



UKS
Saarland University
Medical Center

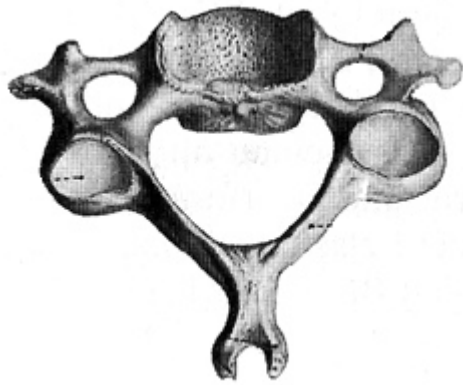
Die Halswirbelsäule aus Sicht des Neurochirurgen

PD Dr. med. Stefan Linsler

Klinik für Neurochirurgie



Anatomie





Krankheitsbilder

- Bandscheibenvorfall
- Cervikale Stenose
- Cervikale Myelopathie
- Tumore
- Trauma



Operationsverfahren

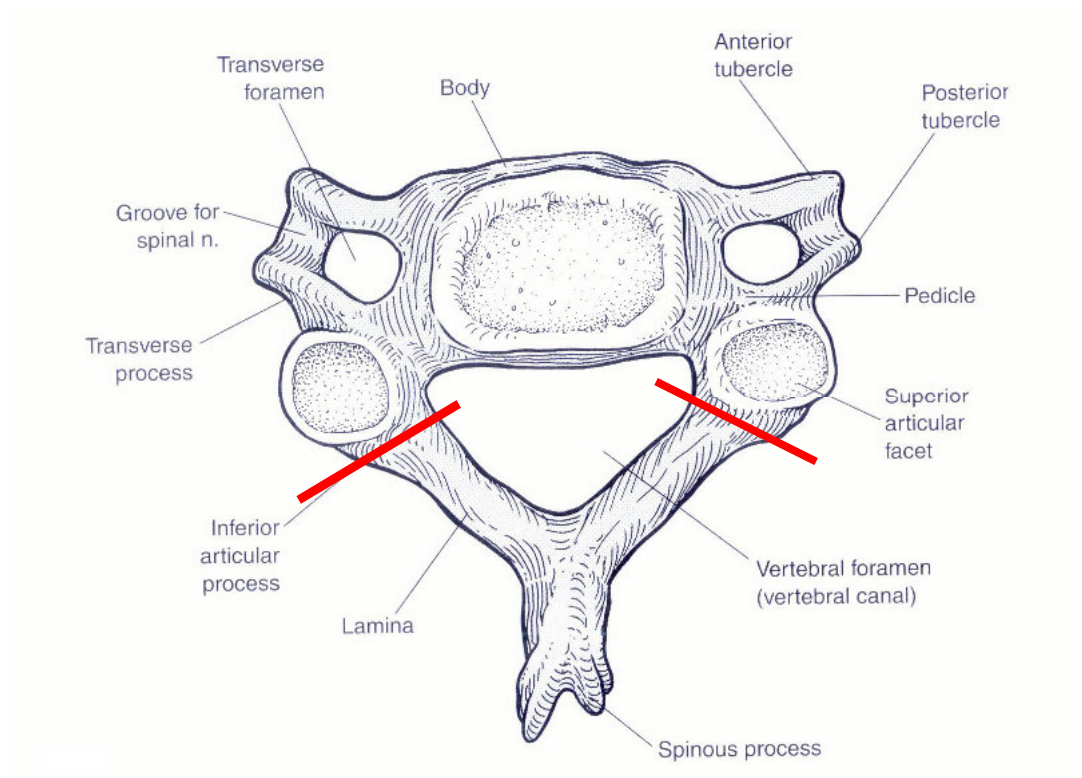
dorsale Verfahren

- Laminektomie
- Laminoplastie
- Foraminotomie
- Dorsale Spondylodese

ventrale Verfahren

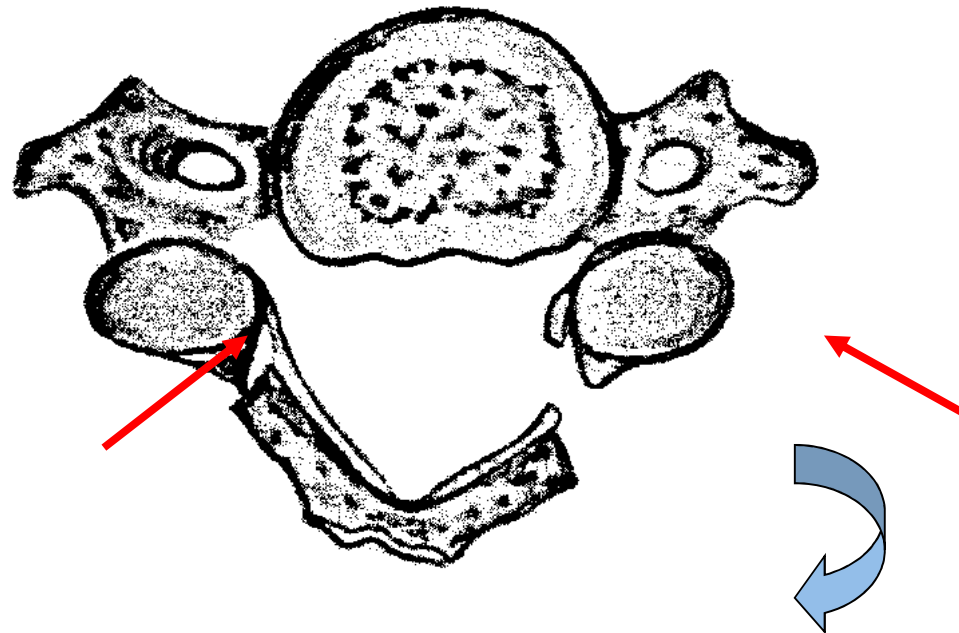
- Wirbelkörperresektion, -plastik, (Stabilisierung)
- Segmentdekompression, Fusion, (Stabilisierung)

