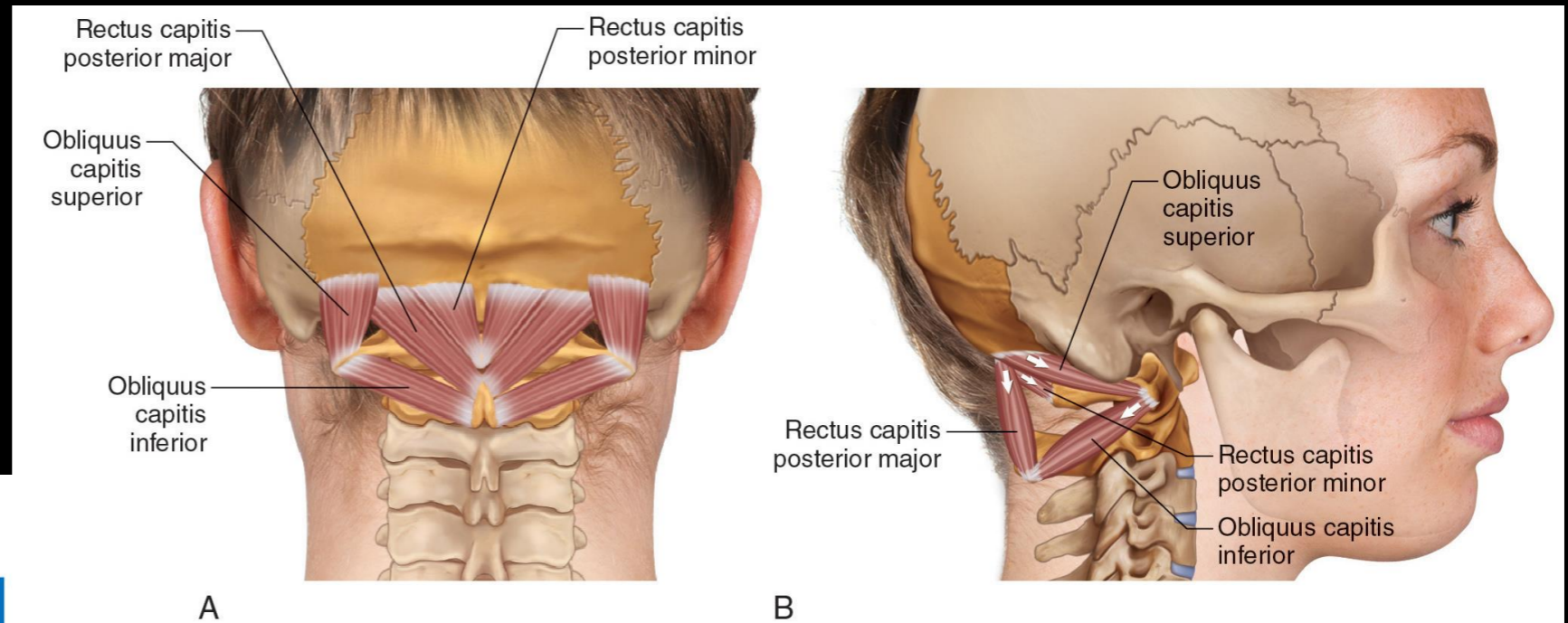


C1-2 dorsalis rögzítés

Dr. Bod Bence Barnabás
Idegsebész szakorvos



Anatômía



