



Rygkirurgi for operationssygeplejersker





Rygkirurgi

Degenerative sygdomme i hals- og lænderyg samt den kirurgiske behandling heraf.

Den rykirurgiske uddannelse indenfor specialet neurokirurgi.

Jørgen Degn

Uddannelsesansvarlig overlæge i neurokirurgi

Rigshospitalet-Glostrup 2021

Forord

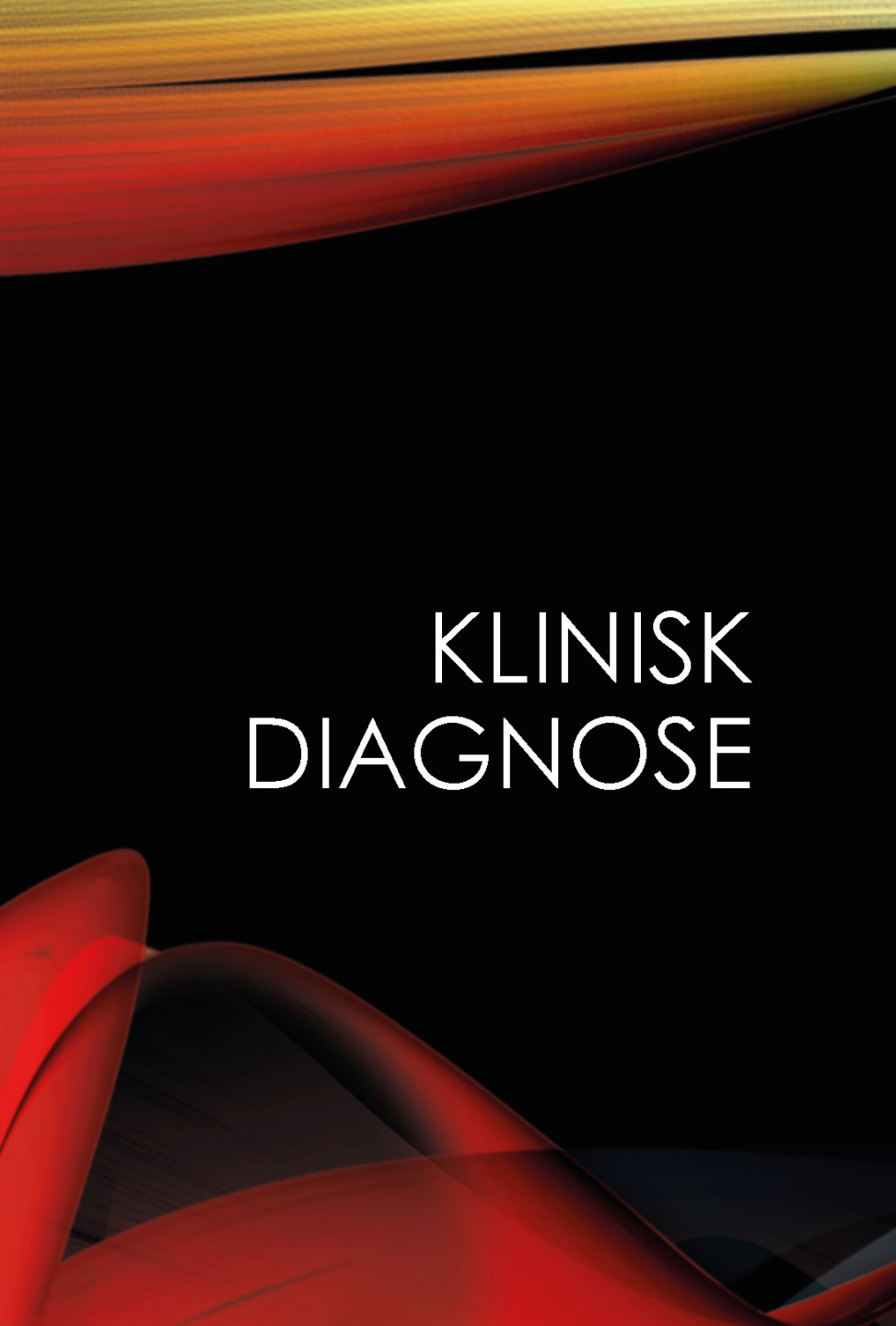
- 1 RLB
- 2 Rygseminariet
- 3 Uddannelsen til neurokirurg
- 4 Ortopædkirurger på fokuseret ophold
- 5 Degenerative rygsygdomme
- 6 Diskusprolaps
- 7 Spinalstenose
- 8 Cervikalt Tværsnitssyndrom
- 9 Spondylolistese
- 10 Akut rykirurgi
- 11 Medicinske problemstillinger
- 12 Rygundersøgelsen
- 13 MR-skanning
- 14 Differentialdiagnoser
- 15 Procedurer
- 16 Sundhedsplatformen
- 17 Ryggens anatomi



E-bog

RYGKIRURGI

- DEKOMPRESSION (FRILÆGNING)
- SPONDYLODESE (STIVGØRING)
- KORREKTION (OPRETNING)



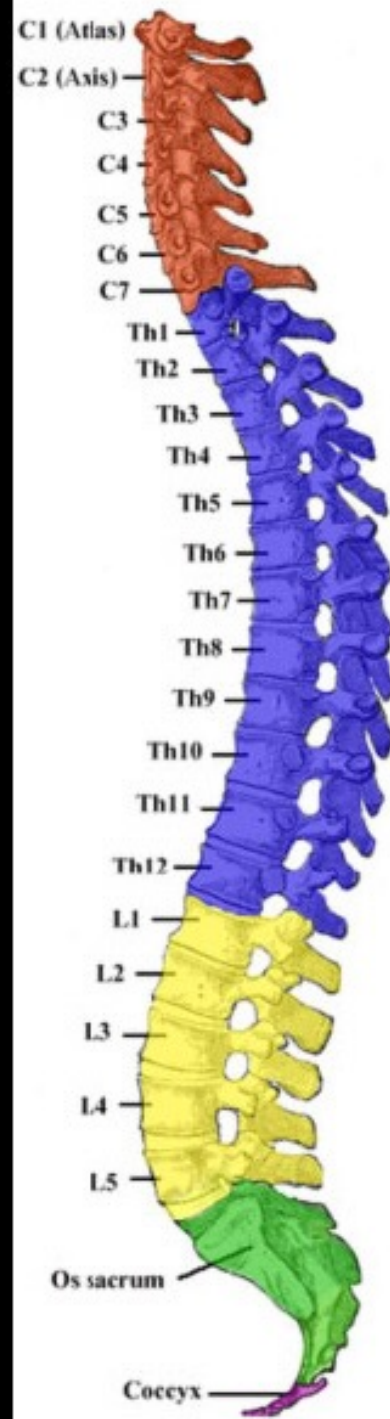
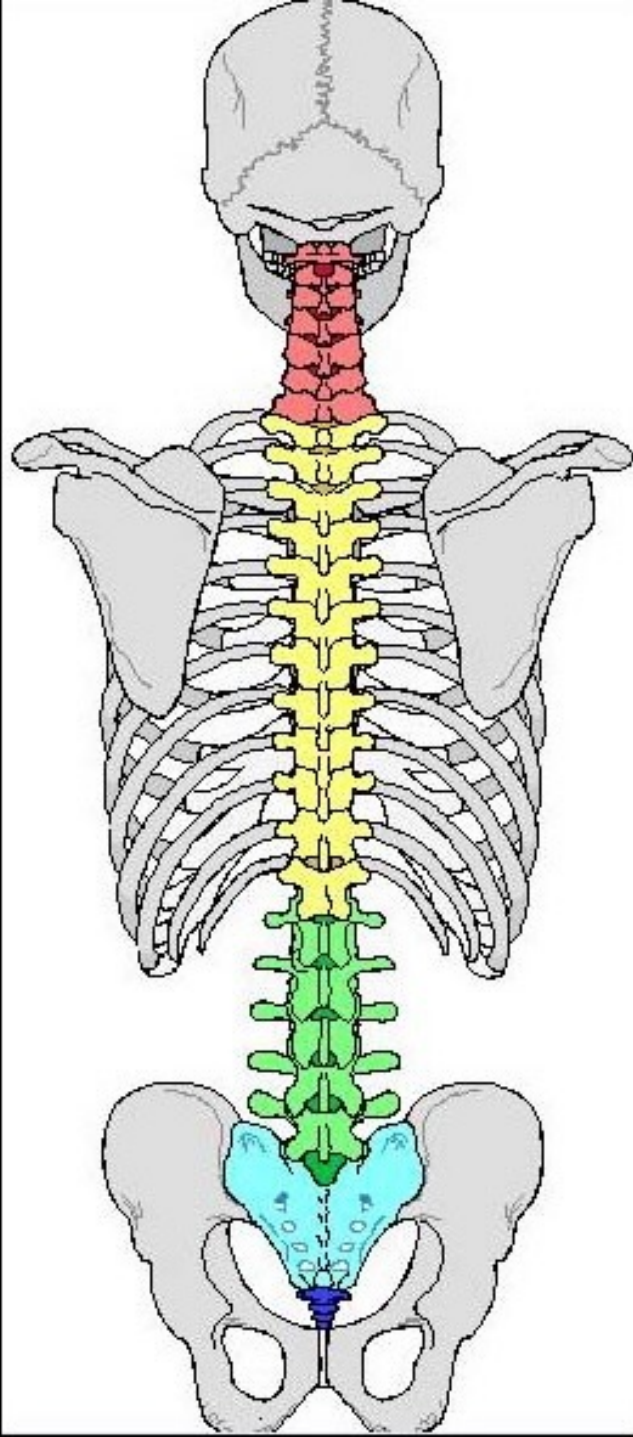
KLINISK DIAGNOSE