Laminektomie



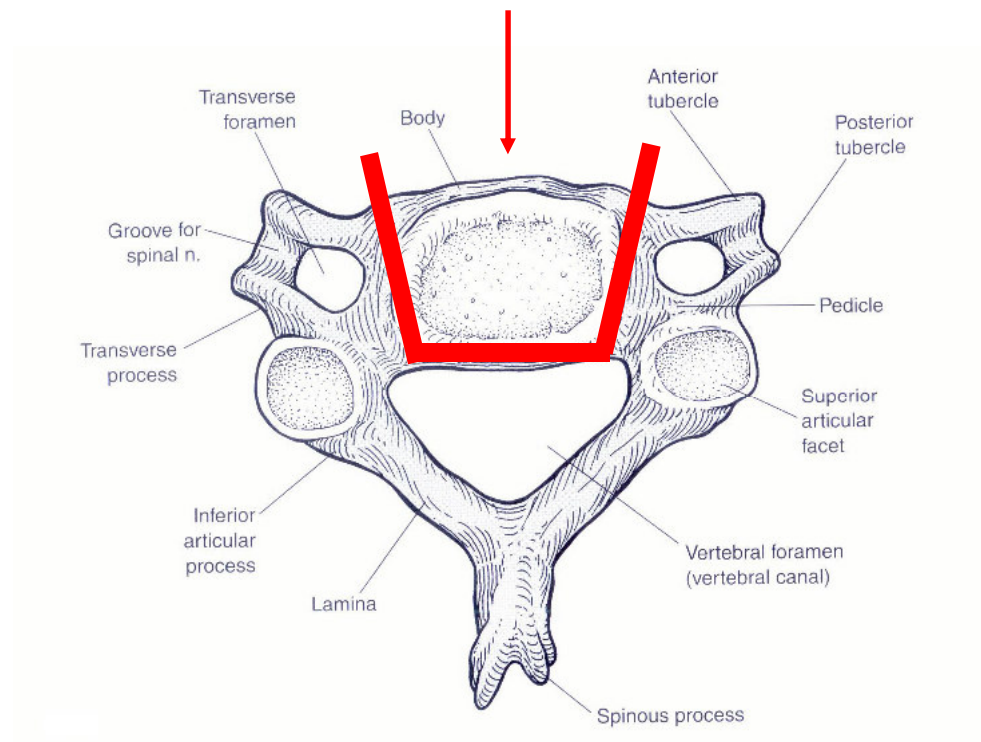
dorsaler Zugang zur Resektion der Lamina mit Dekompression

Laminoplastie



Tsuji, 1982

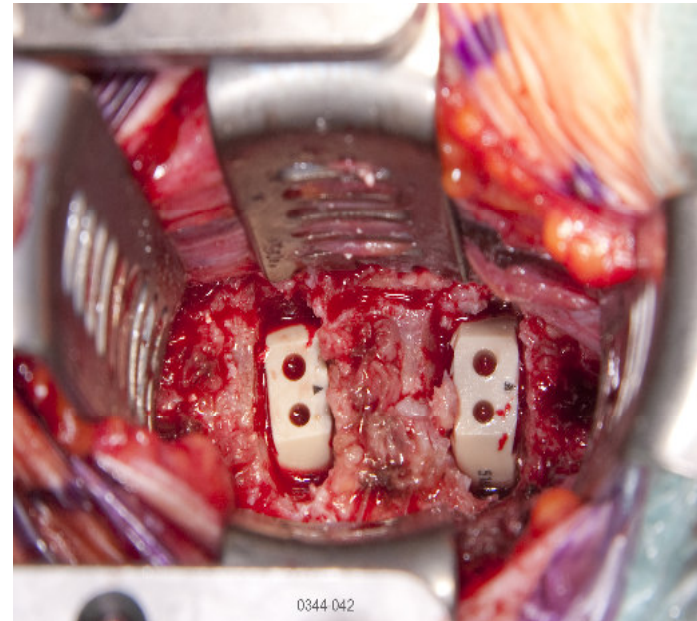
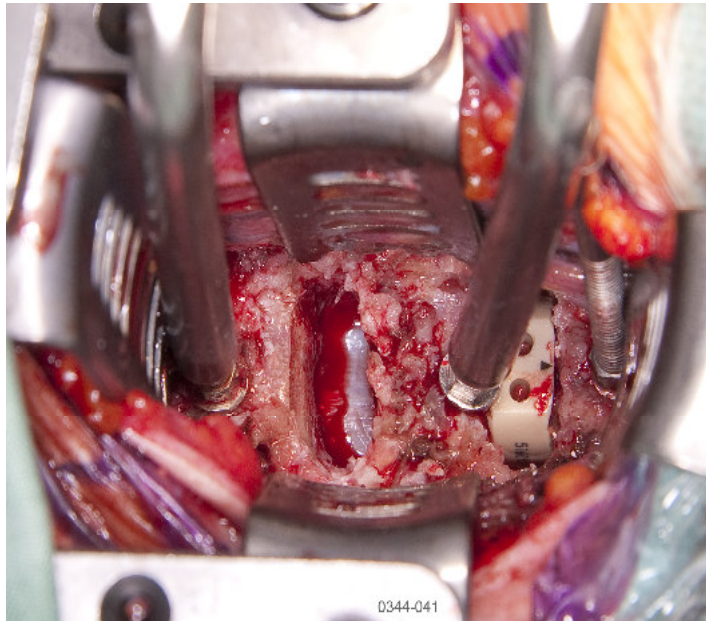
Prinzip ventraler Verfahren

