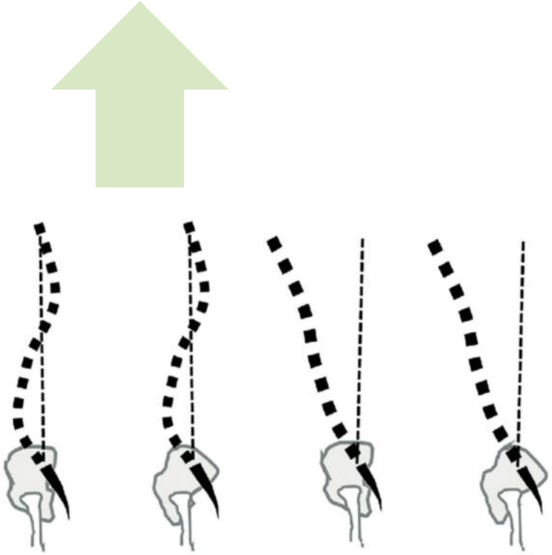


Fig. 2 Kaplan–Meier OS curve according to the treatment received: conservative management with brace vs. surgical vertebral augmentation. Log-rank test p value = 0.170

Conclusion Overall mortality rate was 36.2% after a median follow-up of 50.5 months (95% CI 48.2; 54.2).

Conclusion Osteoporotic vertebral compression fractures managed conservatively appear to be a significant causate factor of global sagittal imbalance.



European Spine Journal (2023) 32:2580–2587
https://doi.org/10.1007/s00586-023-07780-8

REVIEW ARTICLE

The influence of osteoporotic vertebral fractures on global sagittal alignment in elderly patients: a systematic review and meta-analysis

Elie Najjar[1] · Dritan Pasku[1] · Ali Mardashti[1] · Mustafa Meshneb[1] · Spyridon Komaitis[1] · Khalid M. Salem[1] · Nasir A. Quraishi[1]

Received: 6 March 2023 / Revised: 11 May 2023 / Accepted: 12 May 2023 / Published online: 24 May 2023
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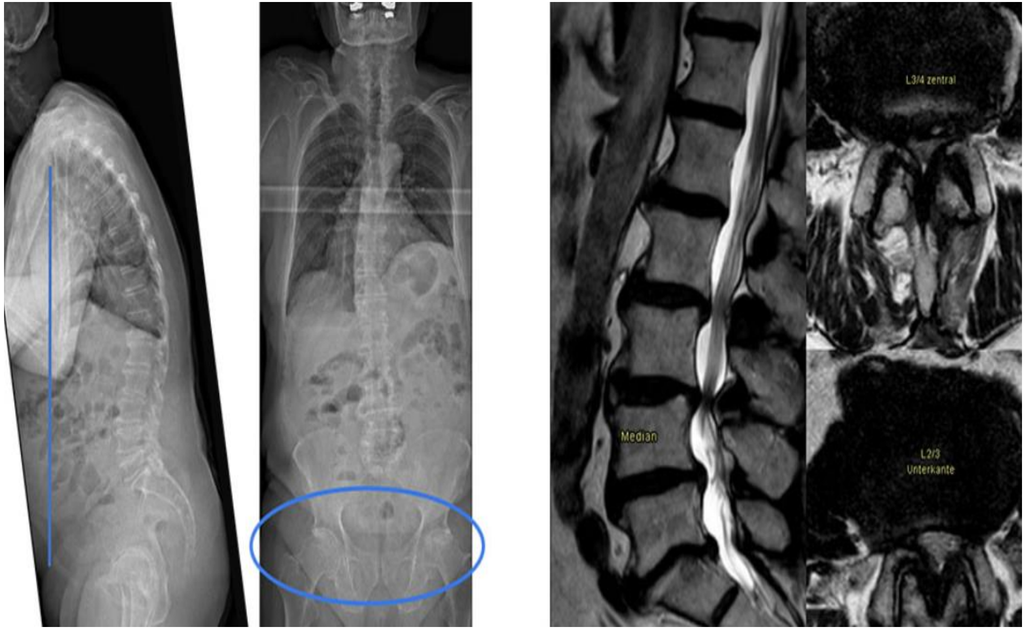
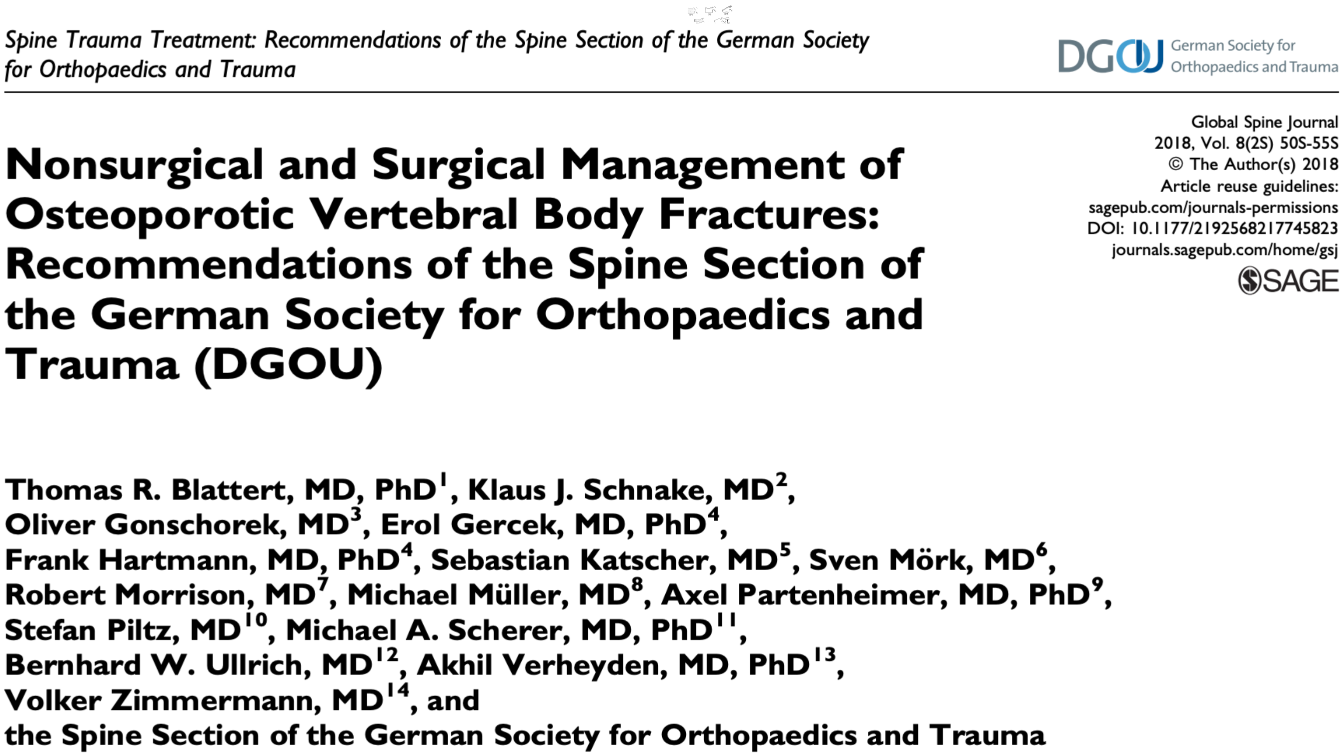
Probleme und Fakten der geriatrischen WK-Fraktur