Symptomer

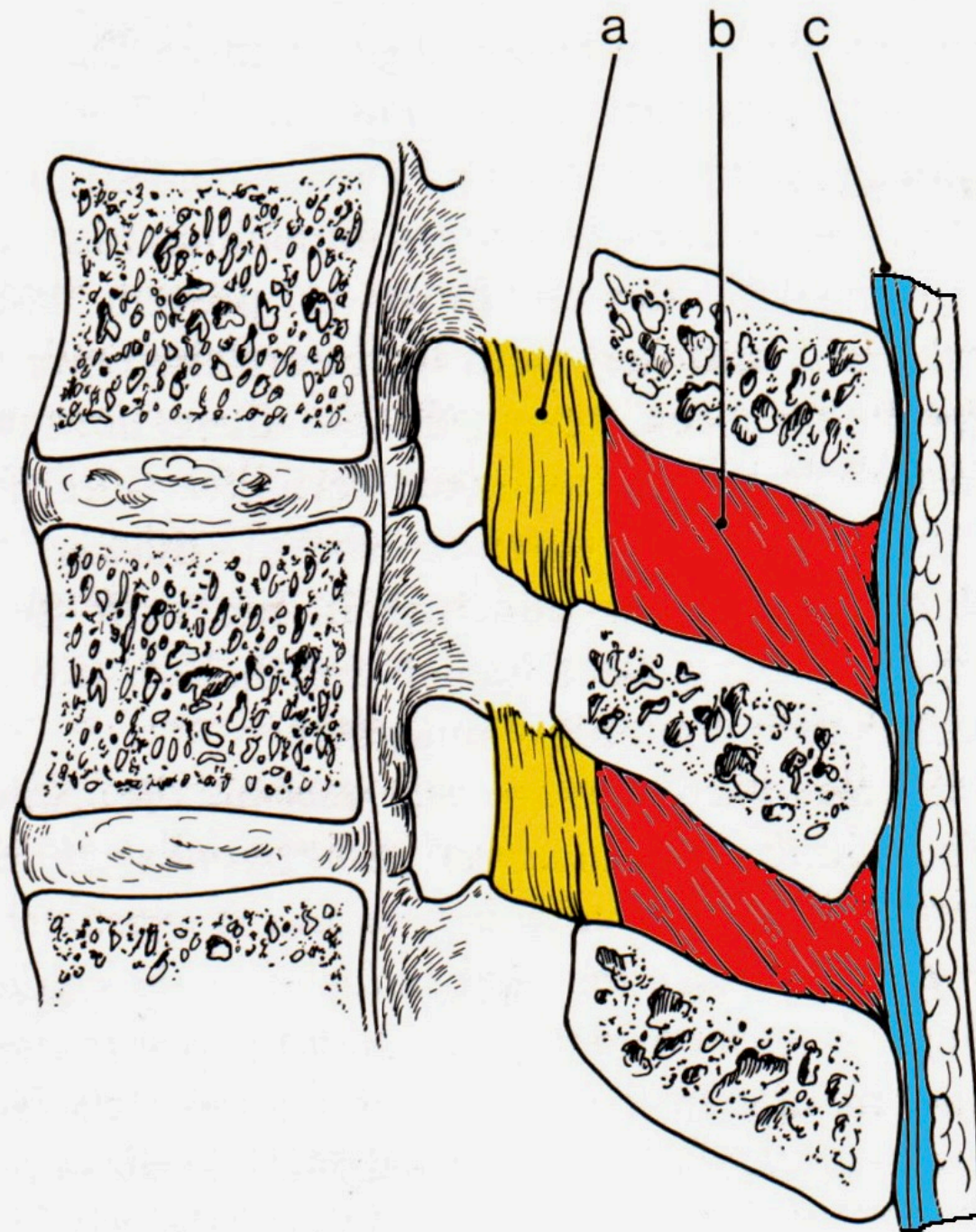
Kliniske fund

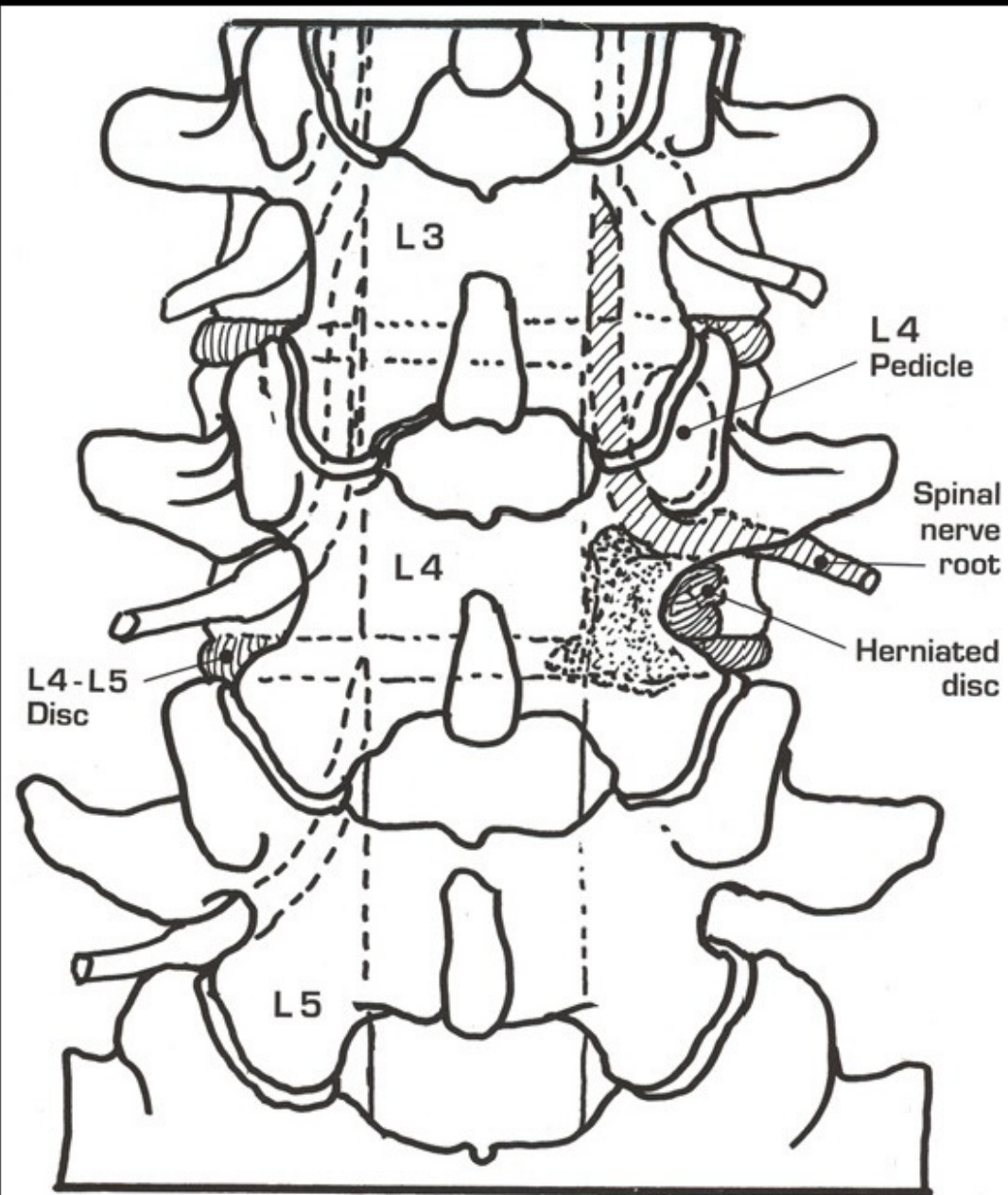
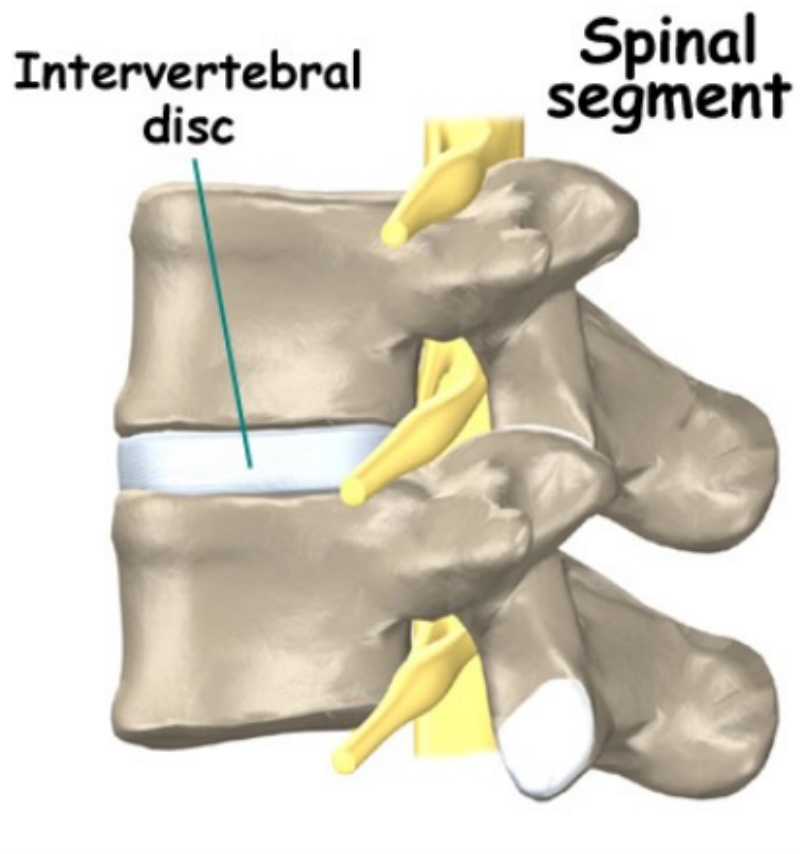
Skanning

Anatomi





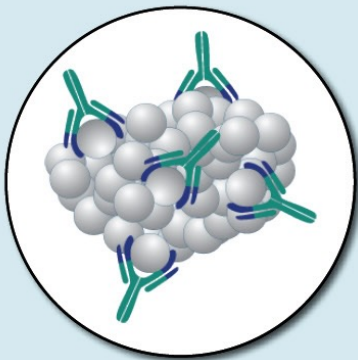
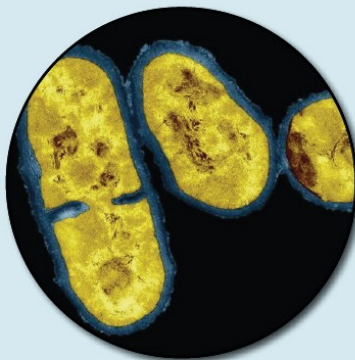




Hvordan
opstår
"slidgigt" i
ryggen?