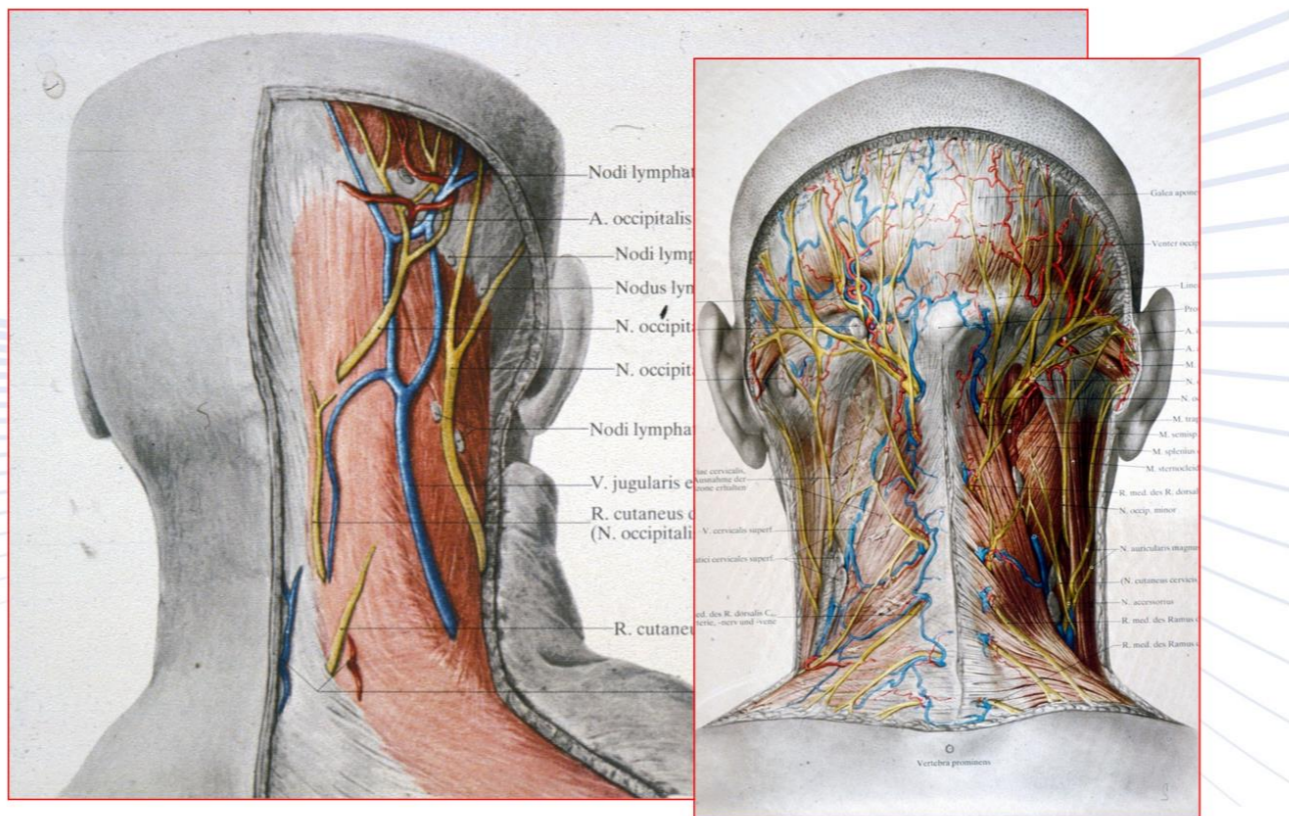
A

B

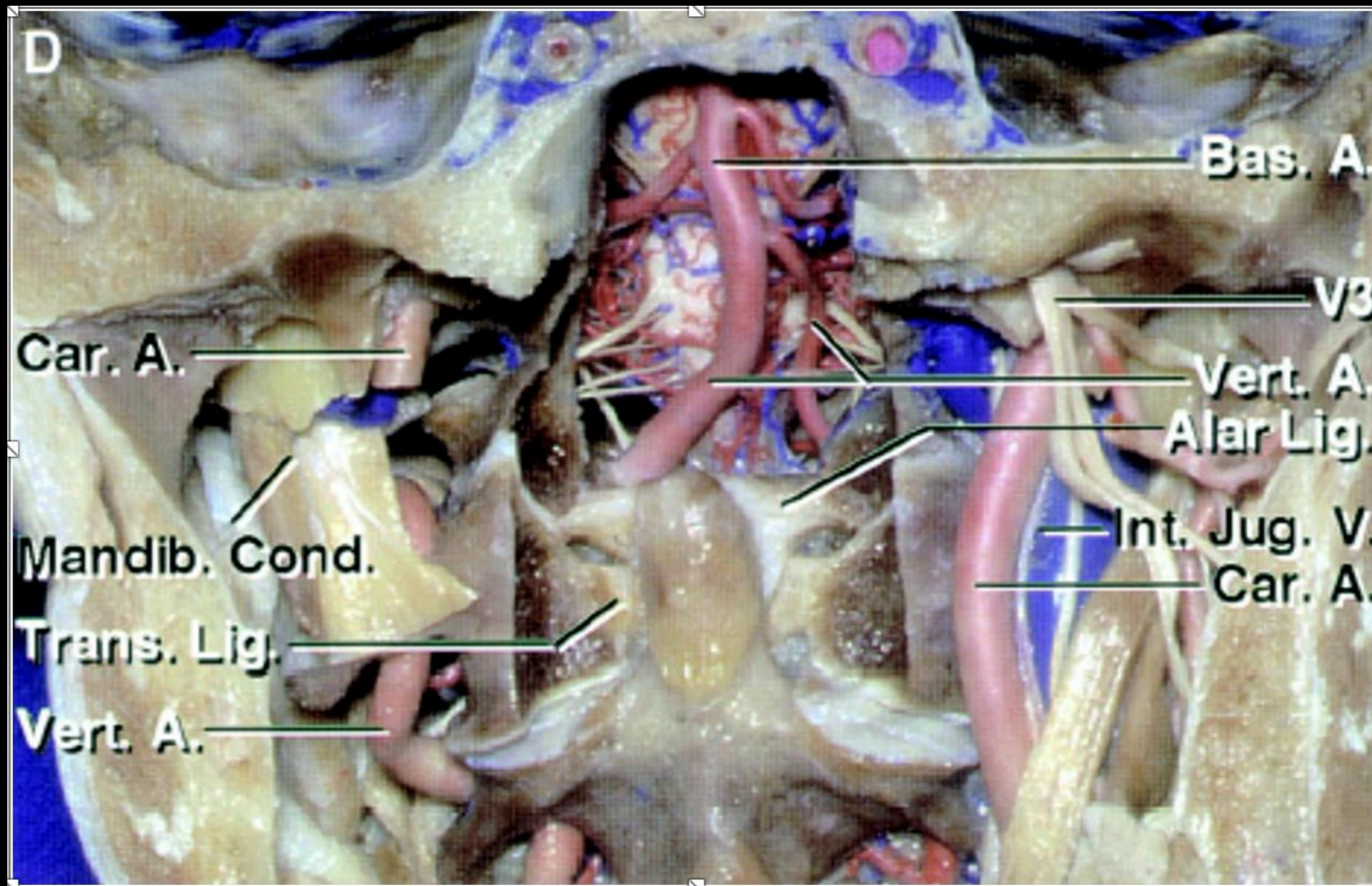
© Dr. Joe Muscolino (www.learnmuscles.com), art by Giovanni Rimasti