- Osteoporose, rigid spine (Bechterew)
- Begleitcomorbiditäten
- Polypharmakotherapie
- vorbestehende Degenerative Veränderungen (Pseudolisthesen, Stenosen, …)
- Die akute Neurologie tritt im Vergleich zum jungen Patienten eher graduell und verzögert auf DD polyneuropathische Veränderungen etc
- -> anamnestisch oft schwer zu erheben





Spine Trauma Treatment: Recommendations of the Spine Section of the German Society for Orthopaedics and Trauma

DGOU German Society for Orthopaedics and Trauma

Global Spine Journal
2018, Vol. 8(2S) 50S-55S
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DOI: 10.1177/2192568217745823
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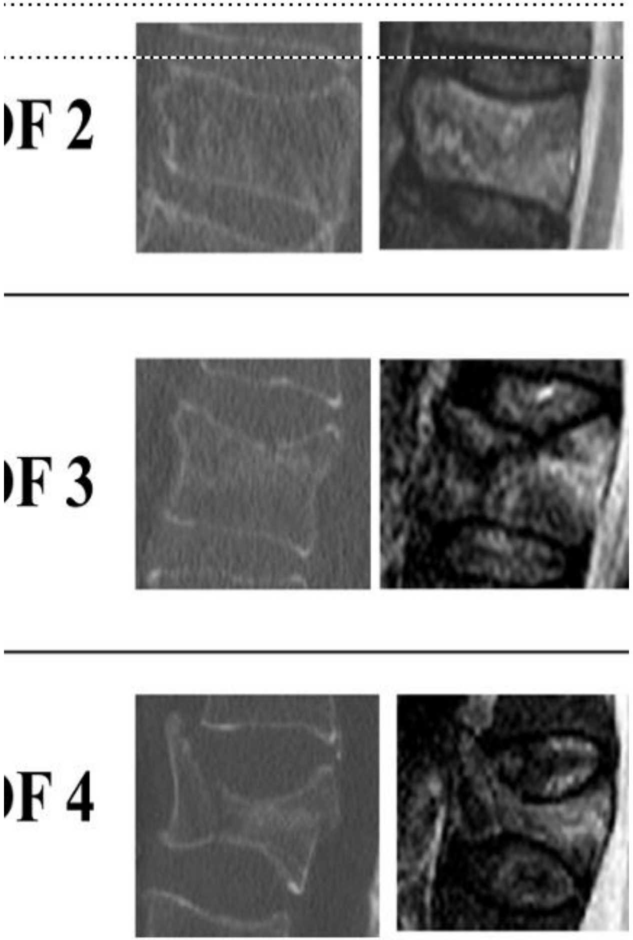
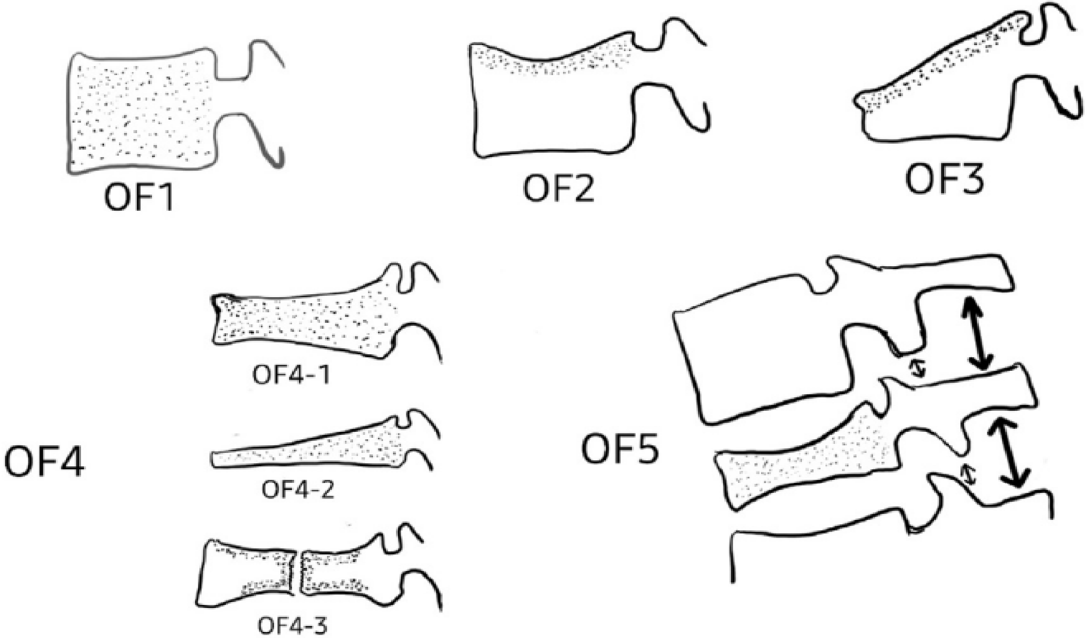
Nonsurgical and Surgical Management of Osteoporotic Vertebral Body Fractures: Recommendations of the Spine Section of the German Society for Orthopaedics and Trauma (DGOU)

Thomas R. Blattert, MD, PhD[1], Klaus J. Schnake, MD[2], Oliver Gonschorek, MD[3], Erol Gercek, MD, PhD[4], Frank Hartmann, MD, PhD[4], Sebastian Katscher, MD[5], Sven Mörk, MD[6], Robert Morrison, MD[7], Michael Müller, MD[8], Axel Partenheimer, MD, PhD[9], Stefan Piltz, MD[10], Michael A. Scherer, MD, PhD[11], Bernhard W. Ullrich, MD[12], Akhil Verheyden, MD, PhD[13], Volker Zimmermann, MD[14], and the Spine Section of the German Society for Orthopaedics and Trauma




OF1
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OF4
OF4-1
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OF4-3
OF5

Fig. 2. Redrawn from: Classification of Osteoporotic Thoracolumbar Spine Fractures: Recommendations of the Spine Section of the German Society for Orthopaedics and Trauma (DGOU), Global Spine Journal 2018, Vol.8(2S)46S–49S, DOI:10.1177/2192568217717972.