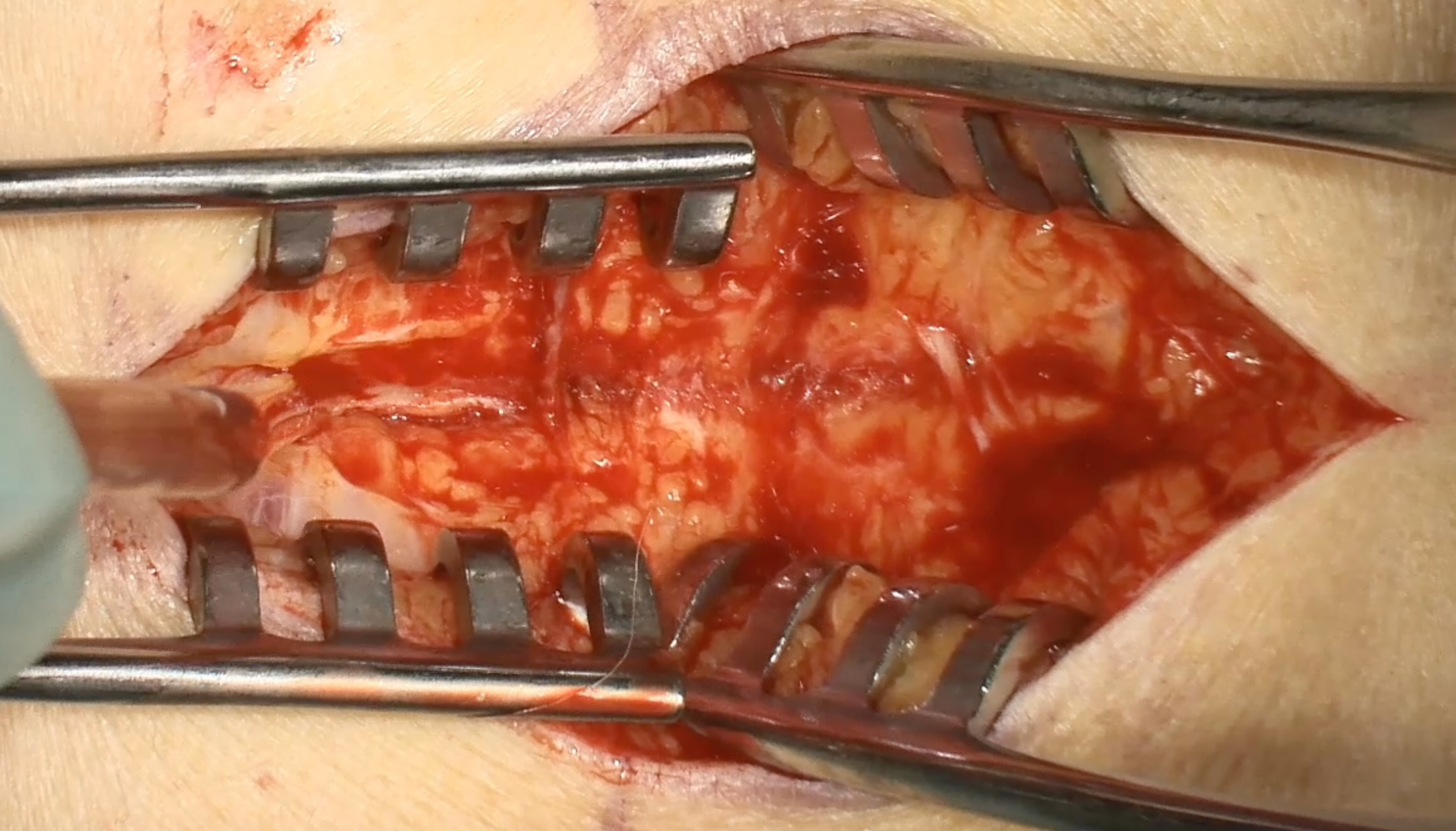


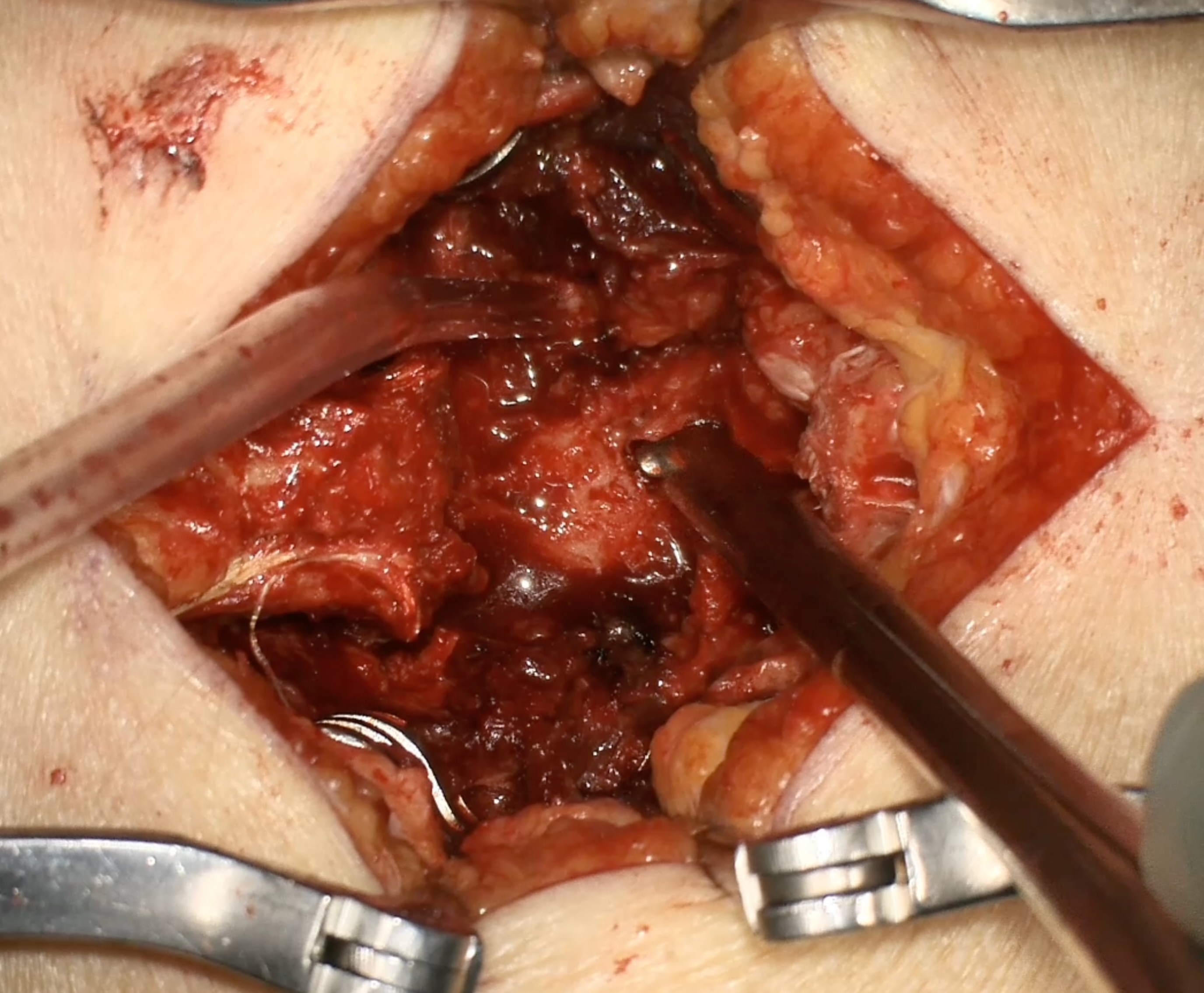
Multifaktoriel kumulativ model

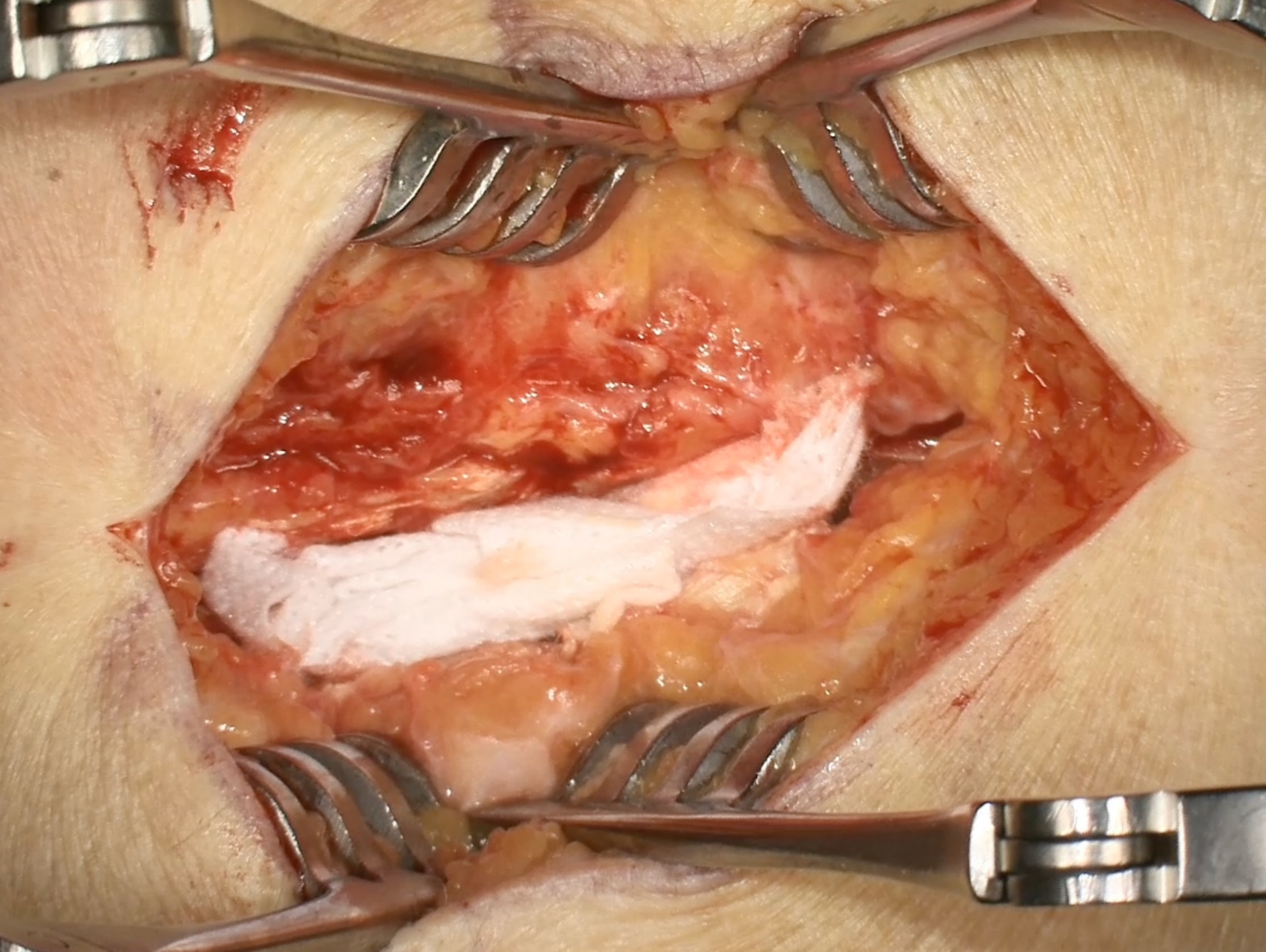


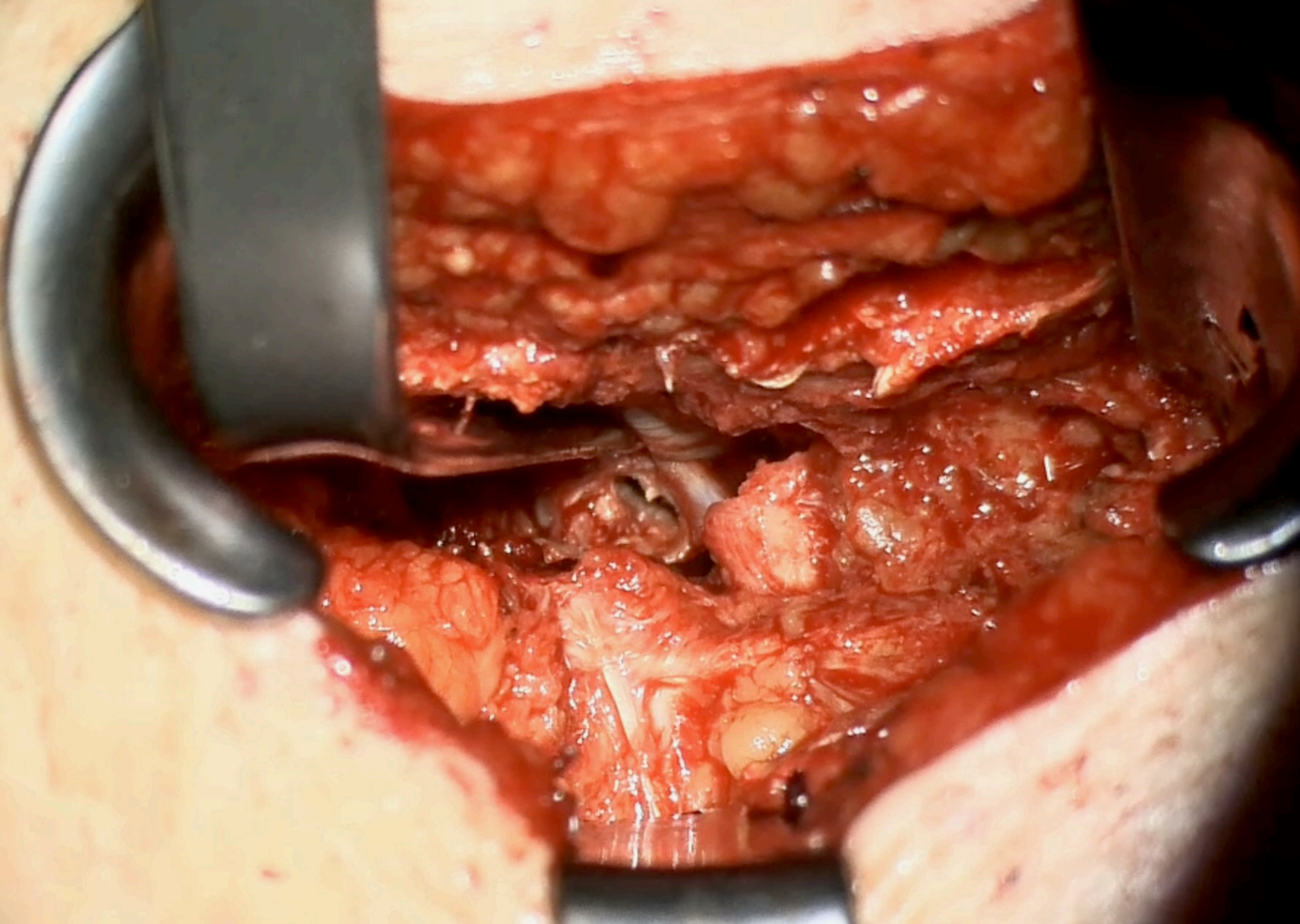
Assistance

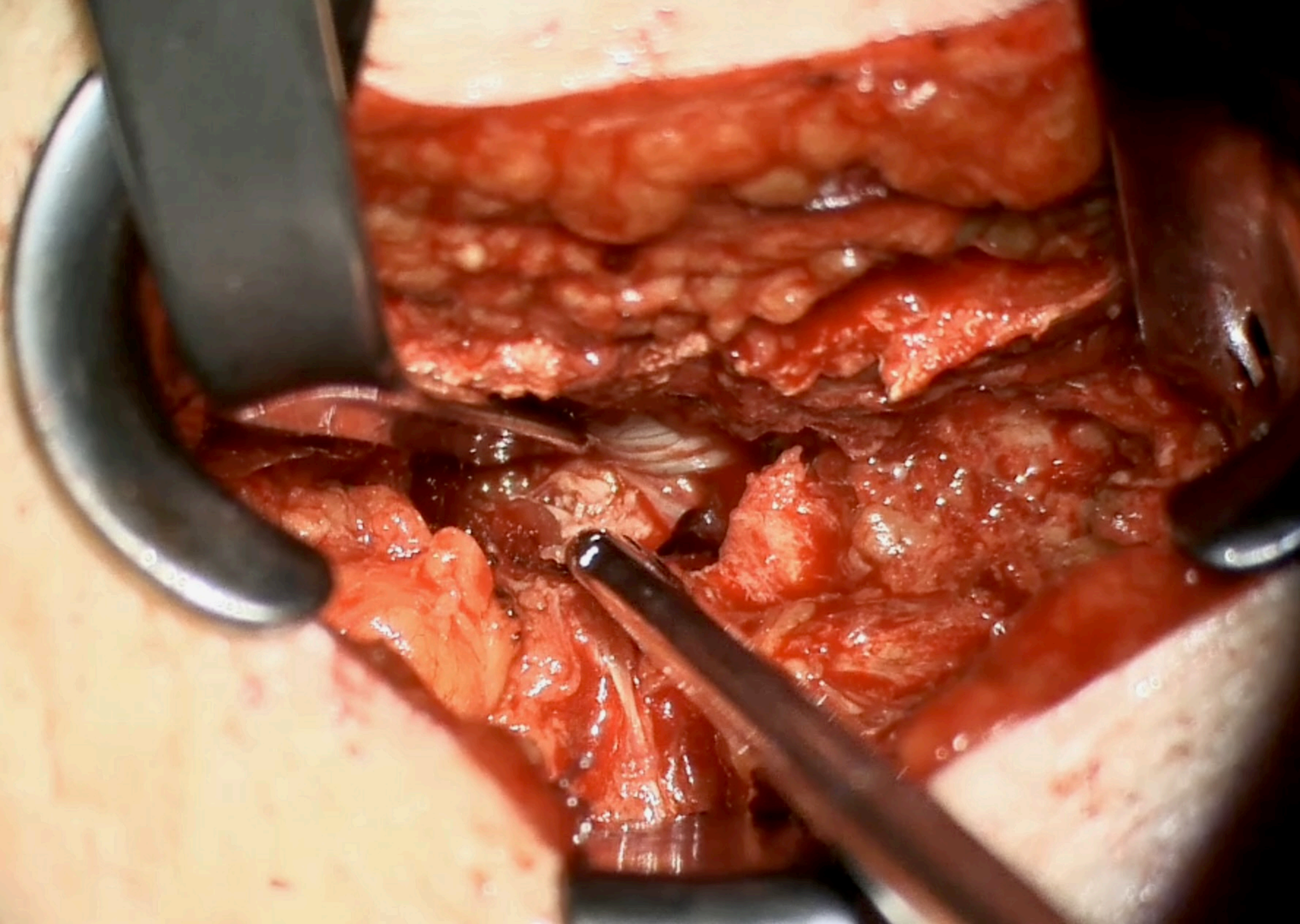


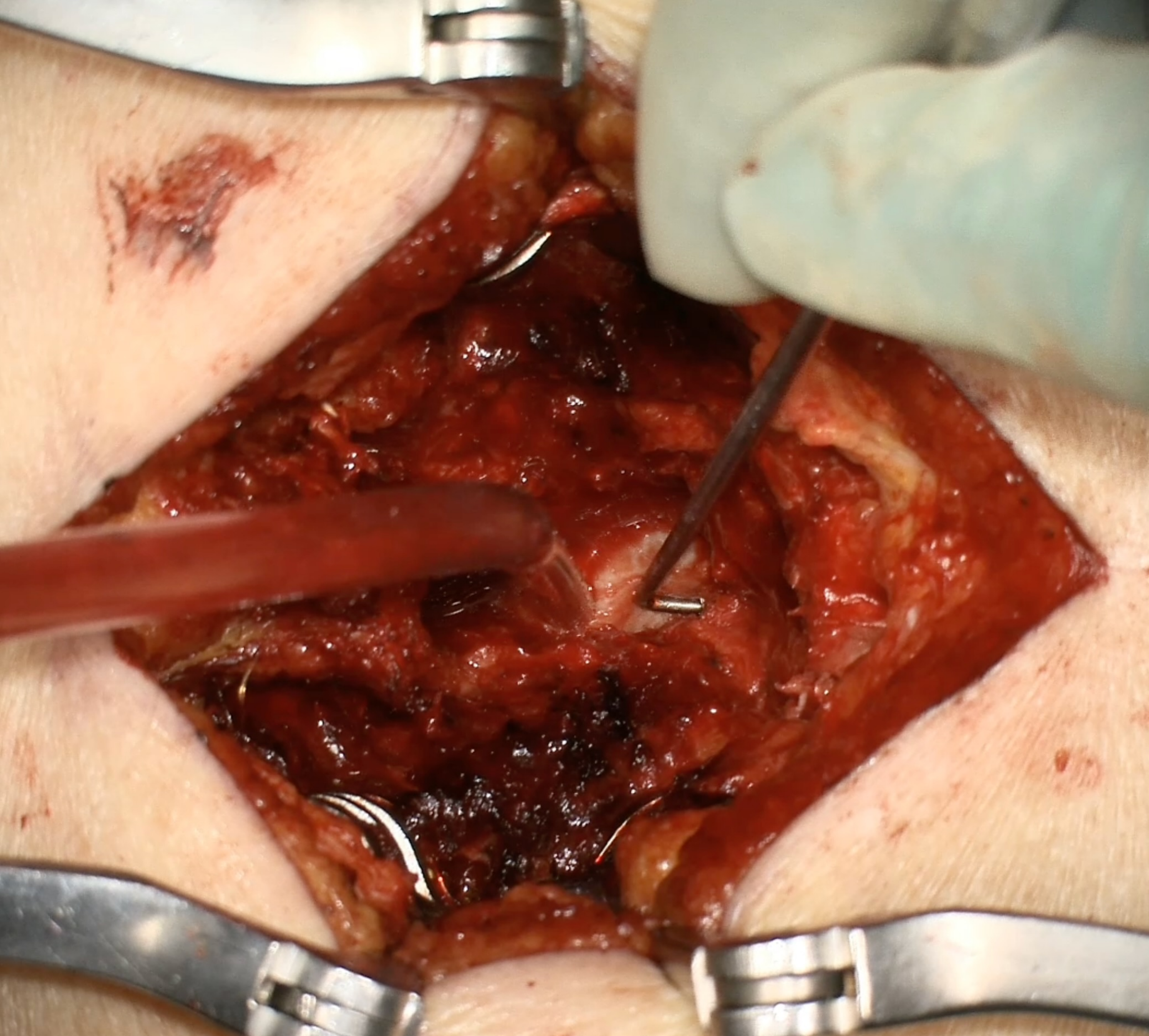