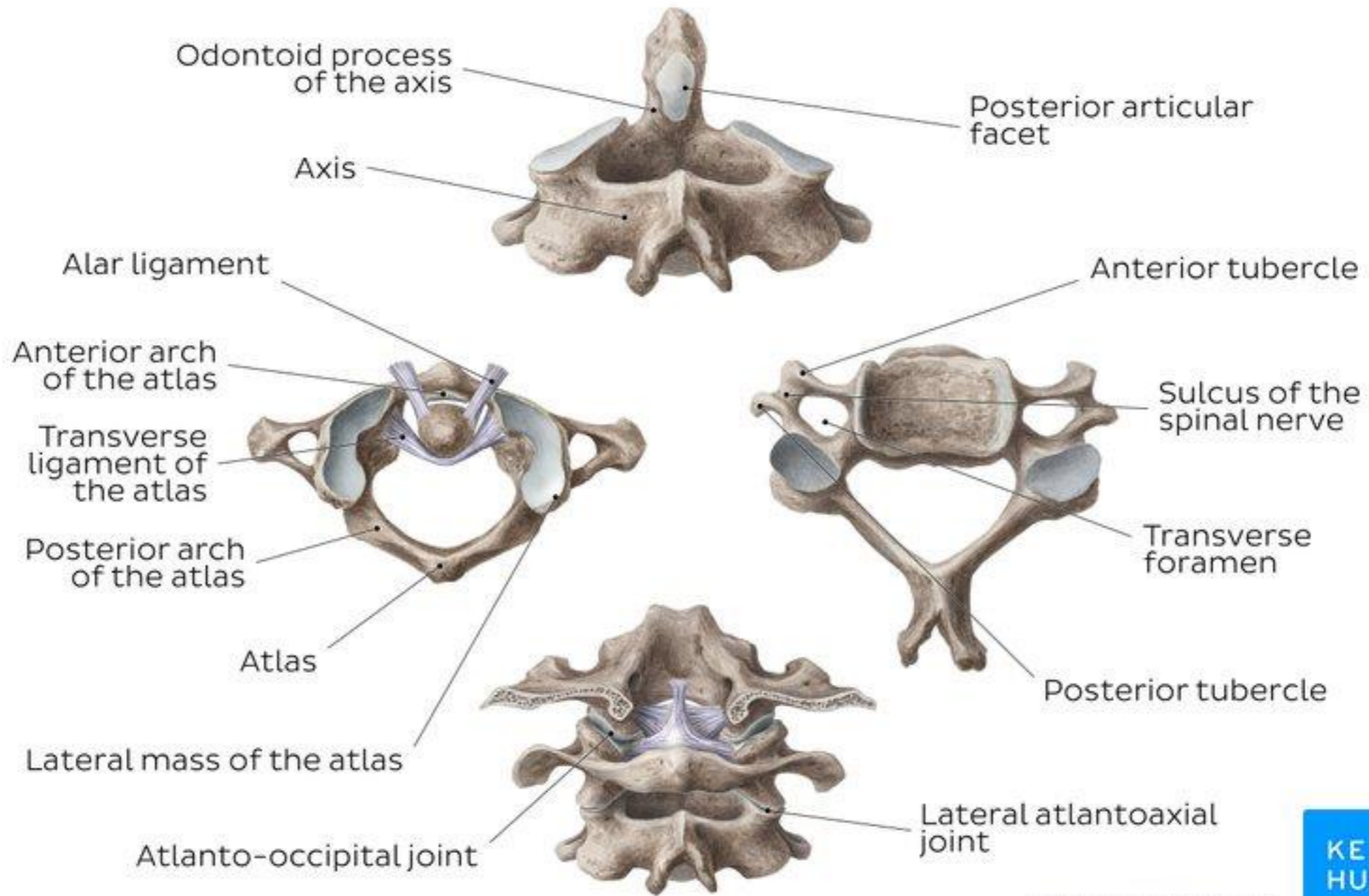
Superficial



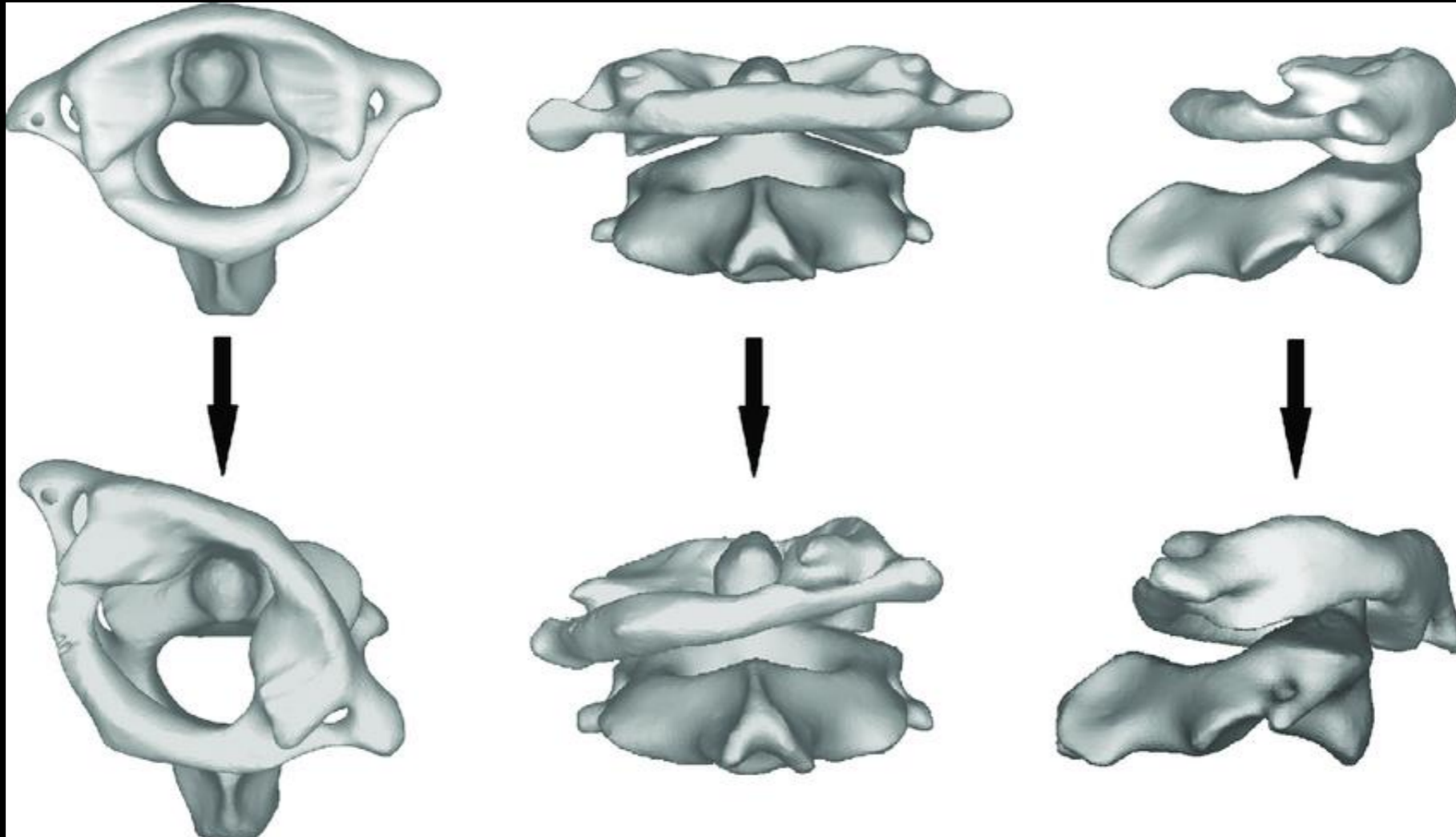
Anat3mia



Anat3mia



C1-II szegmentumok mozgása



In vivo three-dimensional kinematics of the cervical spine during maximal active head rotation

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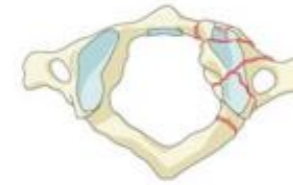

* he_xijing17@126.com

Indikáció

- Atlantoaxialis instabilitás
- Okai lehetnek: trauma, tumor, congenitalis, gyulladásos betegségek
- Trauma: C1, odontoid, CII törések, kombinált sérülések
- Tumor: primer, metastaticus
- Congenitalis: basilaris invaginatio, Chiari?
- Gyulladásos: RA, arthritis psoriatica, spondylitis ankylopoetica

Indikáció

Atlas fractures: Gehweiler classification

Type	Description	Treatment
I	 Stable hyperflexion injuries of the anterior arch.	Non-operative, in a soft collar.
II	 Stable hyperextension injuries of the posterior arch.	Non-operative, in a soft collar.
IIIa	 Type III fractures are axial loading "burst" fractures. In type IIIa, the transverse atlantal ligament is intact.	Non-operative, in a hard collar.
IIIb	 In type IIIb injuries, the transverse atlantal ligament is ruptured, either as inter-ligament (Dickman type 1) or bony avulsion injury (Dickman type 2).	Surgical, either by C1 lateral mass osteosynthesis or C1-C2 fusion.
IV	 Lateral mass fractures, at risk of collapse and posttraumatic arthritis.	Surgical, either by C1-C2 fusion.
V	 Transverse process fractures, at risk of vertebral artery injury through the vertebral foramen.	Non-operative, in a soft collar. Obtain CT-angiogram to rule out vertebral artery injury.