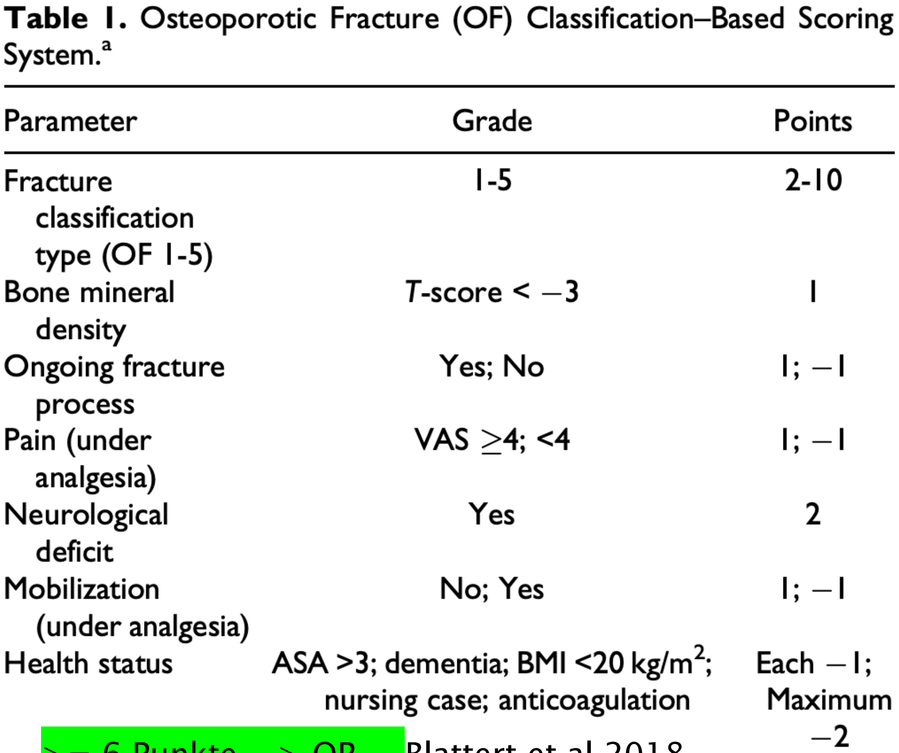
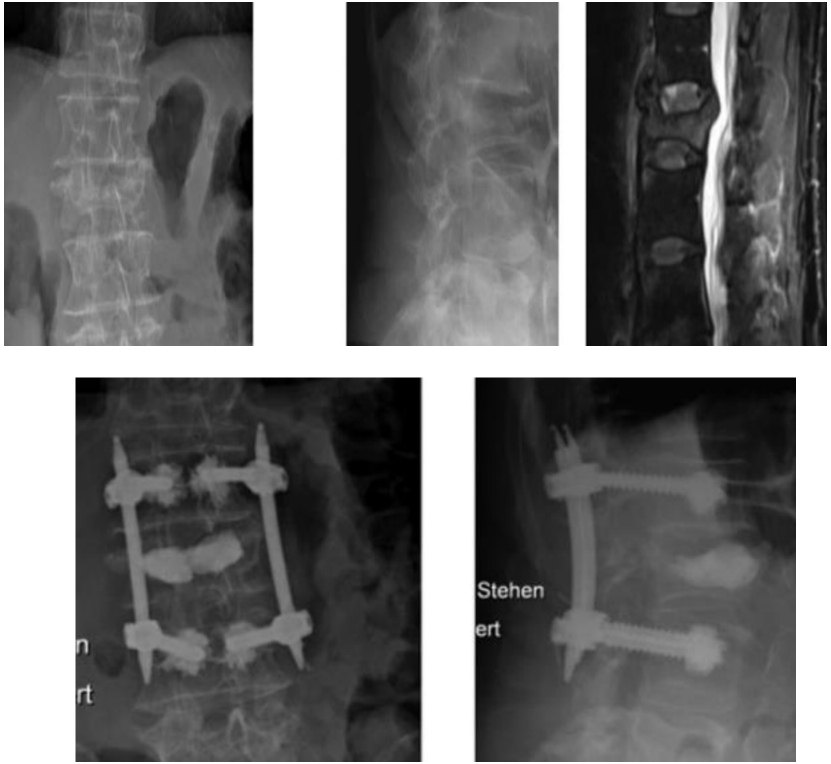


Table 1. Osteoporotic Fracture (OF) Classification–Based Scoring System.[a]

Parameter	Grade	Points
Fracture classification type (OF 1-5)	1-5	2-10
Bone mineral density	*T*-score < −3	1
Ongoing fracture process	Yes; No	1; −1
Pain (under analgesia)	VAS ≥4; <4	1; −1
Neurological deficit	Yes	2
Mobilization (under analgesia)	No; Yes	1; −1
Health status	ASA >3; dementia; BMI <20 kg/m^2; nursing case; anticoagulation	Each −1; Maximum −2