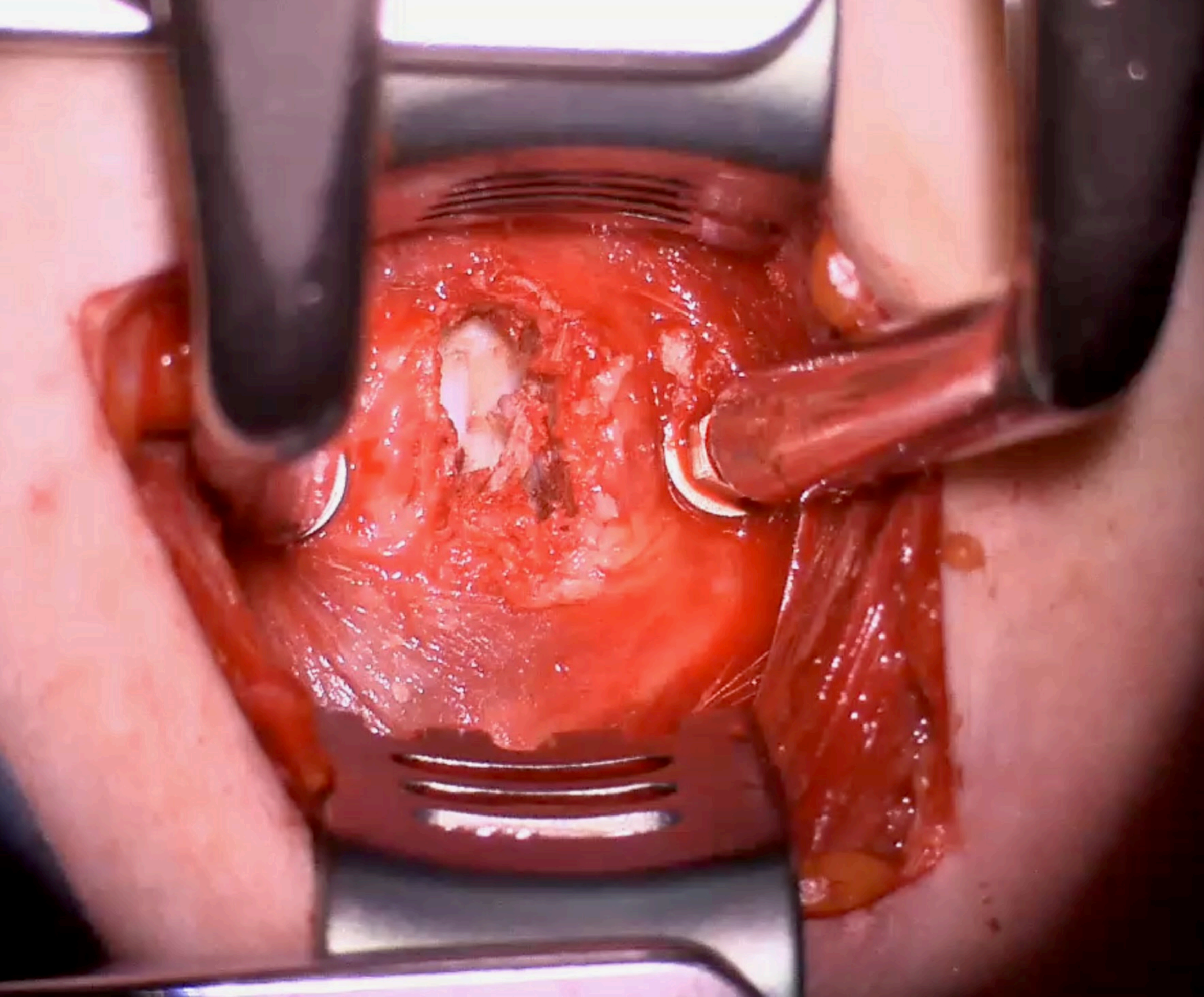












Lumbar
stenose

LAMINEKTOMI

01

Neurogen
claudicatio ved
lumbal spinal
stenose

02

Cauda equina
syndromet -
AKUT

03

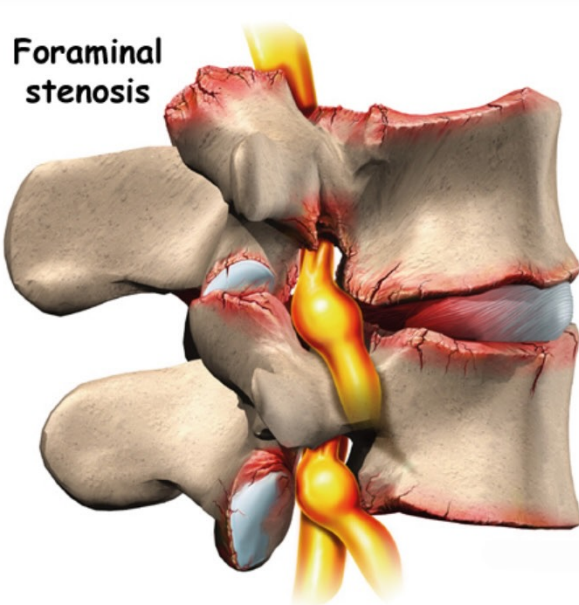
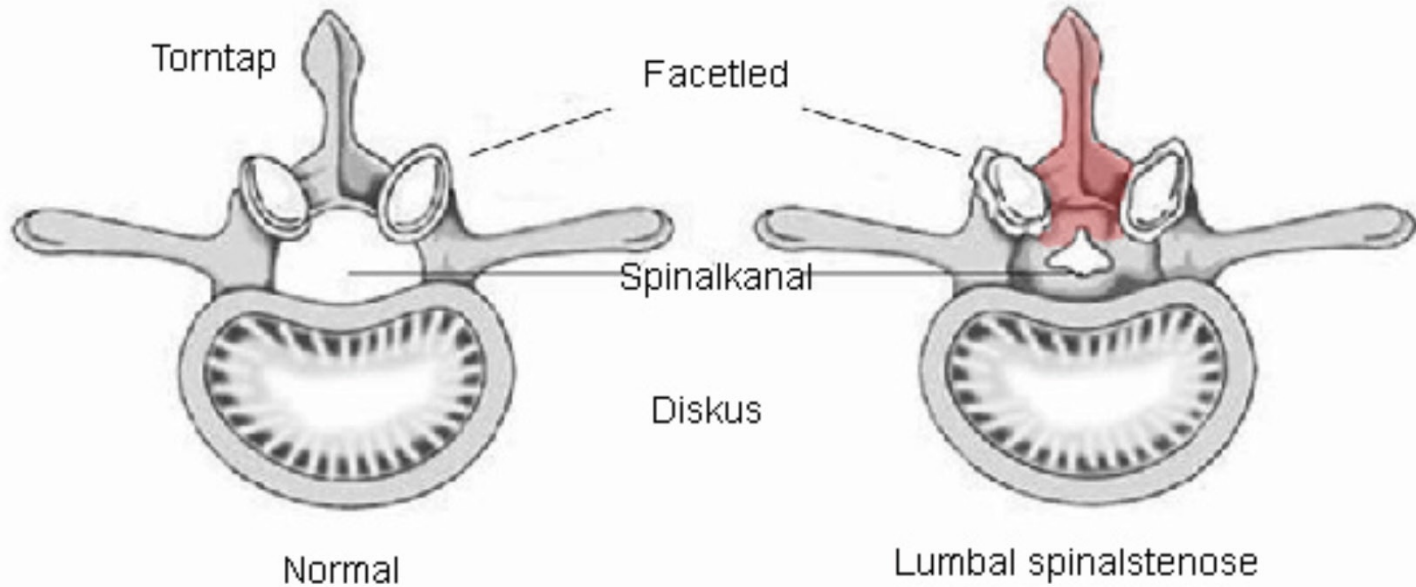
Rodfrilægning
ved lumbal dese