**Jefferson törés-sekély
vízbe ugrás**

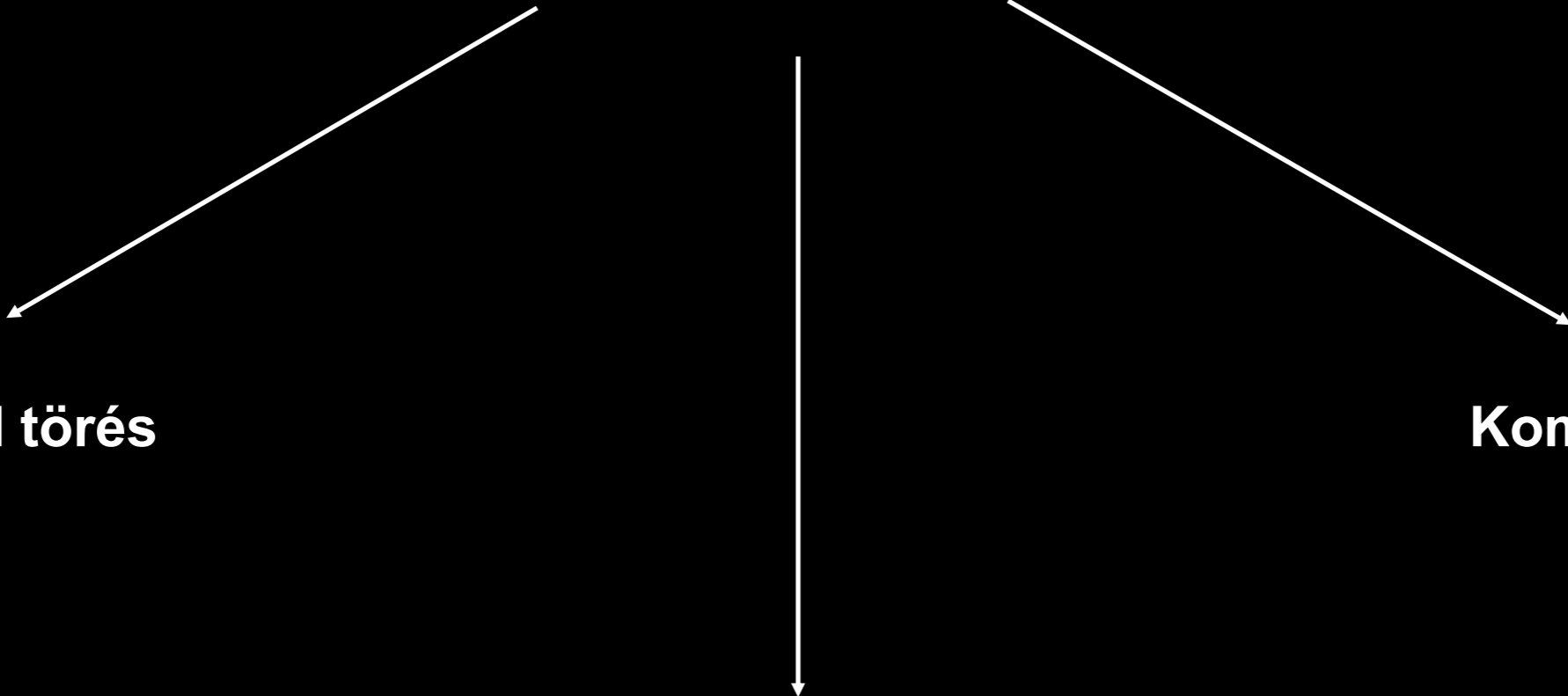
Indikáció

CII törés

Odontoid törés

Kombinált sérülés

Ív törés (Levine-Edwards)



Indikáció

Odontoid fracture classification



Type I :
Fracture of the upper part of the odontoid peg ; it's rare and potentially unstable