>= 6 Punkte - > OP Blattert et al 2018

OF 3 Fx



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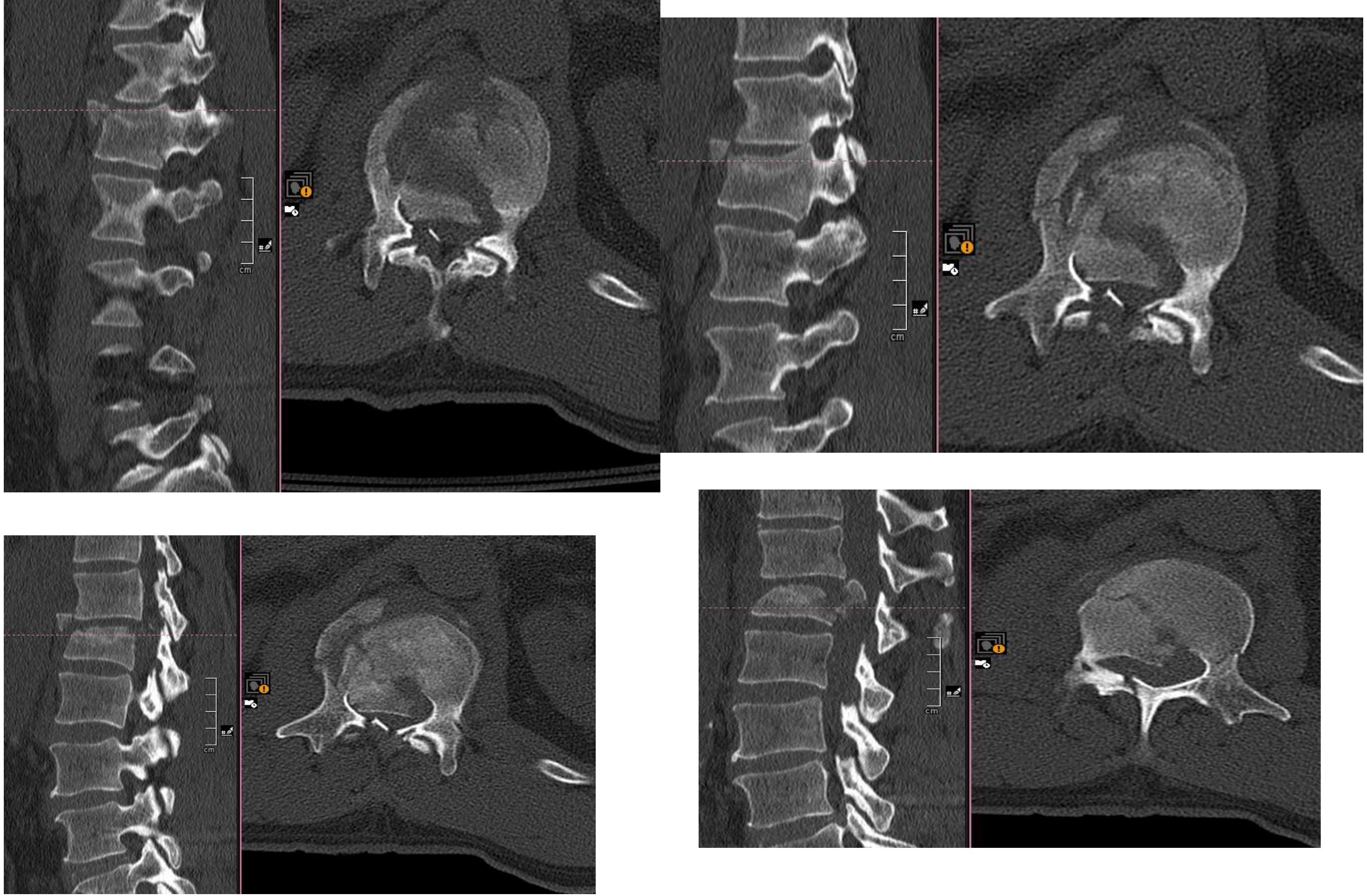