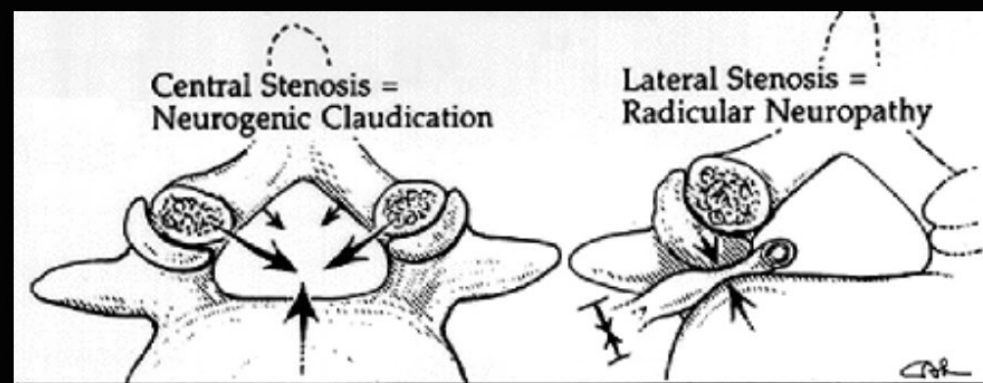
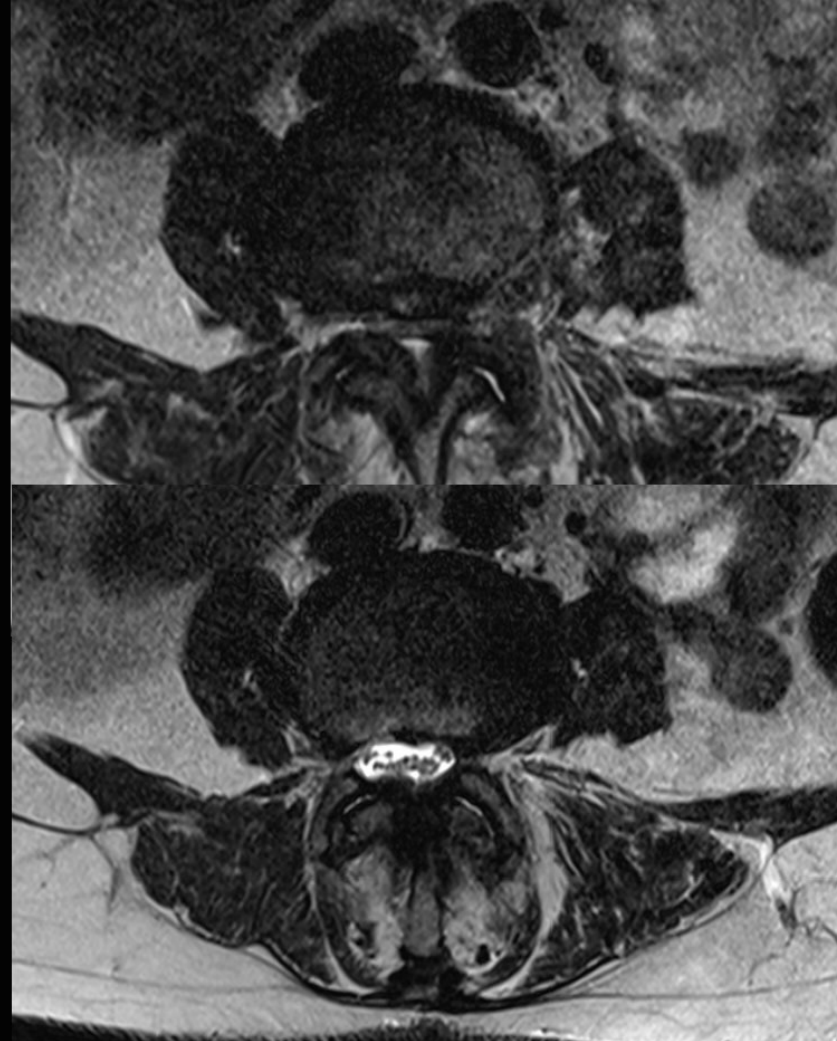
Lumbal spinalstenose

- Rygsmerter
- **Radikulære smerter** (oftest uden neuoudfald)
- **Neurogen claudicatio** ved gang: reduceret gangdistance – ingen problemer med at cykle
- Foroverbøjning lindrer – ekstension forværrer
- Progredierende og intermitterende symptomer – forværring ved aktivitet

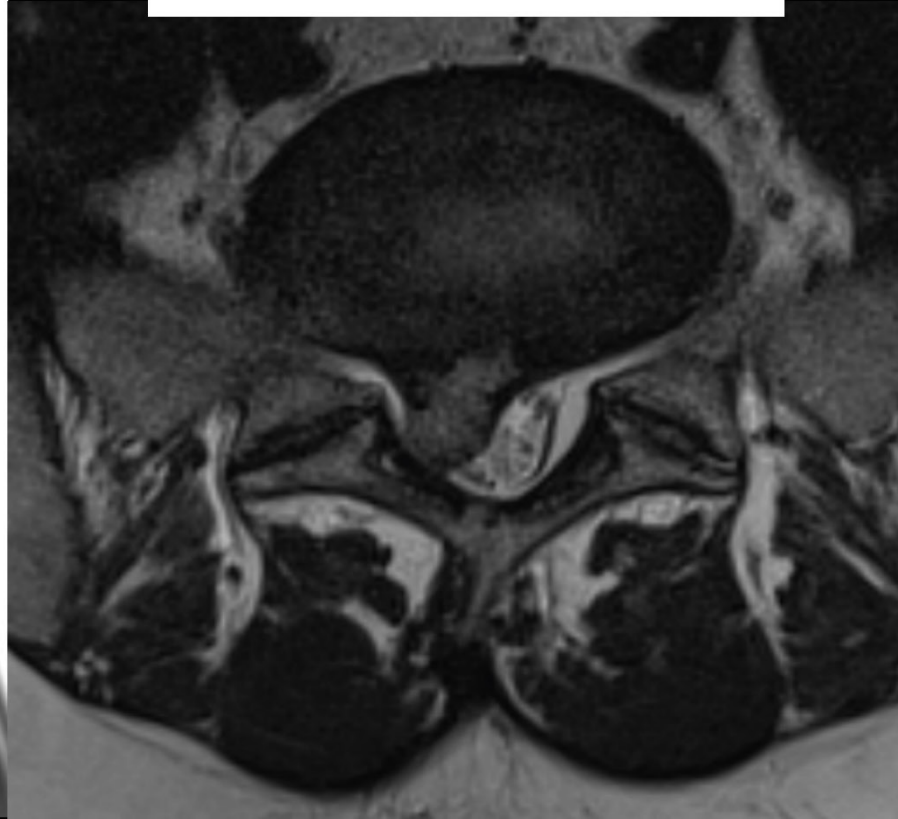
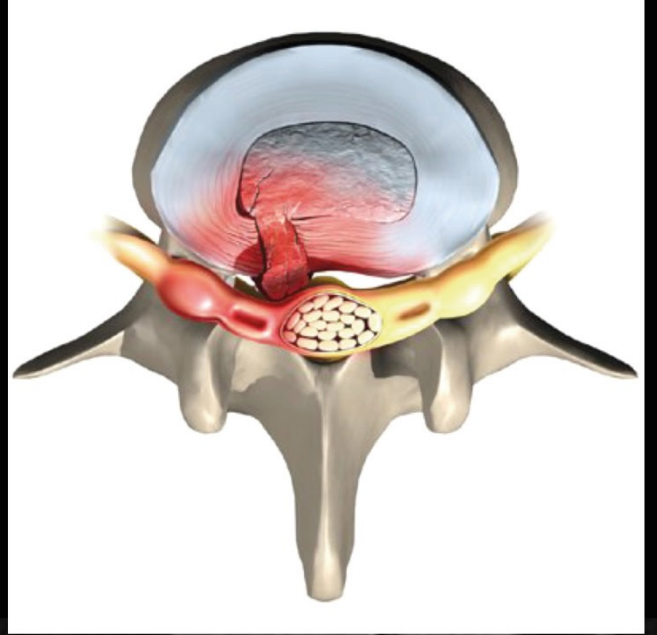


Central eller foraminær type





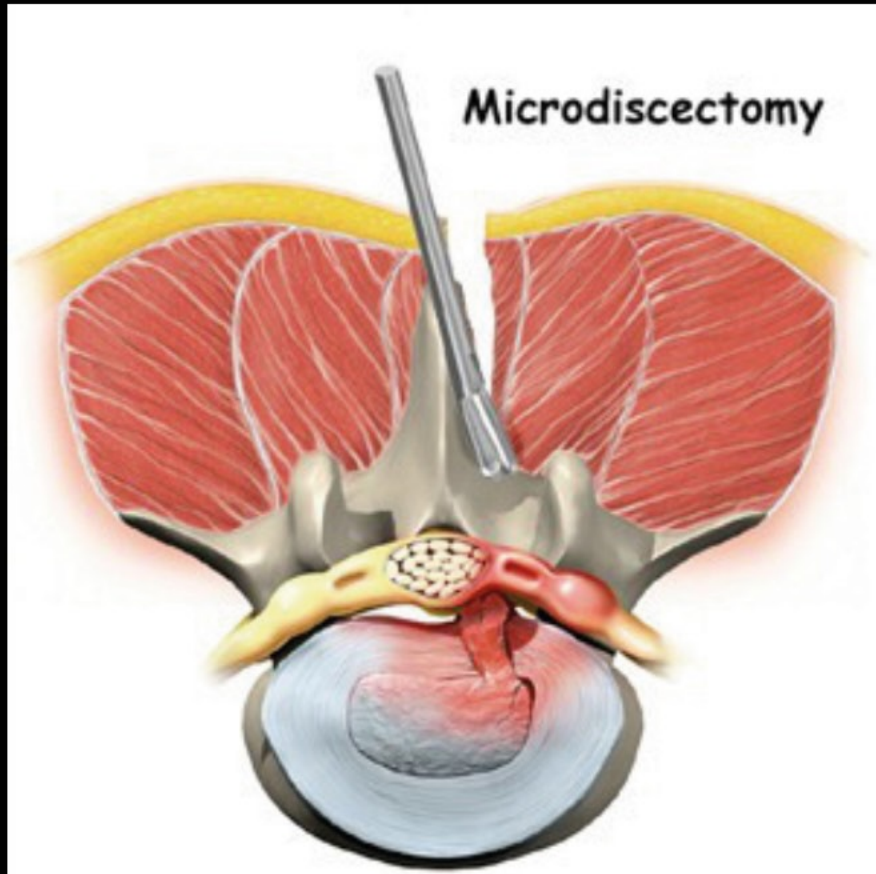
Lumbar
prolapse



PARTIEL HEMILAMINEKTOMI - LP

- Bensmerter (monoradikulopati)
- Hæmatom, recidiv, restprolaps, durarift, nerveskade