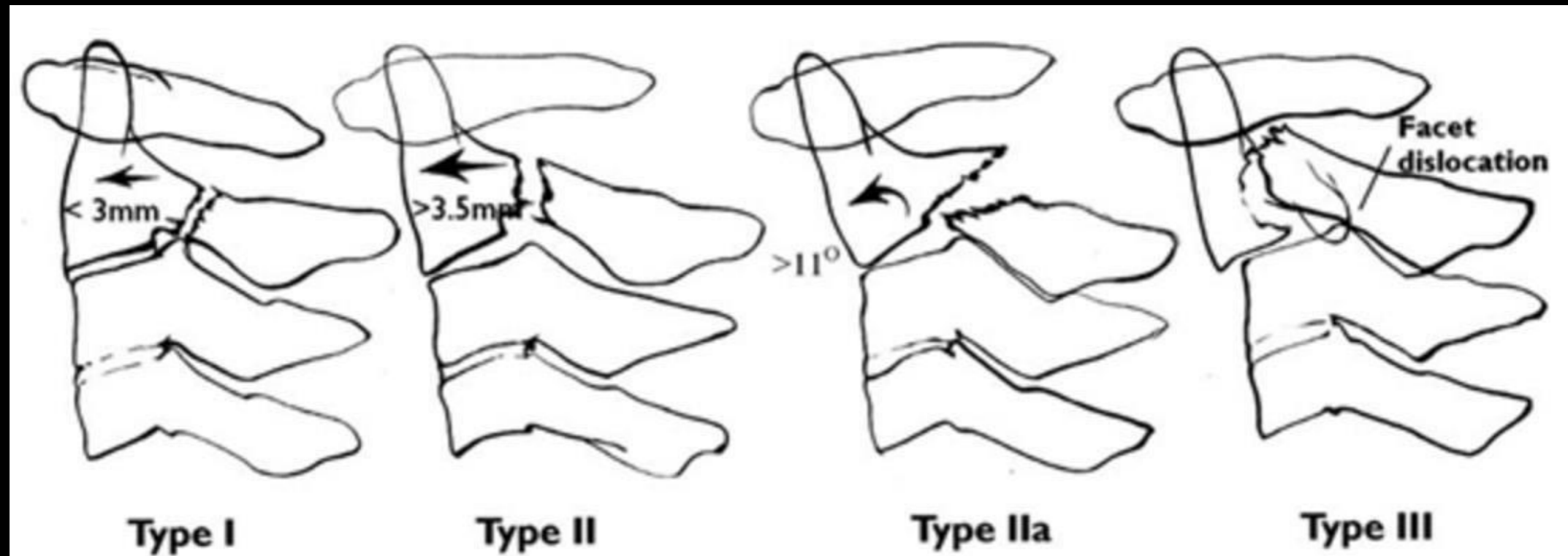


Type II :
Fracture at the base of the odontoid ; unstable, and has a high risk of non-union



Type III :
Through the odontoid and into the lateral masses of C2 ; best prognosis for healing

Levine-Edwards



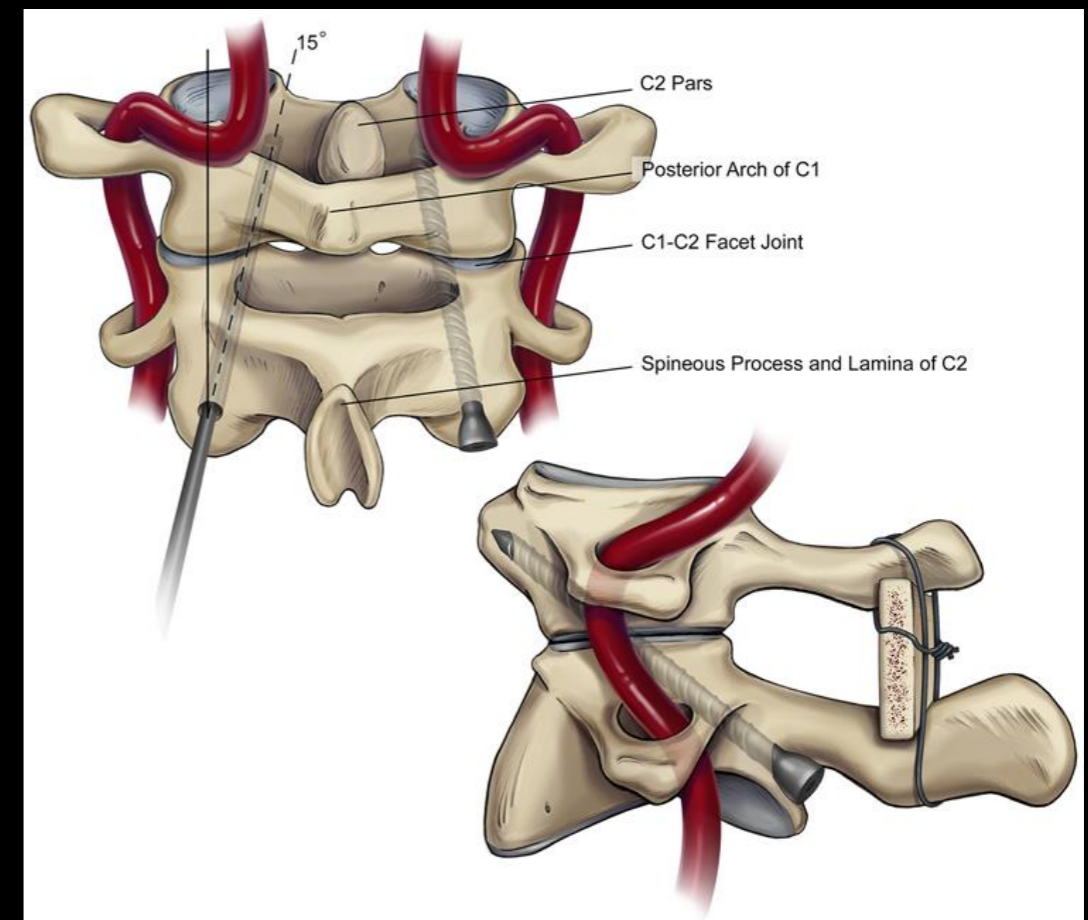
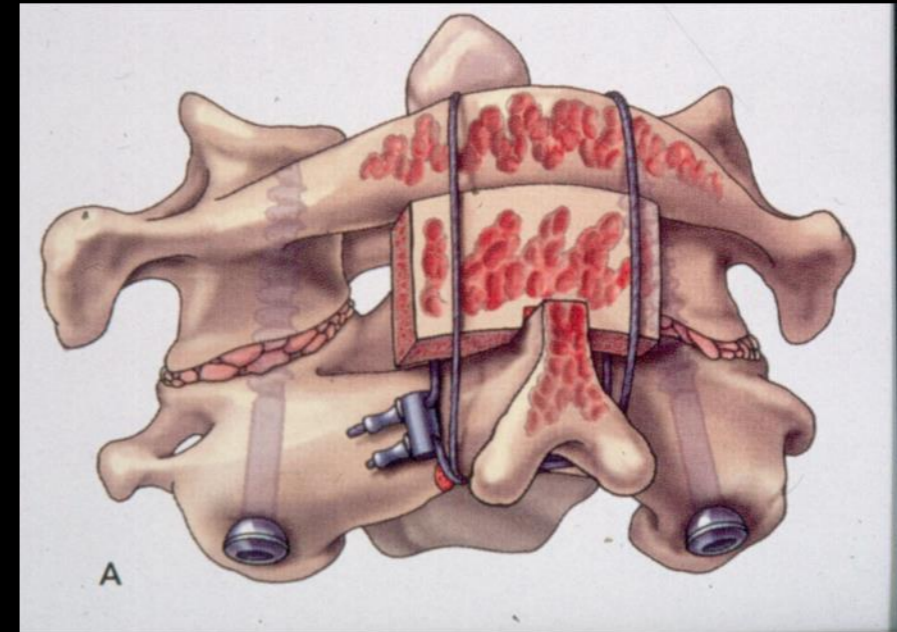
Classification	Definition	Mechanism
Effendi		
Type I	Isolated hairline fracture of ring of axis	Axial loading and hyperextension
Type II	Displacement of anterior fragment and abnormal disk below axis	Further hyperextension and rebound flexion
Type III	Displacement of anterior fragment and locked facet at C2-C3	Flexion and rebound extension
Levine and Edwards		
Type I	Nondisplaced fracture (<3 mm)	Hyperextension and axial loading
Type II	Significant angulation (>11 degrees) and translation (>3 mm)	Hyperextension, axial loading and rebound flexion
Type IIa	Very severe angulation without translation	Flexion-distraction
Type III	Severe angulation and displacement with facet dislocation	Flexion-compression