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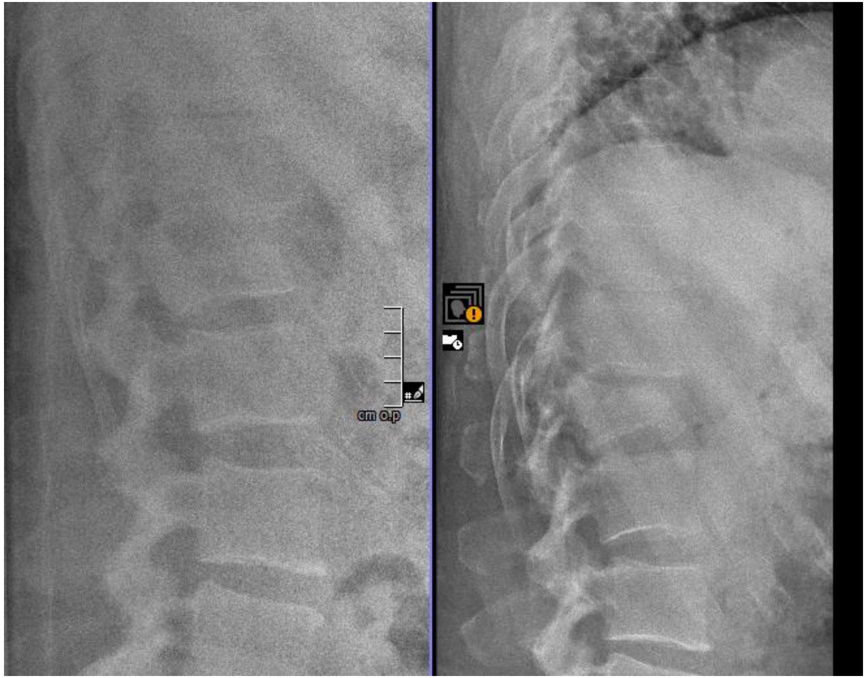
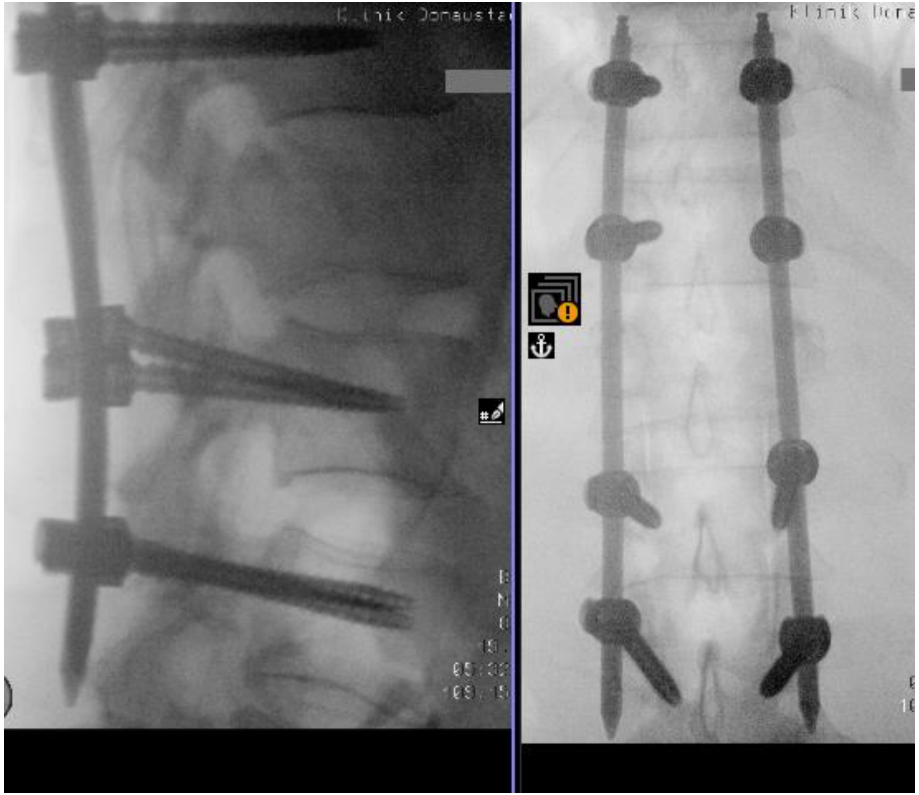