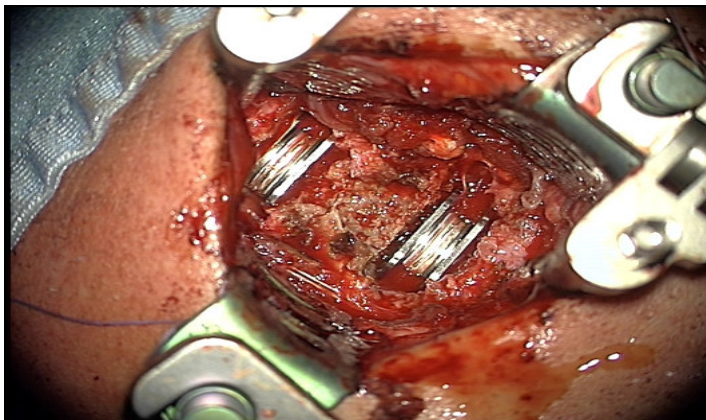
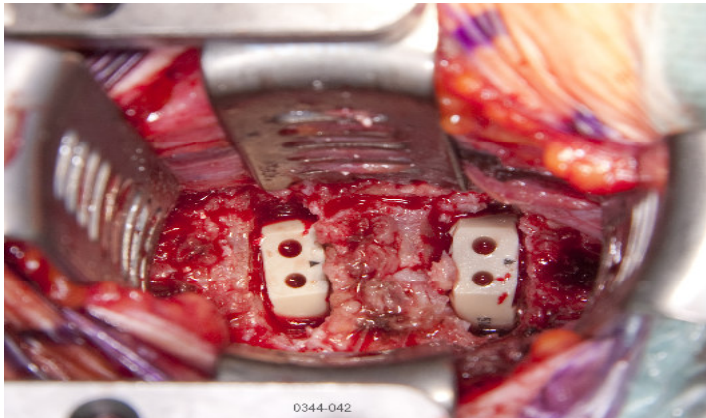