Formái

- Gaille fúzió
- Laminaris lehorgonyzás (laminar hooks)
- Posterior atlantoaxialis transarticularis csavarozás (Magerl-Sonntag)
- Posterior C1-II csavaros-rudas fixatio (Harms-Goel)
- Kombinált Magerl-Harms
- Anterior C1-II fixatio (csavaros/lemezes)

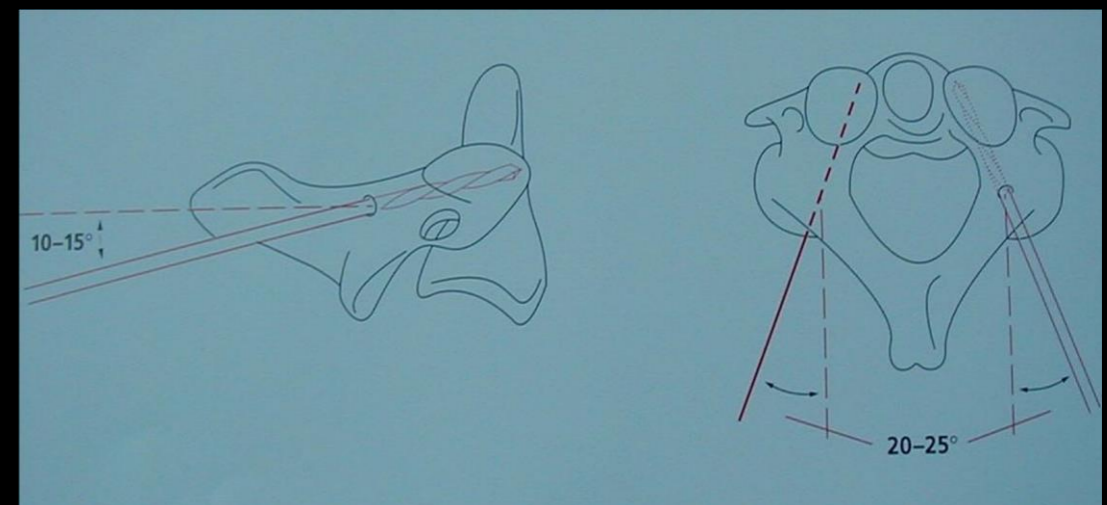
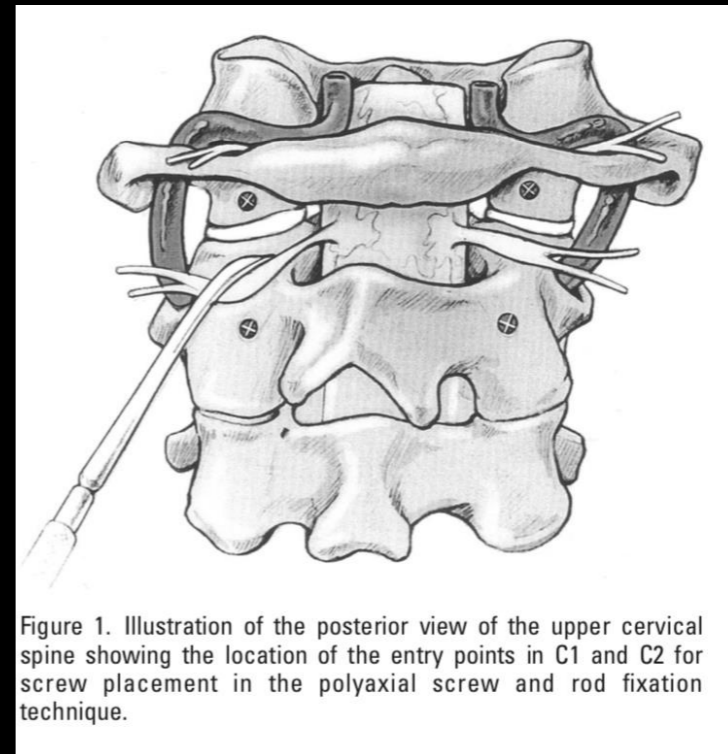
Magerl-Sonntag