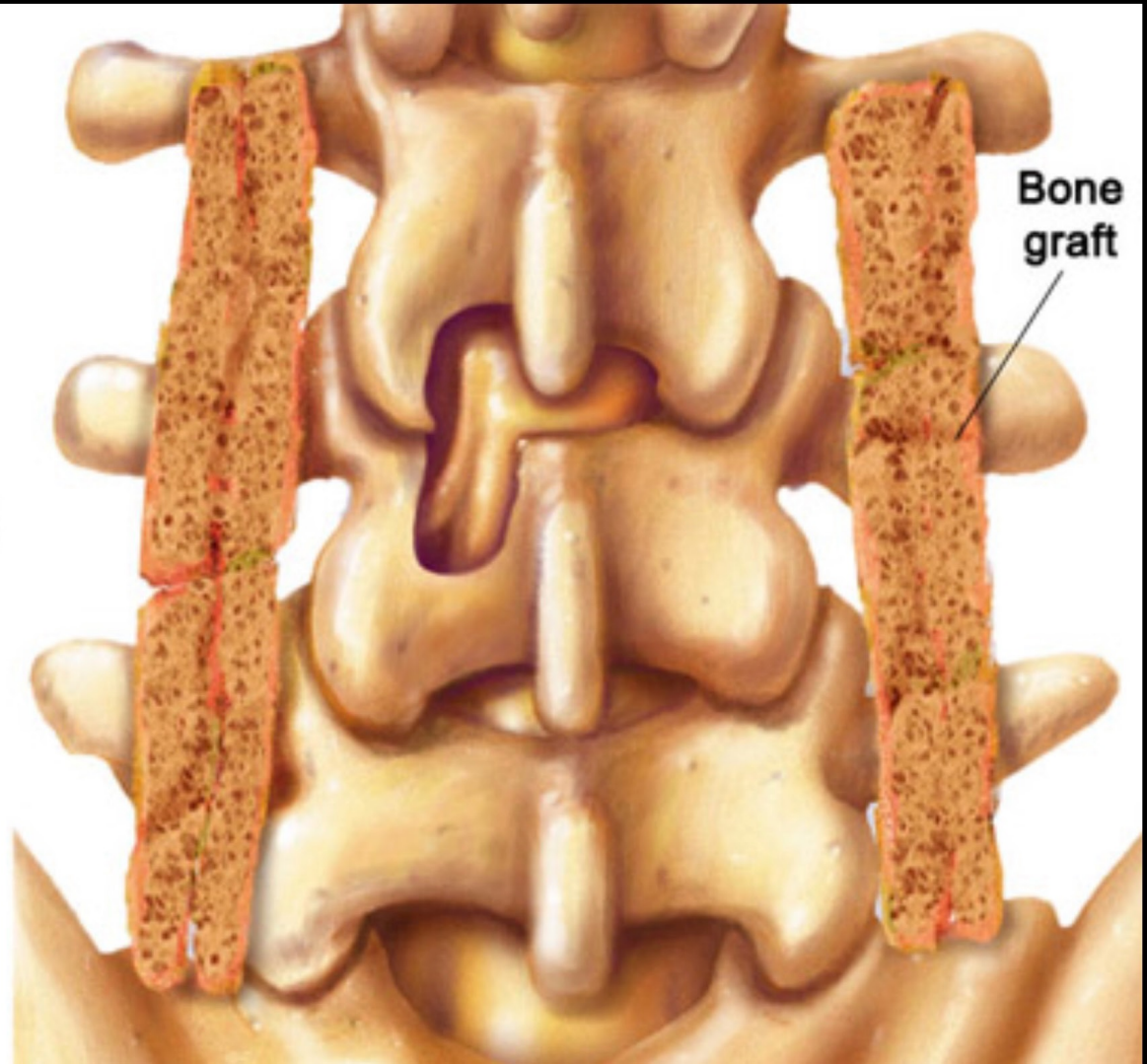
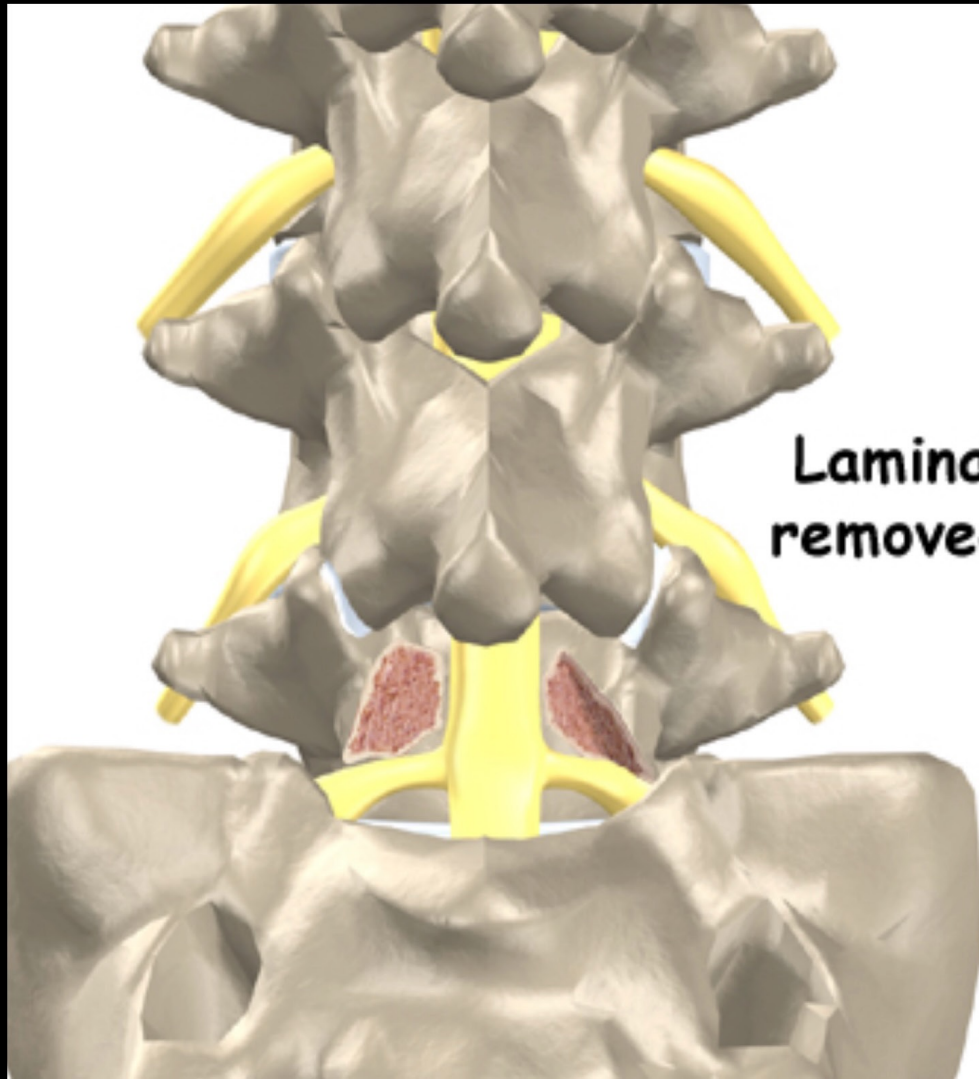
MIKROKIRURGISK INDGŘEB



Lumbar
dese

Laminektomi, rodfrilægning, NID

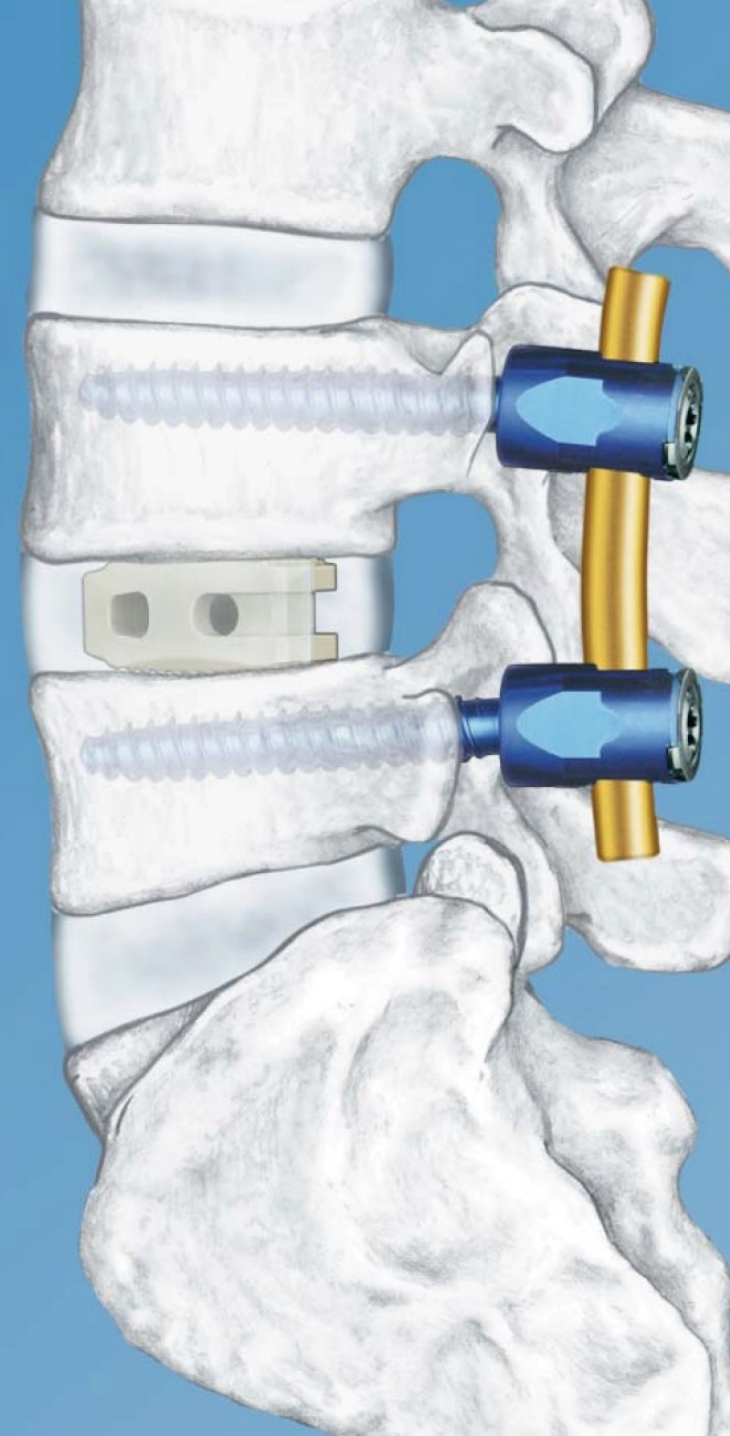
Facetleddet bevares – 4% udvikler instabilitet