Dekompression über den ventralen Zugang



Cervikaler Bandscheibenvorfall/Stenose

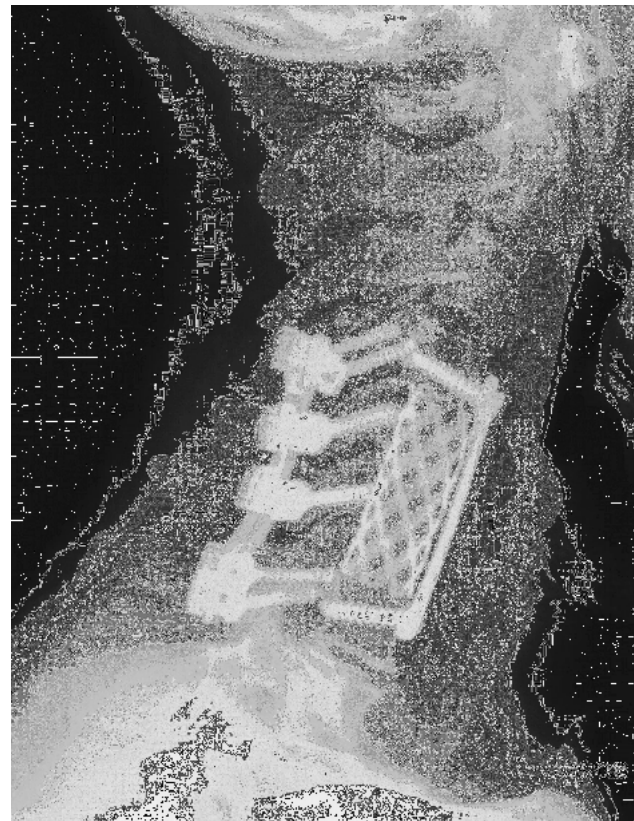






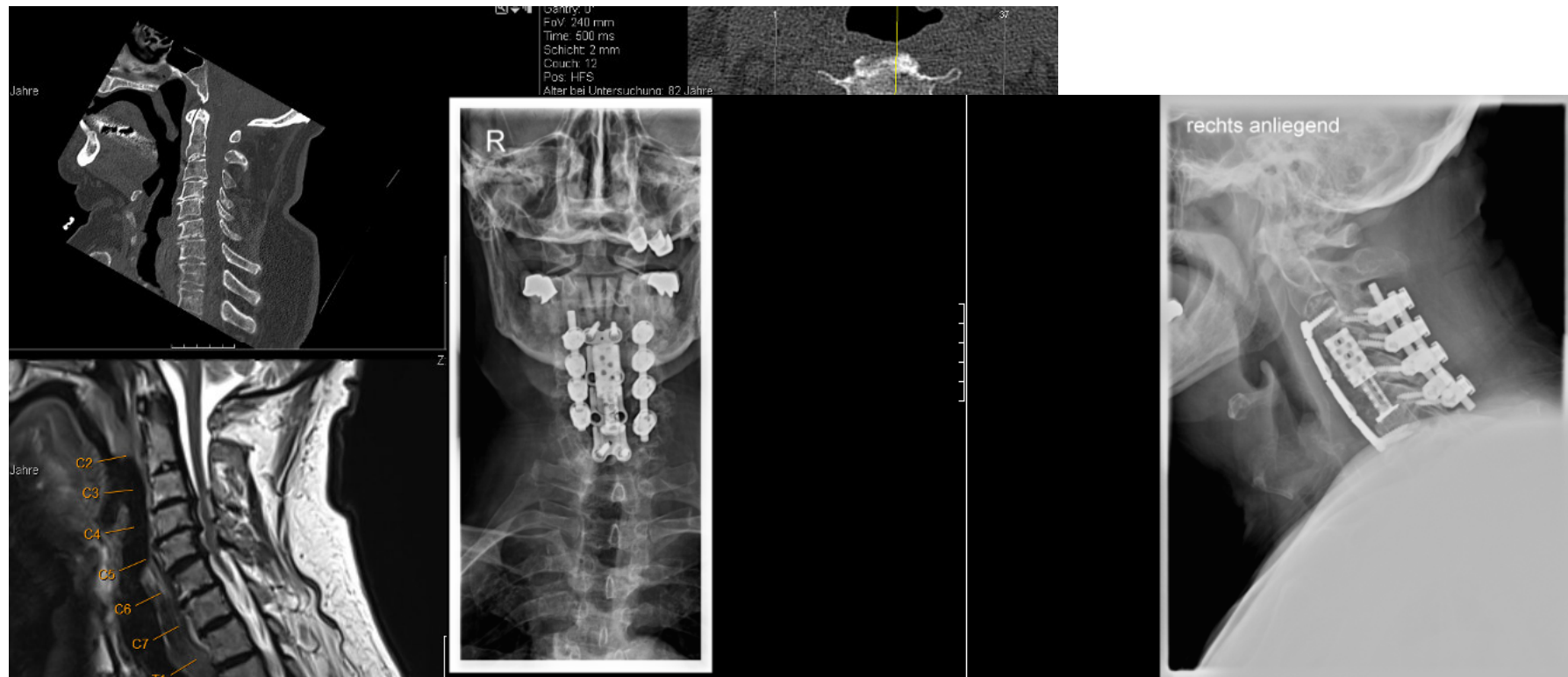
OPLL

(Ossification of the Posterior Longitud. Ligament)