- M. 72 a
- Motoradunfall, Transfer zu uns am 5 Tag, late onst Neurologie, instabile L1 Fx

- Intra OP Neuromonitoring zeigt
- ca. 25% verlangsamte Rückmeldung,
- Dekompresion, Duraleak versorgt
- Ventrale Stab. zweizeitig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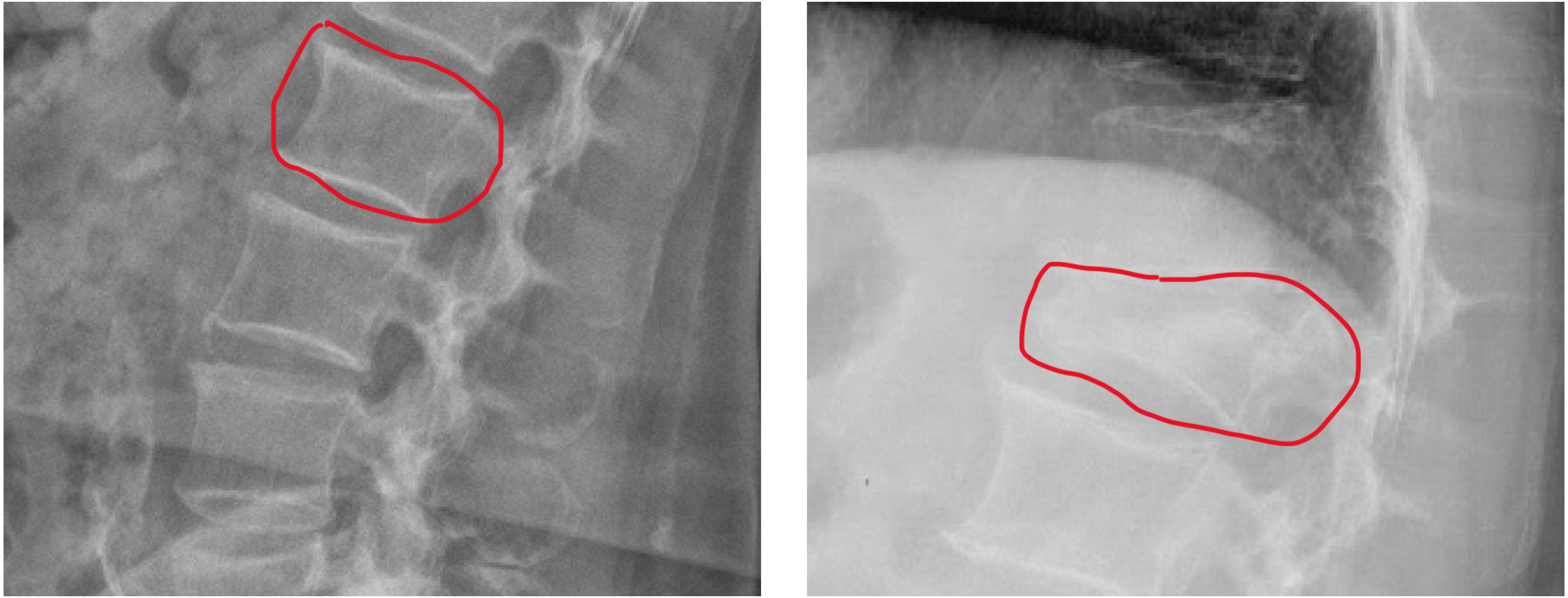