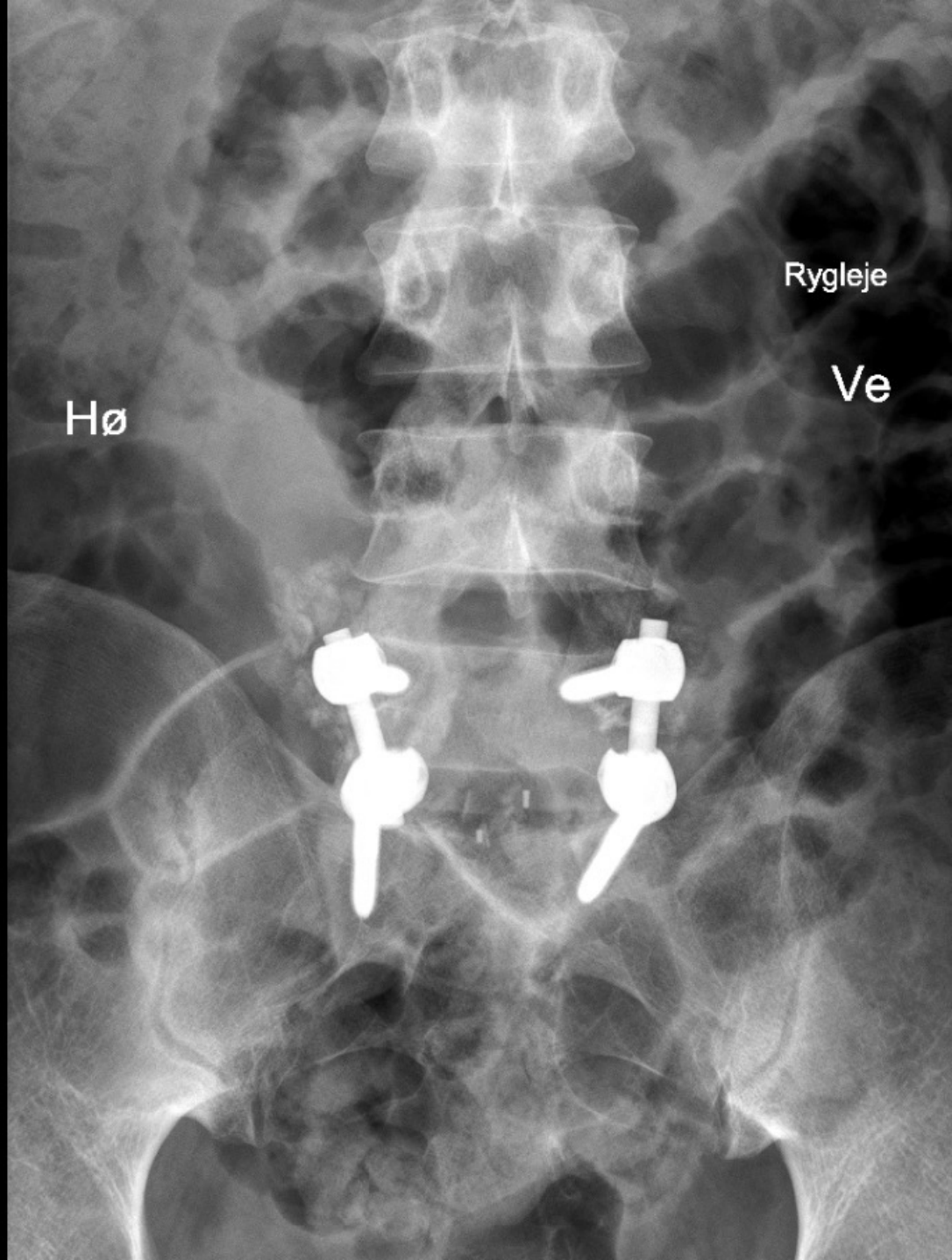
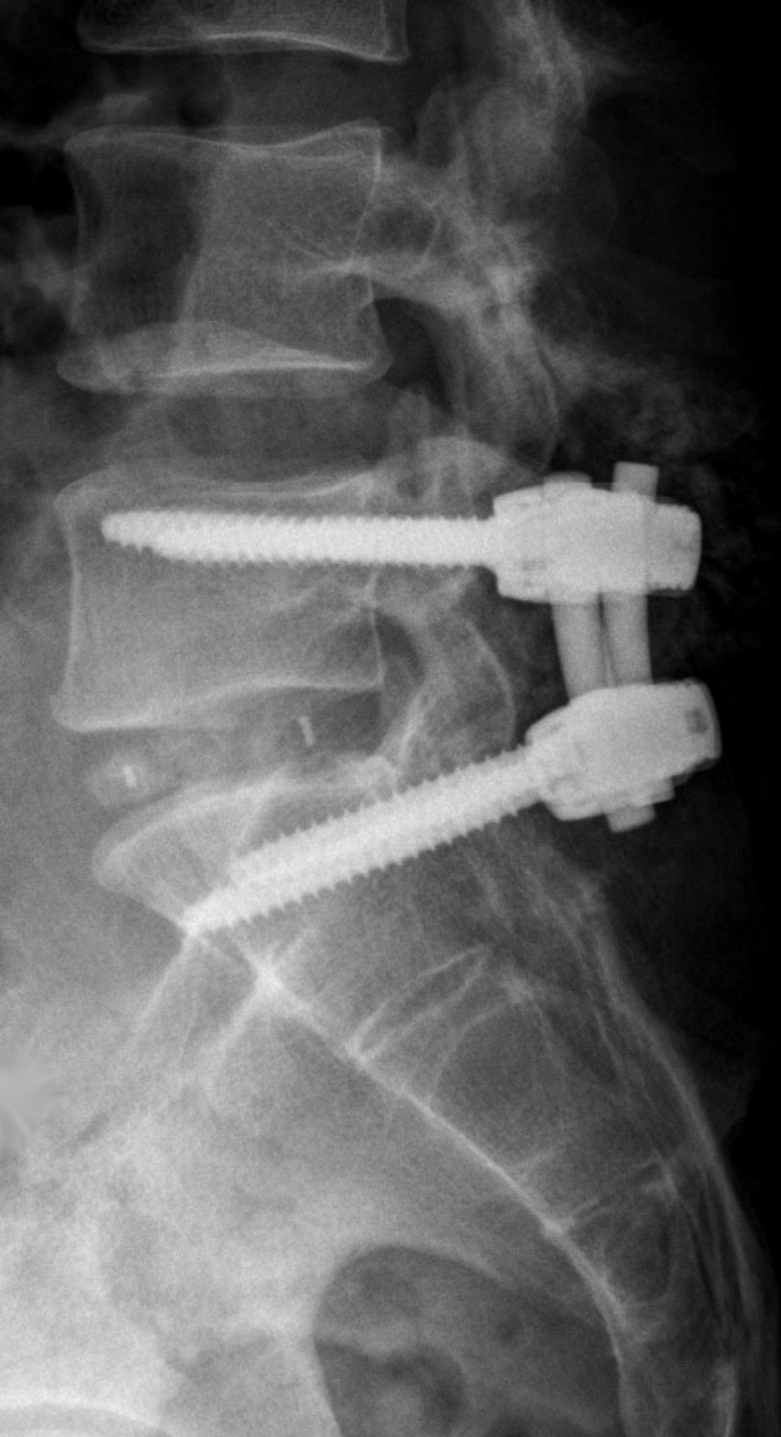


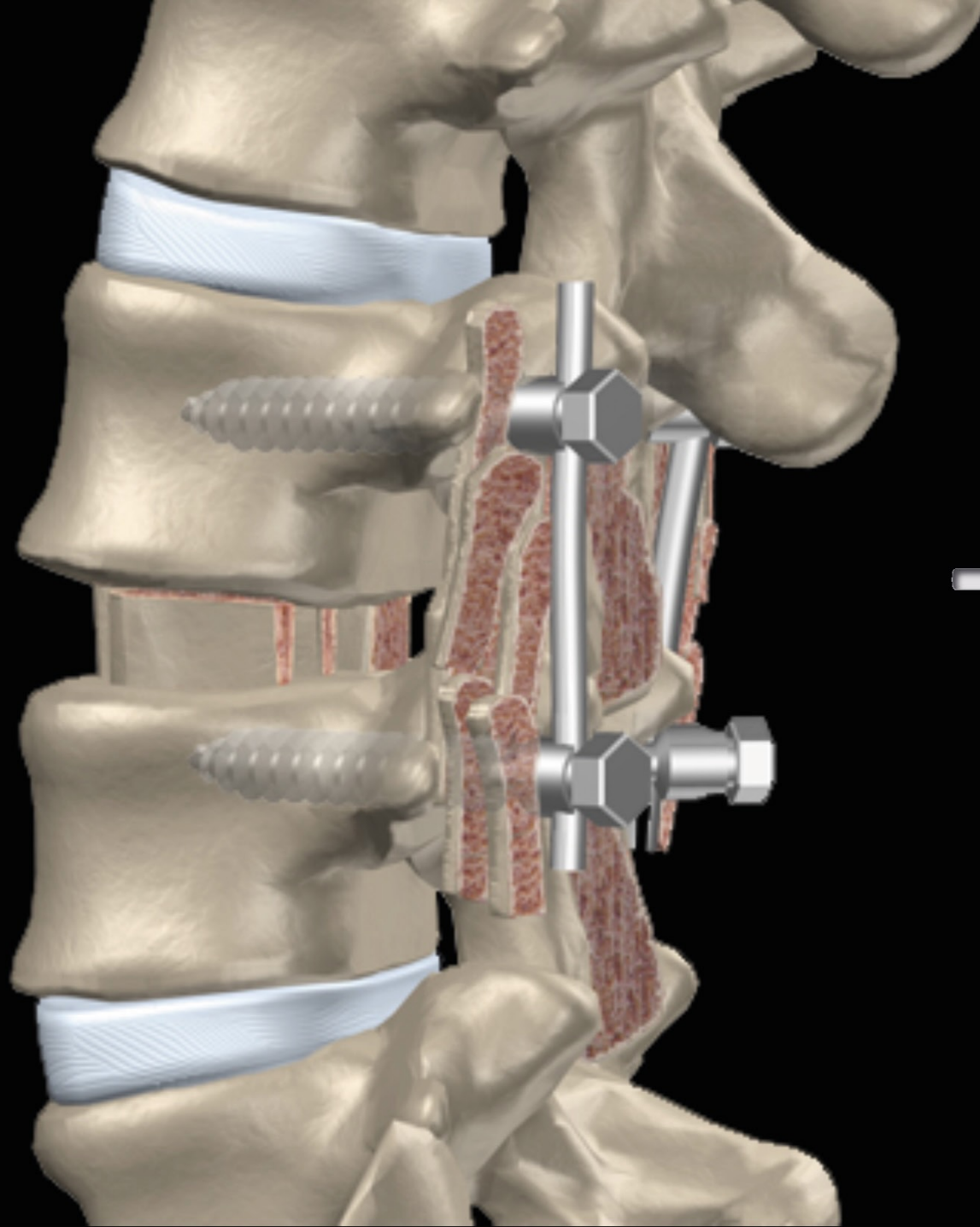
L4/L5-Dese

Transforaminal Lumbar Interbody Fusion

- Pedikelskruer
- Stave
- Diskectomi
- TLIF-Spacer (Opal)
- Knoglestykker evt. transplantat