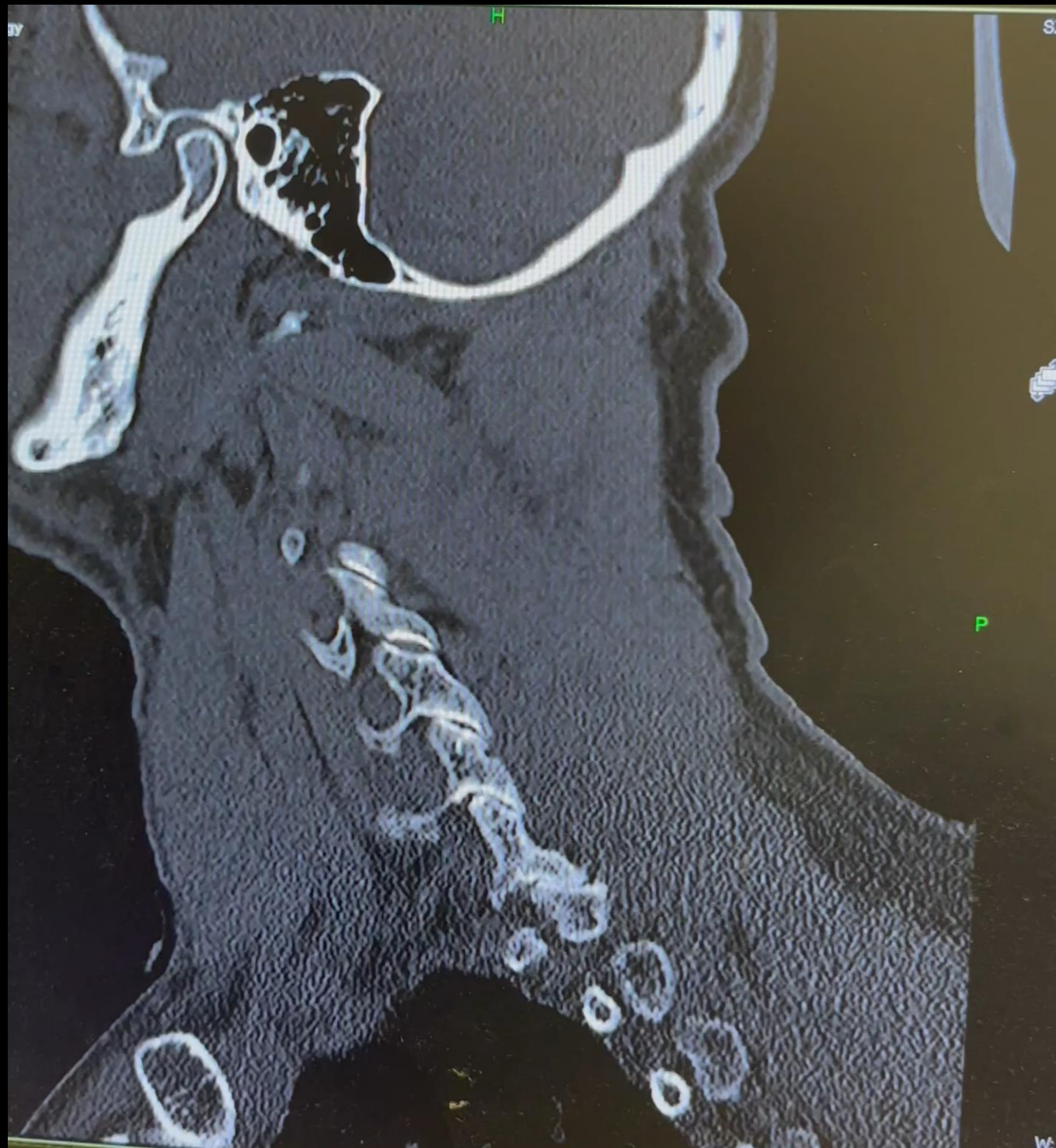
- HALO-ban repositio
- Hátsó feltárás
- C1-II transarticularis csavarozás
- C1-II tűzés, csontgraft behelyezés/ lemezes synthesis
- Jó fúziós ráta, de technikailag nehéz
- Ritkán alkalmazott

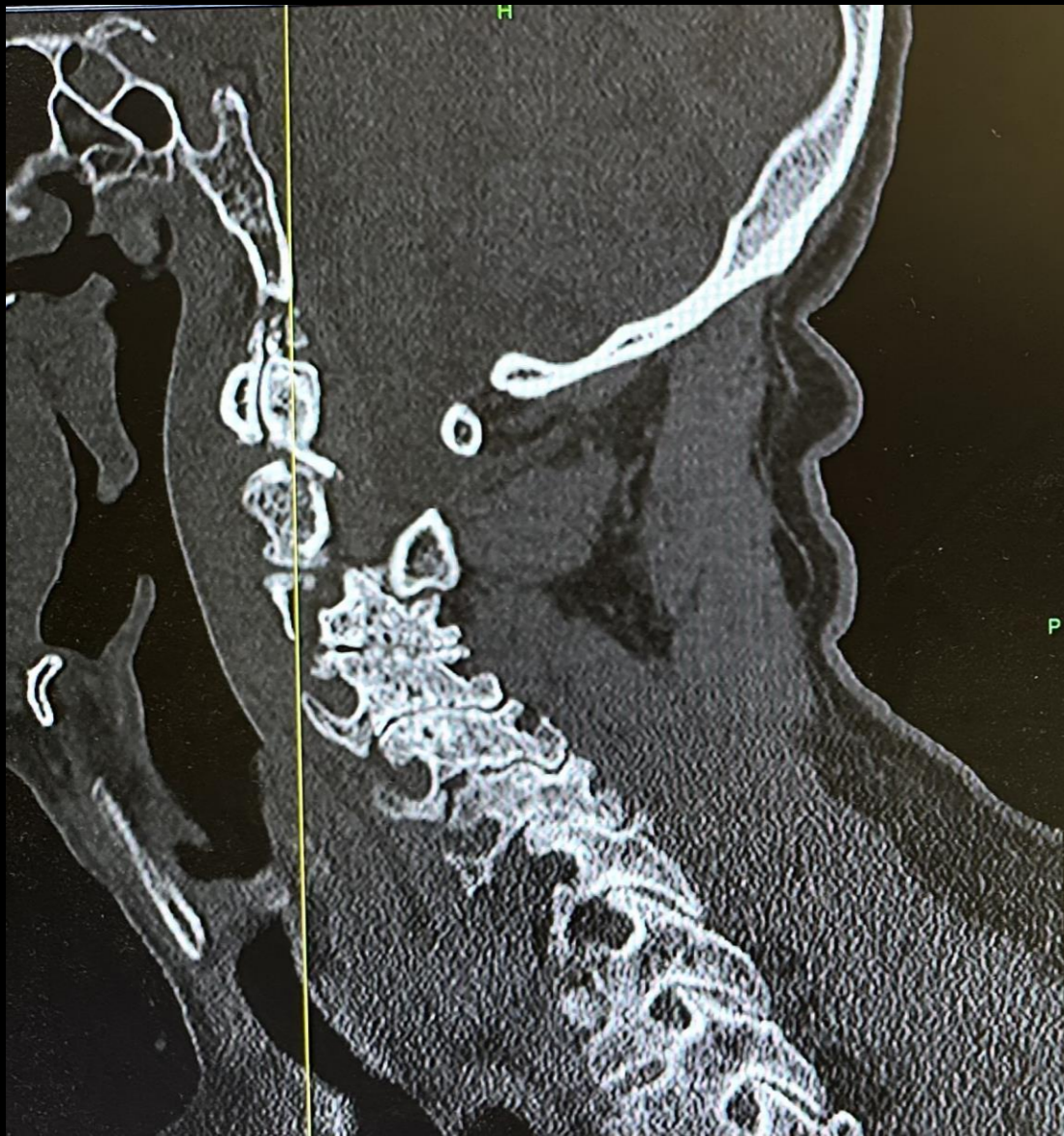


Harms-Goel

- Hátsó feltárás, fej Mayfield-ben rögzítve
- POE-CIII/IV-ig subperiostealis feltárás
- C1-II vénás plexus
- Dissector CII pars interarticularis
- 1-2 mm-es próba furat, majd lehetőség szerint
- Csavarbehelyezés