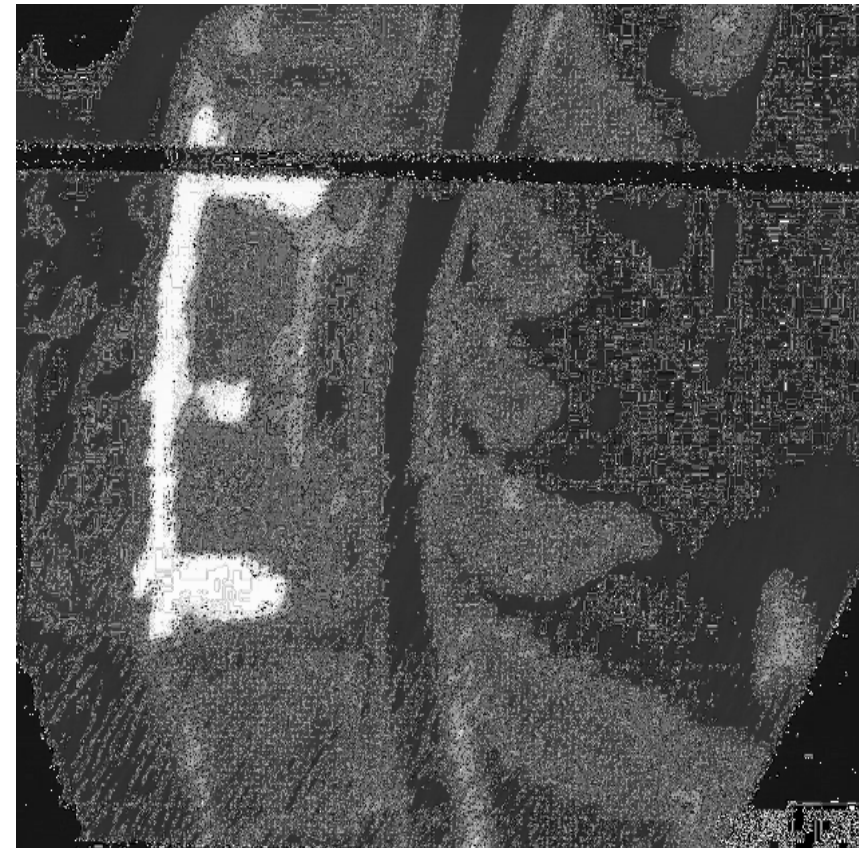
OPLL

(Ossification of the Posterior Longitud. Ligament)