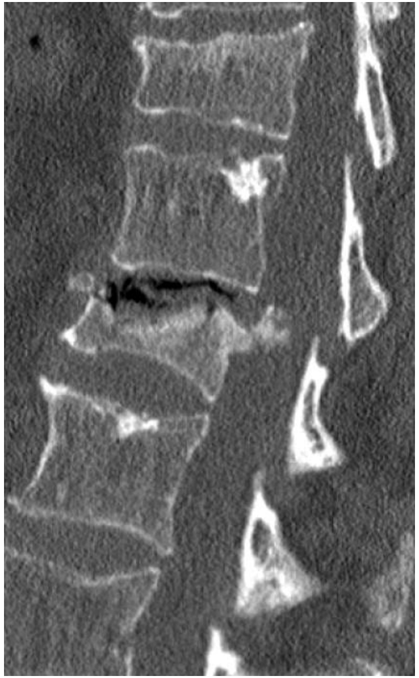

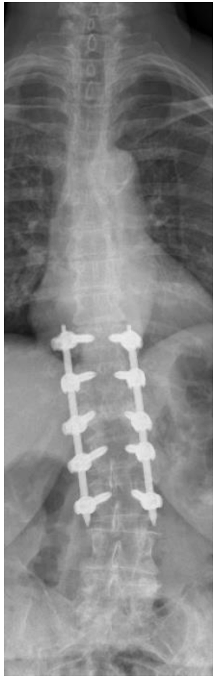

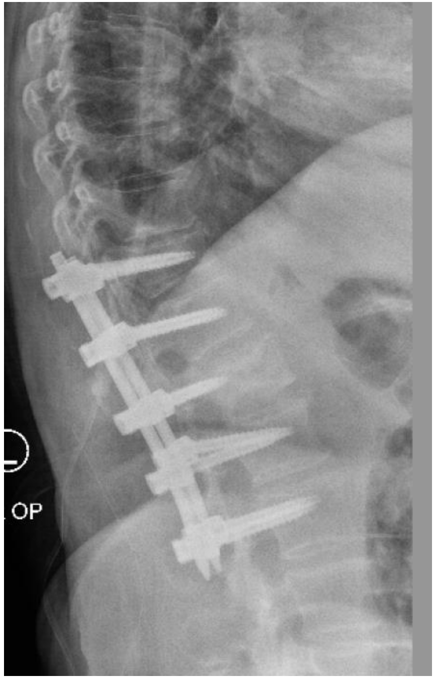

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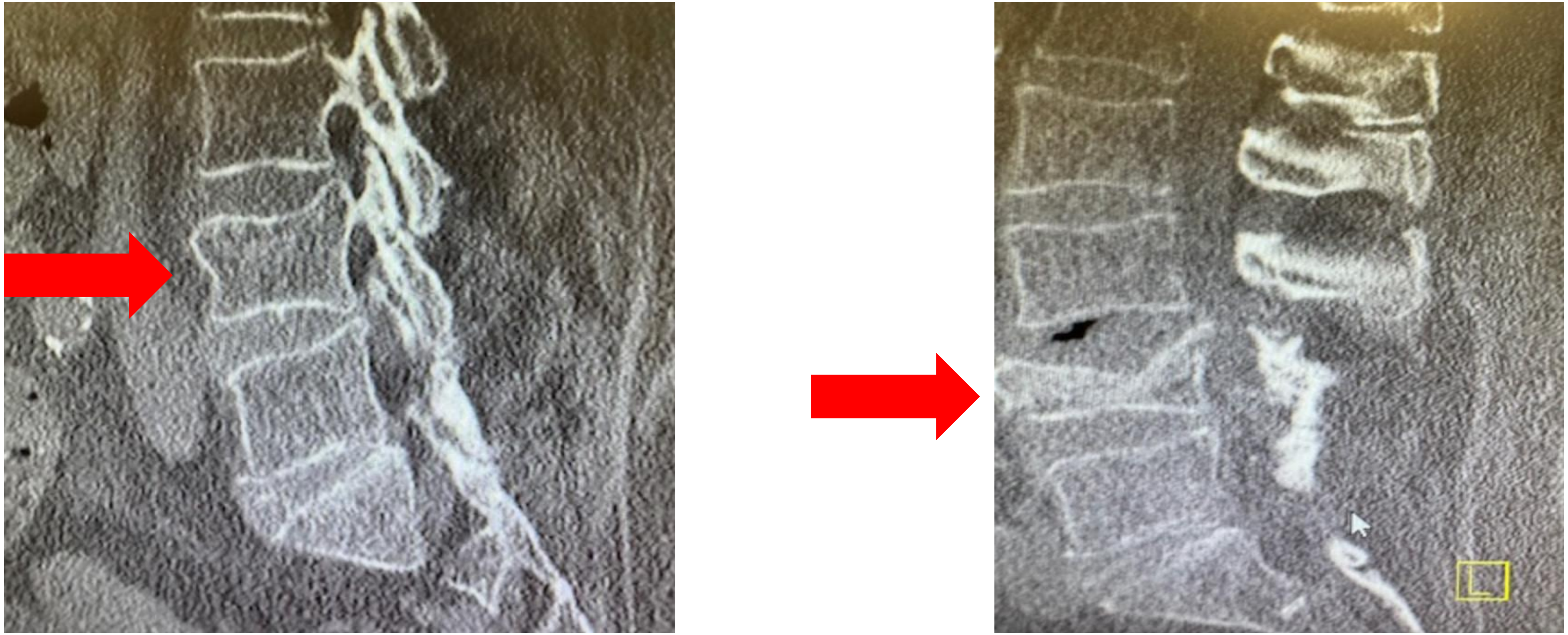
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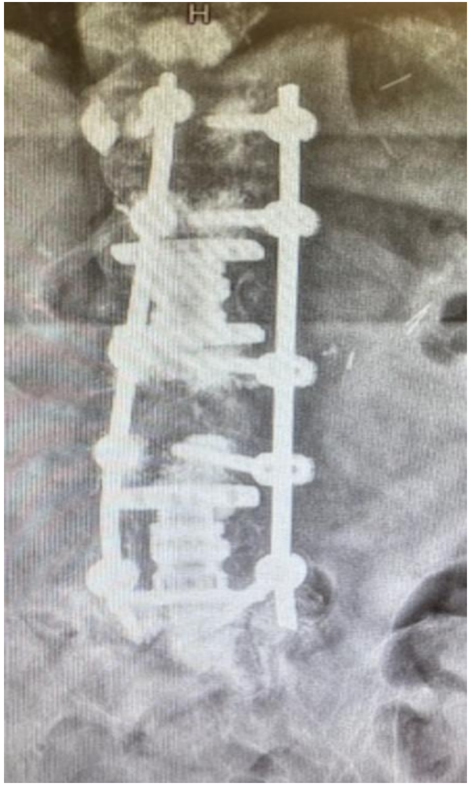
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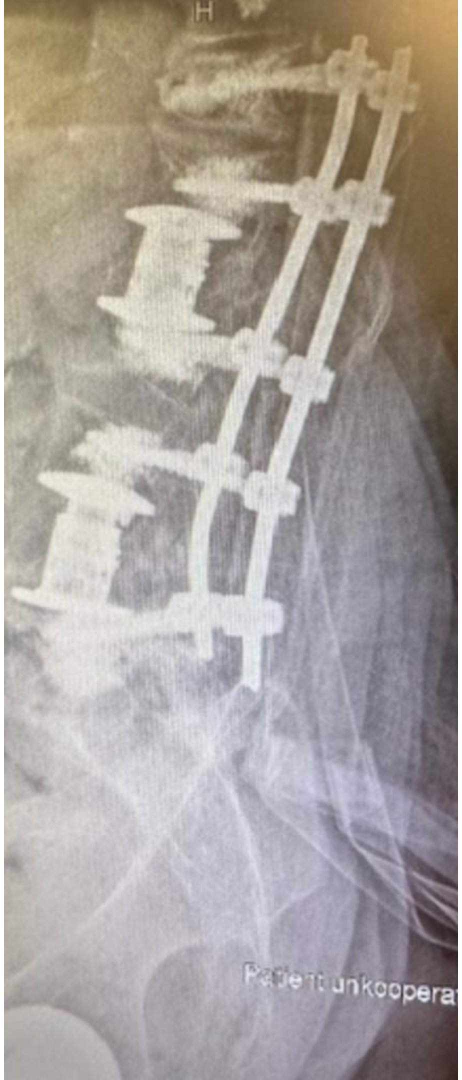
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Patient unkooperat

Conclusio

- Frühzeitige Identifikation der konservativen Therapieversager ca 30 %
- OF Klassifikation hilfreich – > Op Indikation (Dekompression, Augmentation, Instrumentierung, ventrale Rekonstruktion)
- Exakte Anamnese und neurologischer Status – > oft kein akuter Onset
- Zeitnahe Versorgung ähnlich der hüftnahen Frakturen

Danke für die Aufmerksamkeit !!

WS Team Abteilung für Orthopädie und Traumatologie
Klinik Donaustadt, Wien

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