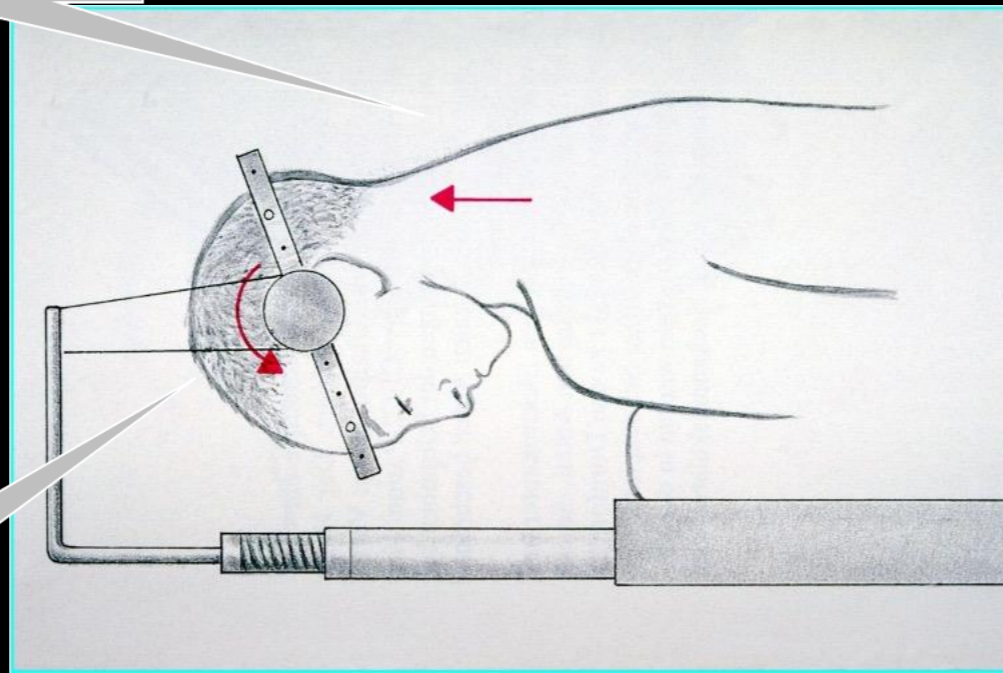
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Héderi Károly György
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MRN: 020727637
DOB: 1956.09.19
BP:
ST: 1.5
Series: 206
Im: 36/118



Fektetés

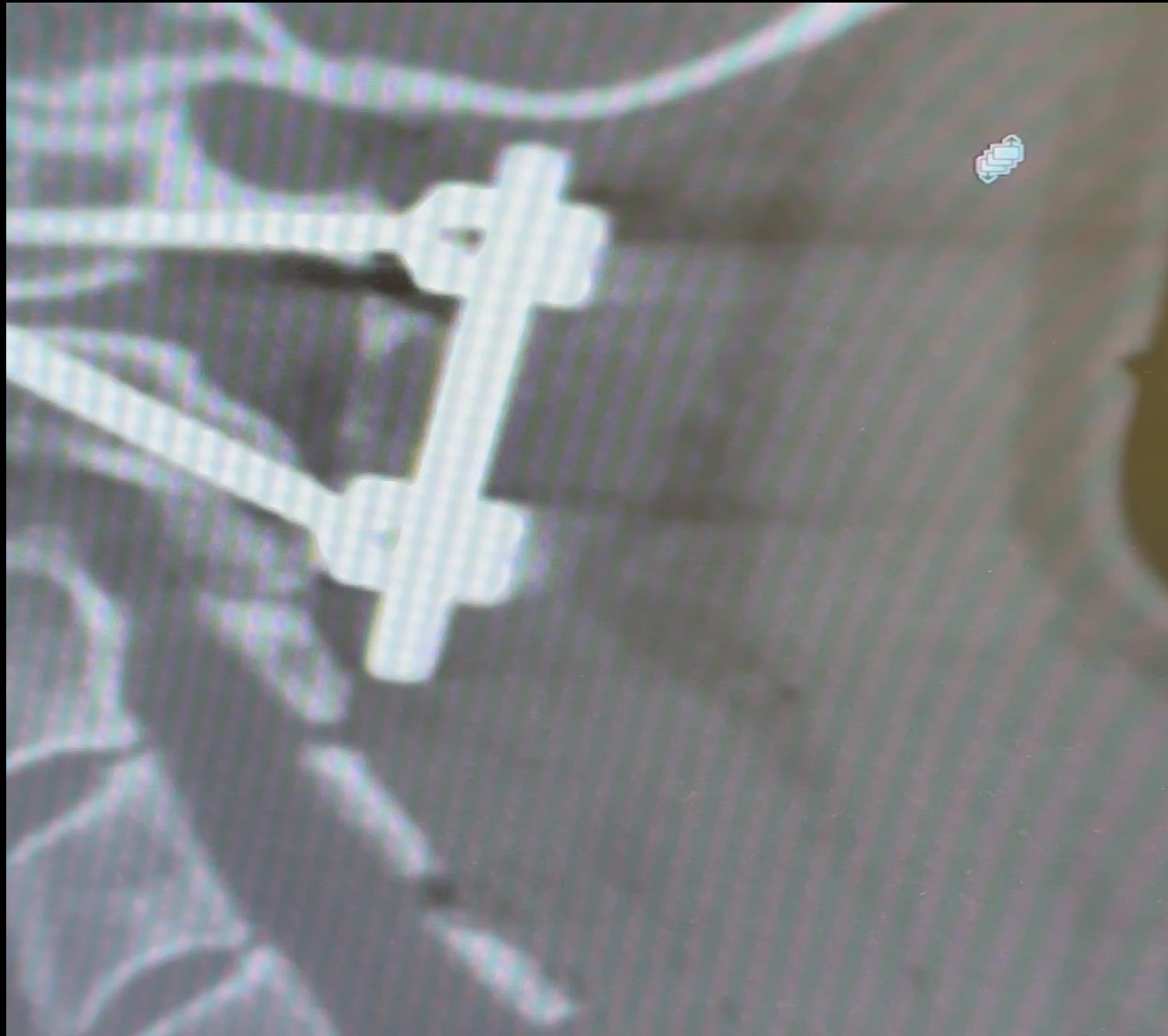
Extension C2-C7



Flexion C0/C1









TOP-X DR TRAUMA
2022.11.29
09:02:00
Prior 2

Hideri Karoly Gyurgy
ACC: 25068433
MRN: 020727637
DOB: 1956.09.19
Series: 1
Im: 2/1

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2022.11.29

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Köszönöm a figyelmet