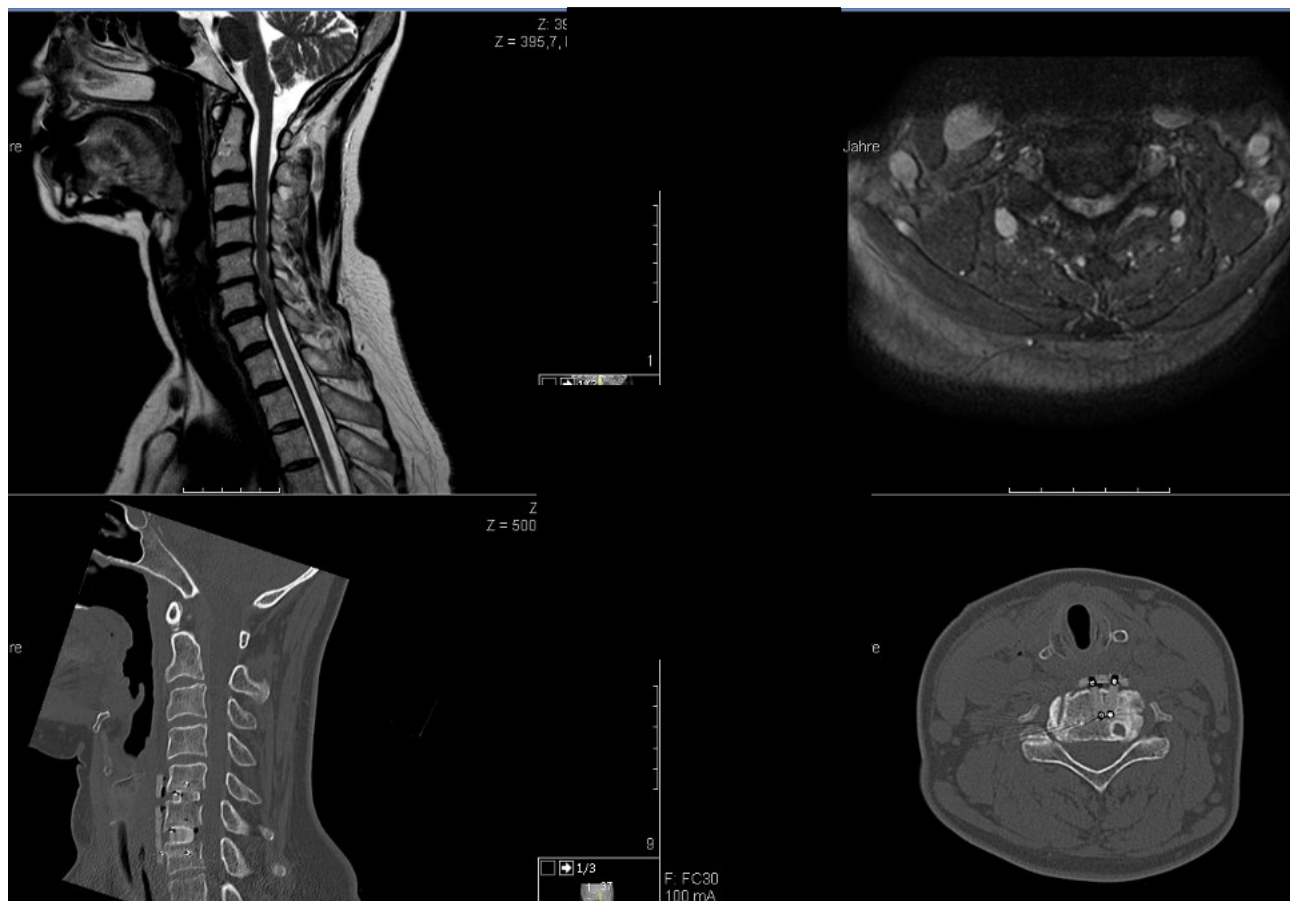




Effekt der HWK-Resektion

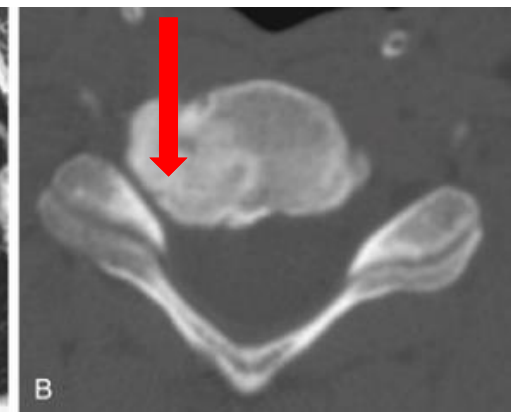
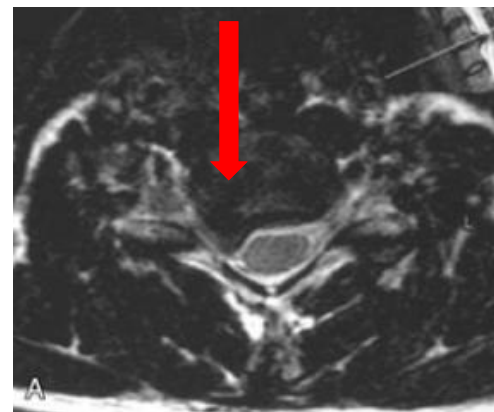
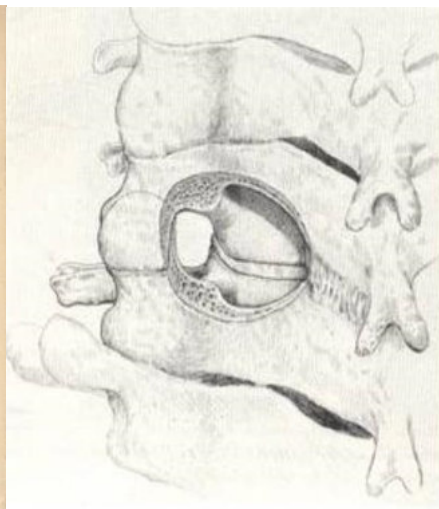
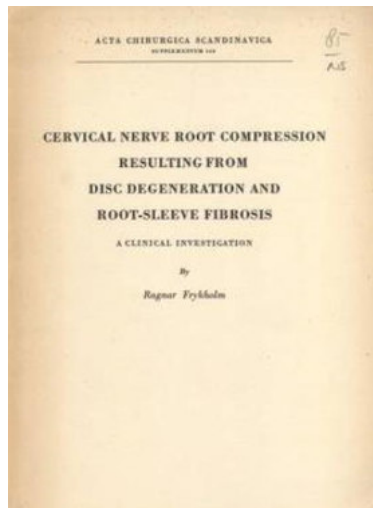


Carbonimplantate





Foraminotomie – dorsales Verfahren



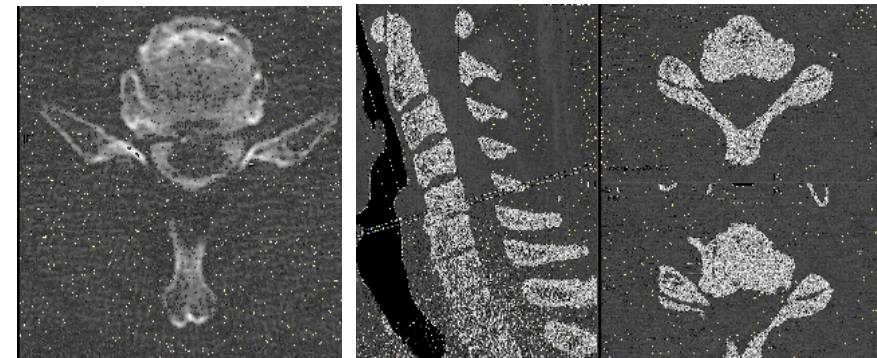
Literatur

ORIGINAL ARTICLE



Endoscopic Posterior Cervical Foraminotomy as a Treatment for Osseous Foraminal Stenosis

Joachim M.K. Oertel, Mark Philipps, Benedikt W. Burkhardt

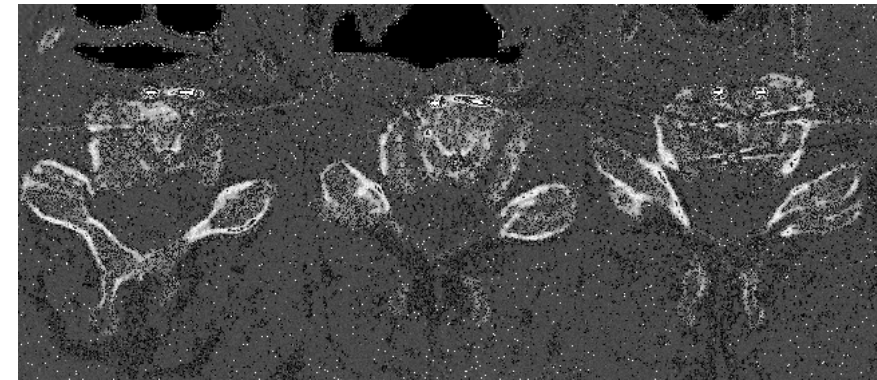


ORIGINAL ARTICLE



Influence of Prior Cervical Surgery on Surgical Outcome of Endoscopic Posterior Cervical Foraminotomy for Osseous Foraminal Stenosis

Benedikt W. Burkhardt, Simon Müller, Joachim M.K. Oertel





Op-Technik - Lagerung

Concord position



Semisitting position



Posterior Minimally Invasive Approaches for the Cervical Spine
Vishal C. Gala, MD, MPH, John E. O'Toole, MD, Jean-Marc Voyadzis, MD,
Richard G. Fessler, MD, PhD
Orthop Clin N Am 38 (2007) 339–349

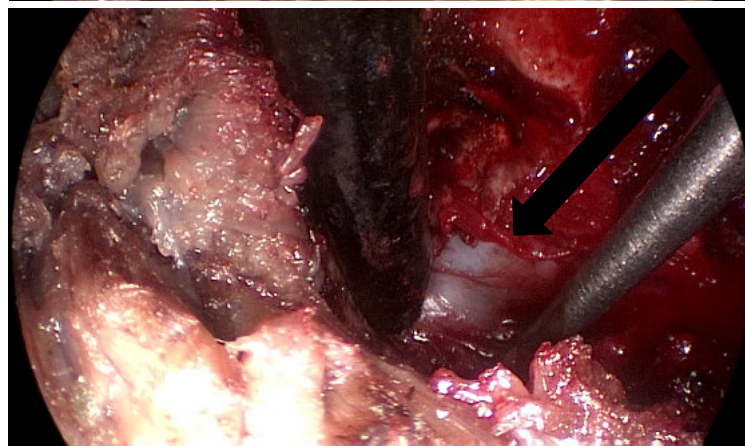
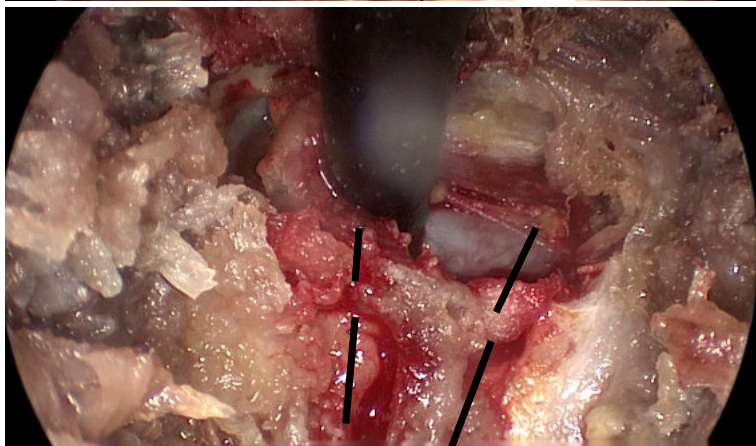
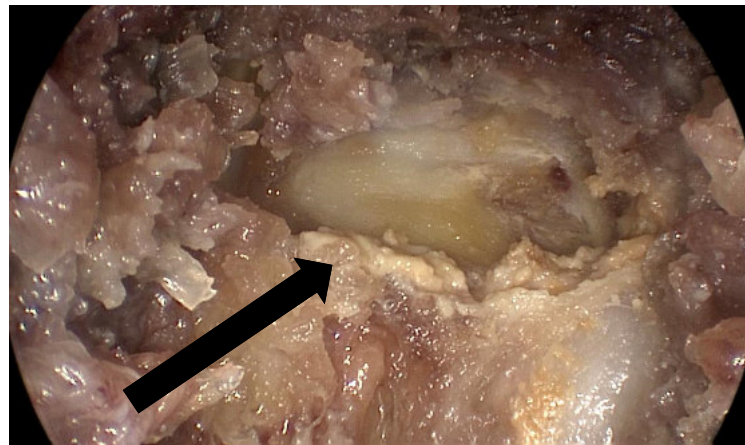
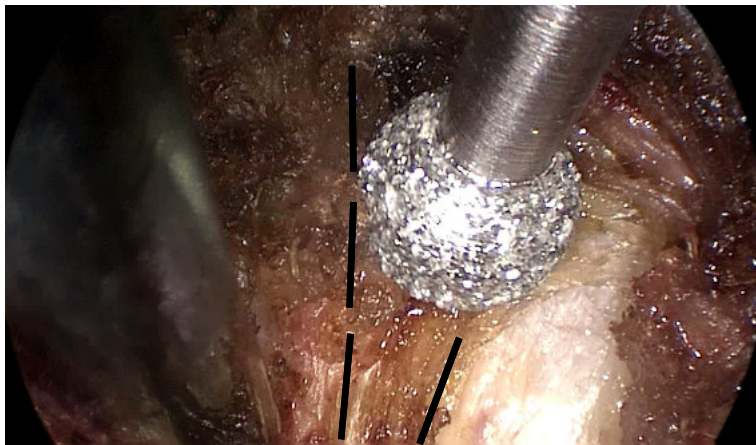
Endoskopischer dorsaler Zugang



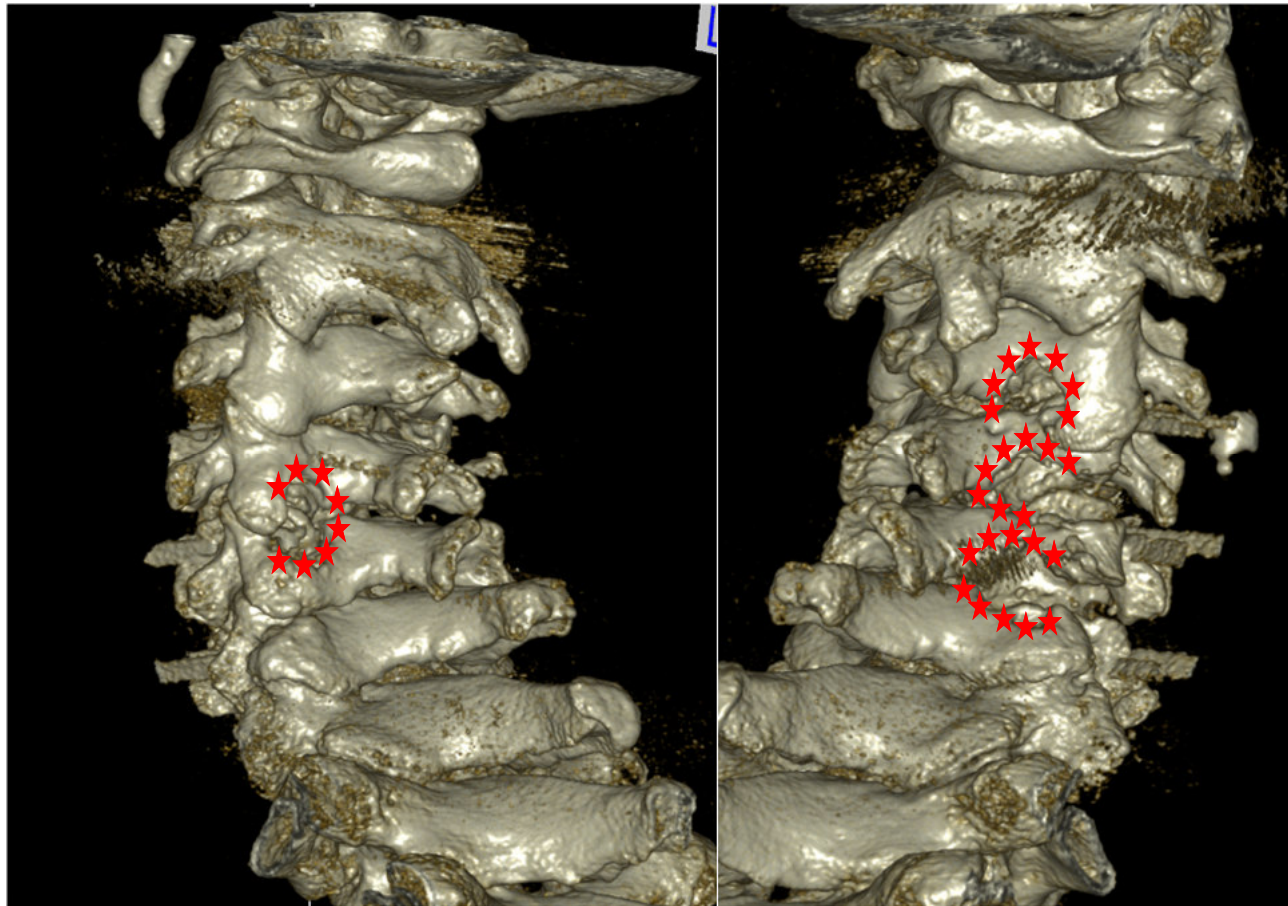
EasyGO 2.Generation, Karl Storz



Endoscopische Foraminotomie



Postoperatives CT



Case: 69 year old male patient (24 month follow)

- *It took 6 month to regain full motor strength*
- *No senso-motory deficits.*
- *No pain*

ästhetisches Outcome



**Zwei Höhen
endoskopischer
Frykholm (C5/6 & C6/7)**

Postoperative Wunde
(ca. 13mm)



Patientenkollektiv

- 45 patients (28 male and 17 female)
- Mean age: 55.6 years (range: 29 – 82 years)
- 1-level procedure: 33 patients
- 2-level procedure: 11 patients
- 3-level procedure: 1 patient
- Unilateral procedure: 41 patients
- Bilateral procedure 4 patients
- 20 patients without previous cervical spine surgery
- 25 patients with previous cervical spine surgery

Ergebnisse

Pain	Without Previous Surgery	With previous surgery
Preoperative	85.7%	95.8%
Postoperative (painfree/reduction)	100.0%	91.7%
Paresis		
Preoperative	38.7%	62.5%
Postoperative (no paresis /reduction, 1week)	87.5%	60.0%
Postoperative (no paresis, 6 month)	100.0%	73.3%



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Vielen Dank für Ihre Aufmerksamkeit



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