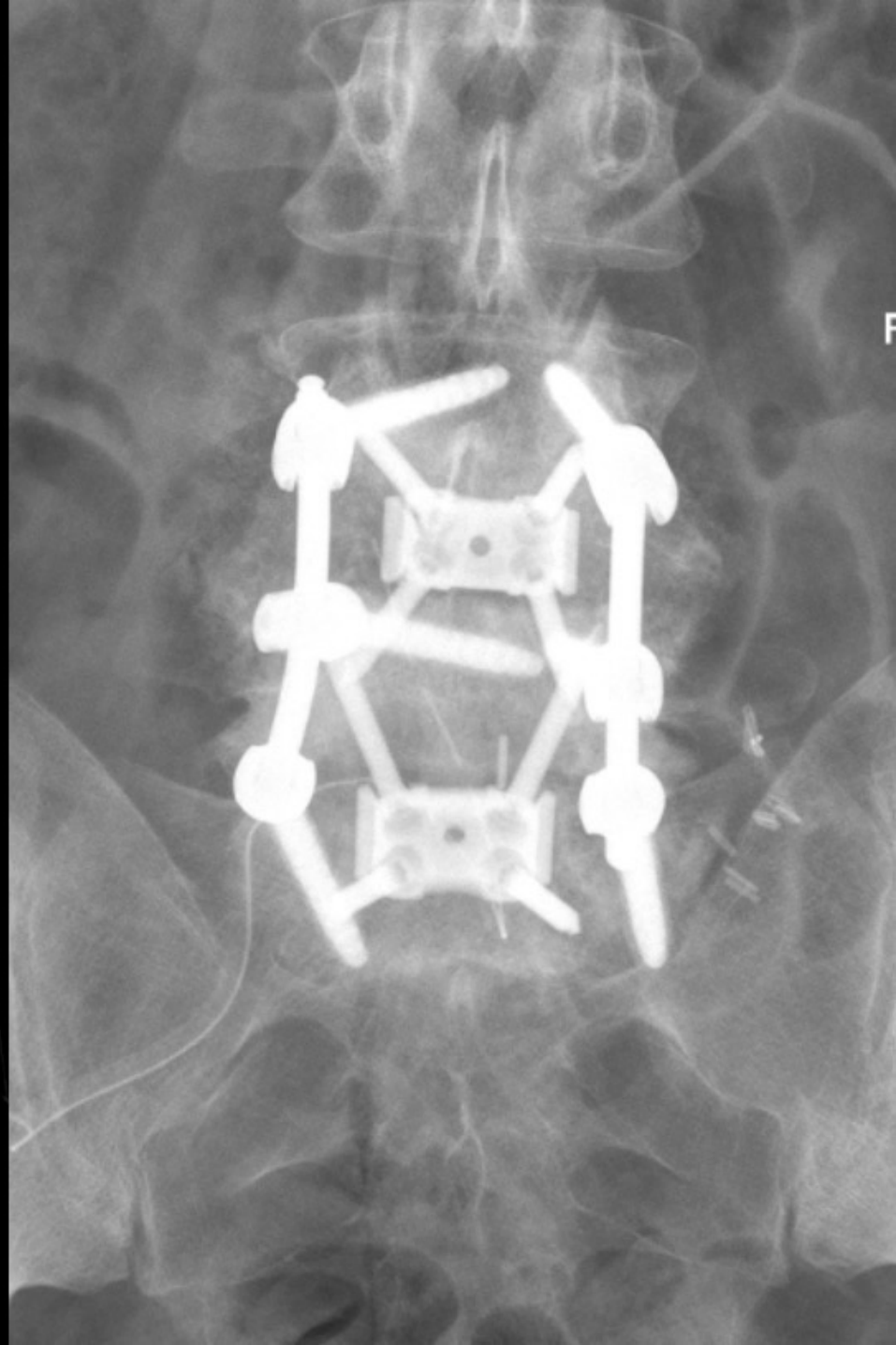
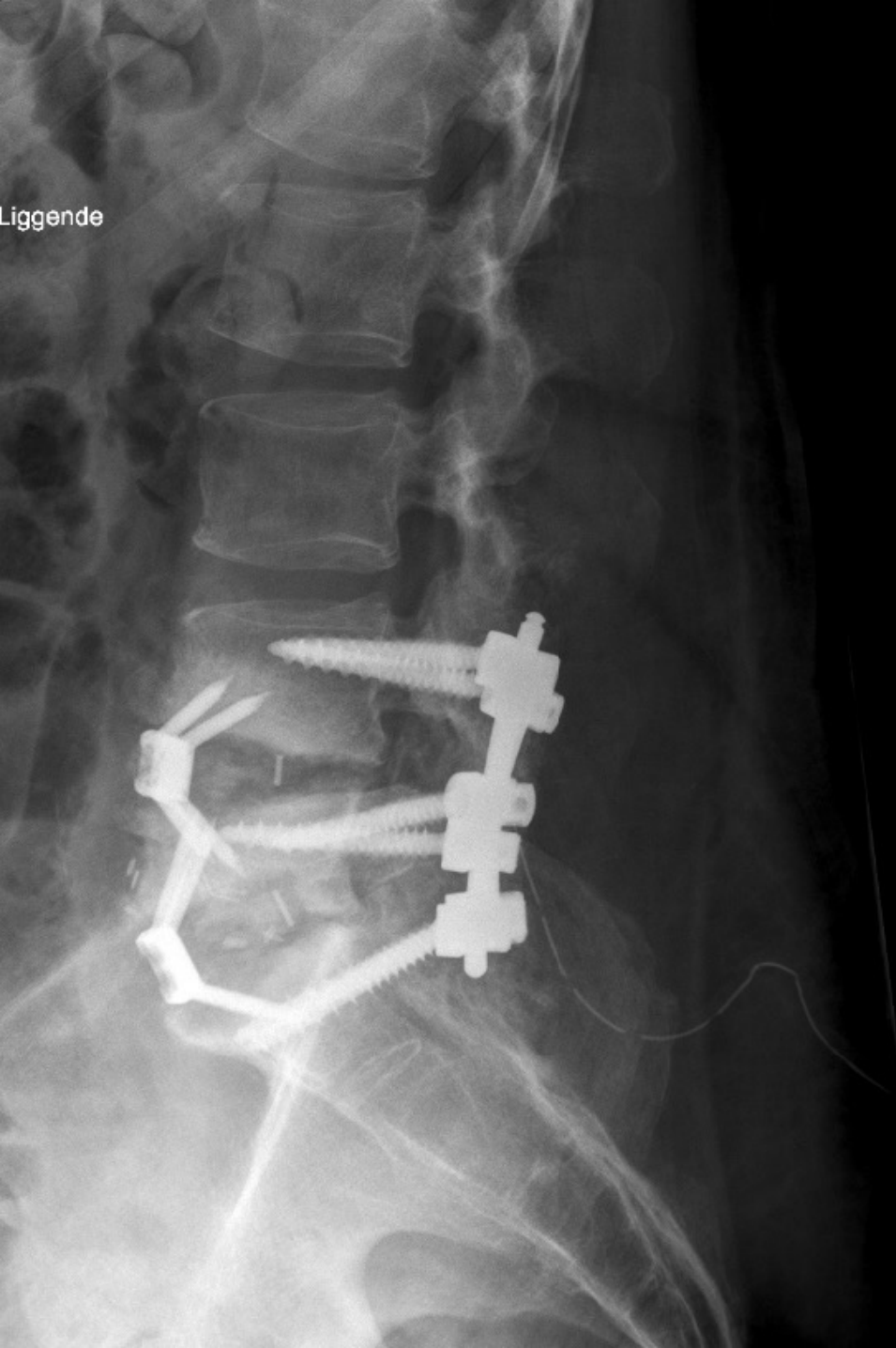


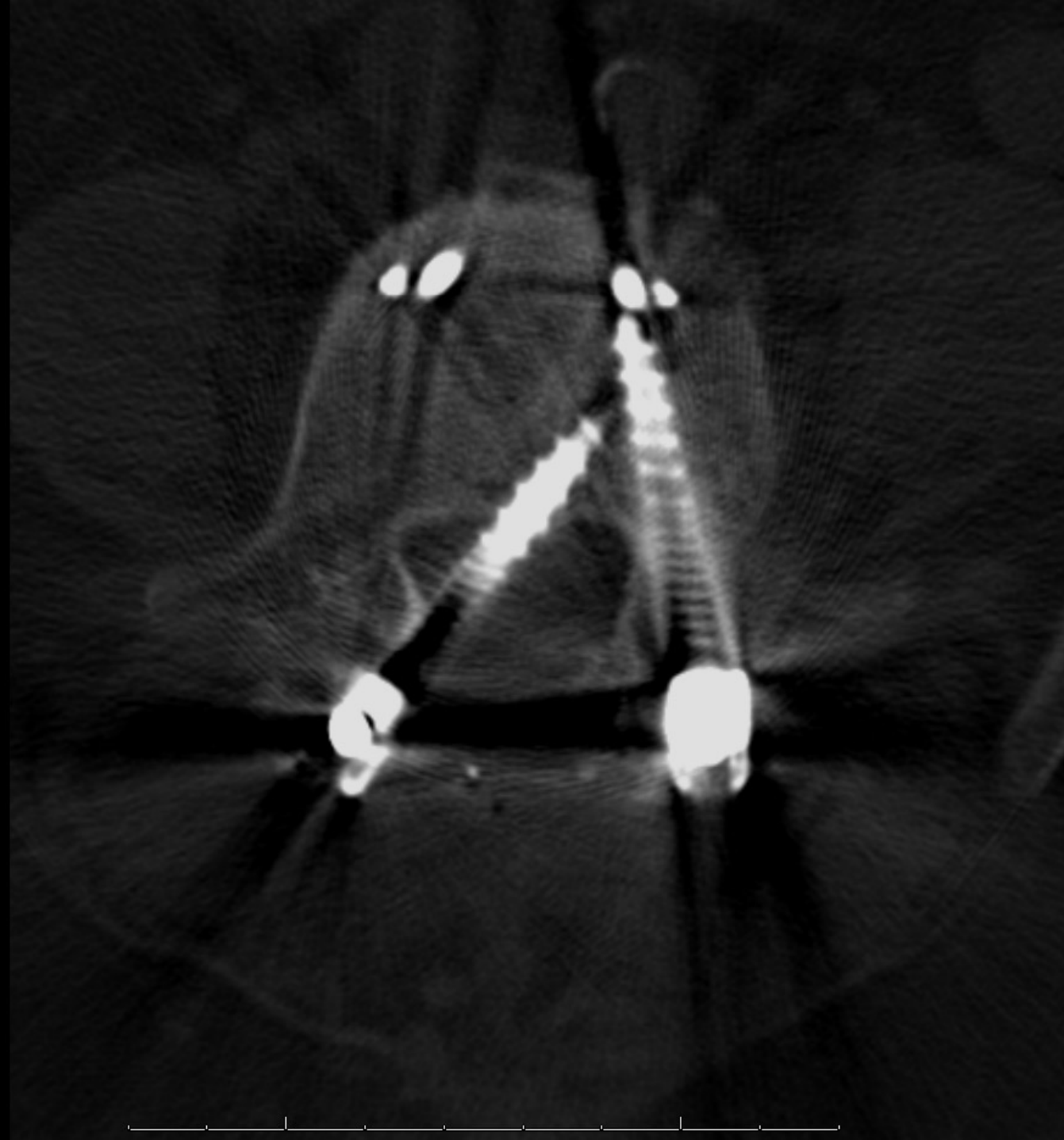




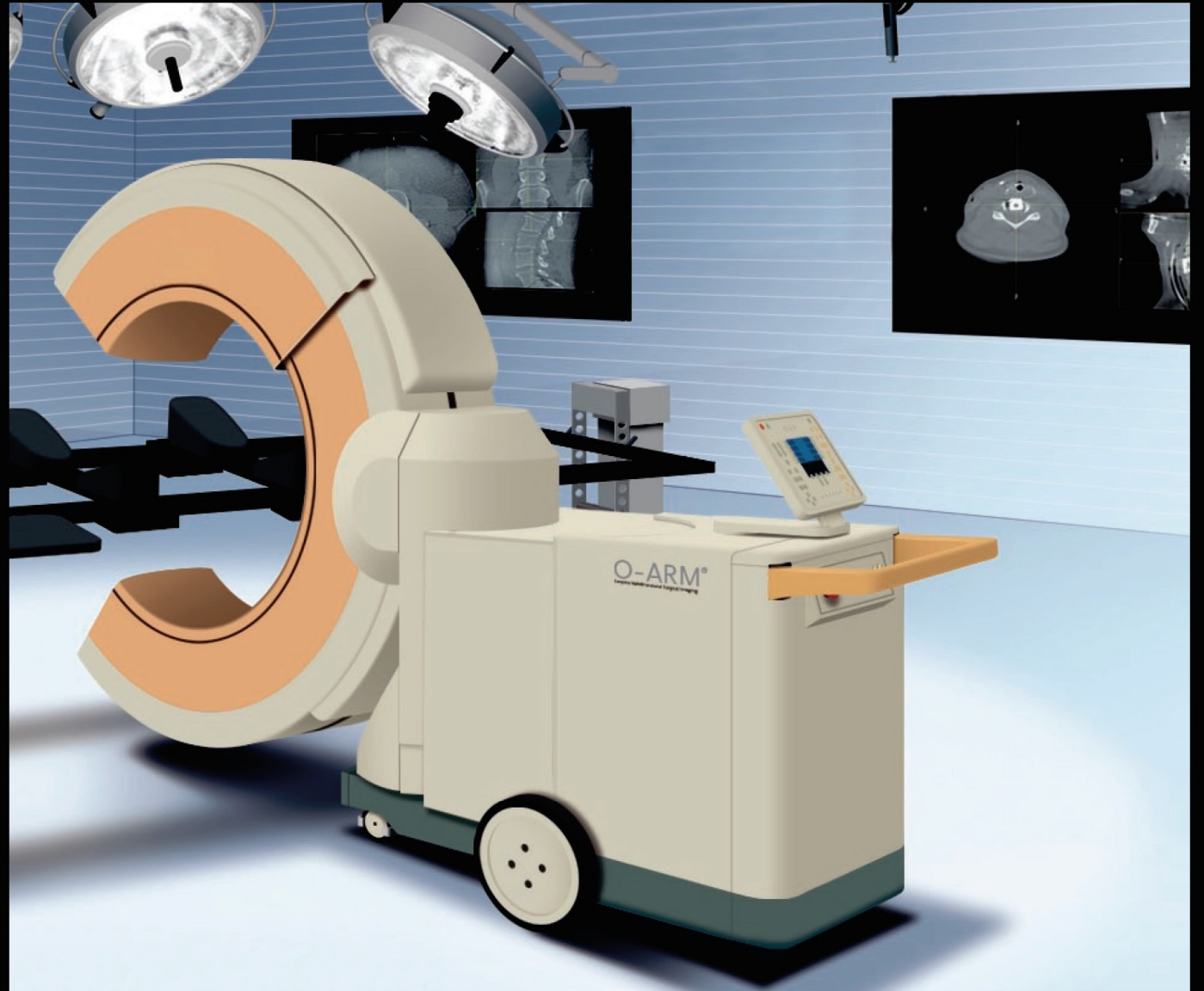
TLIF

Liggende





MEDTRONIC



Cervikal
prolaps &
rodkanalstenose

1

Overvejende
symptomfrit
aldringsfænomen
(40+)

2

Axiale
nakkesmerter
inkl. ømhed af
paraspinale
muskulatur

3

Armsmerter
(cervikal
radikulopati)

4

Cervikal
spondylodisk
myelopati

C-DEGENERATION (SPONDYLOSE)

Biceps
brachii m.

Brachioradialis m.

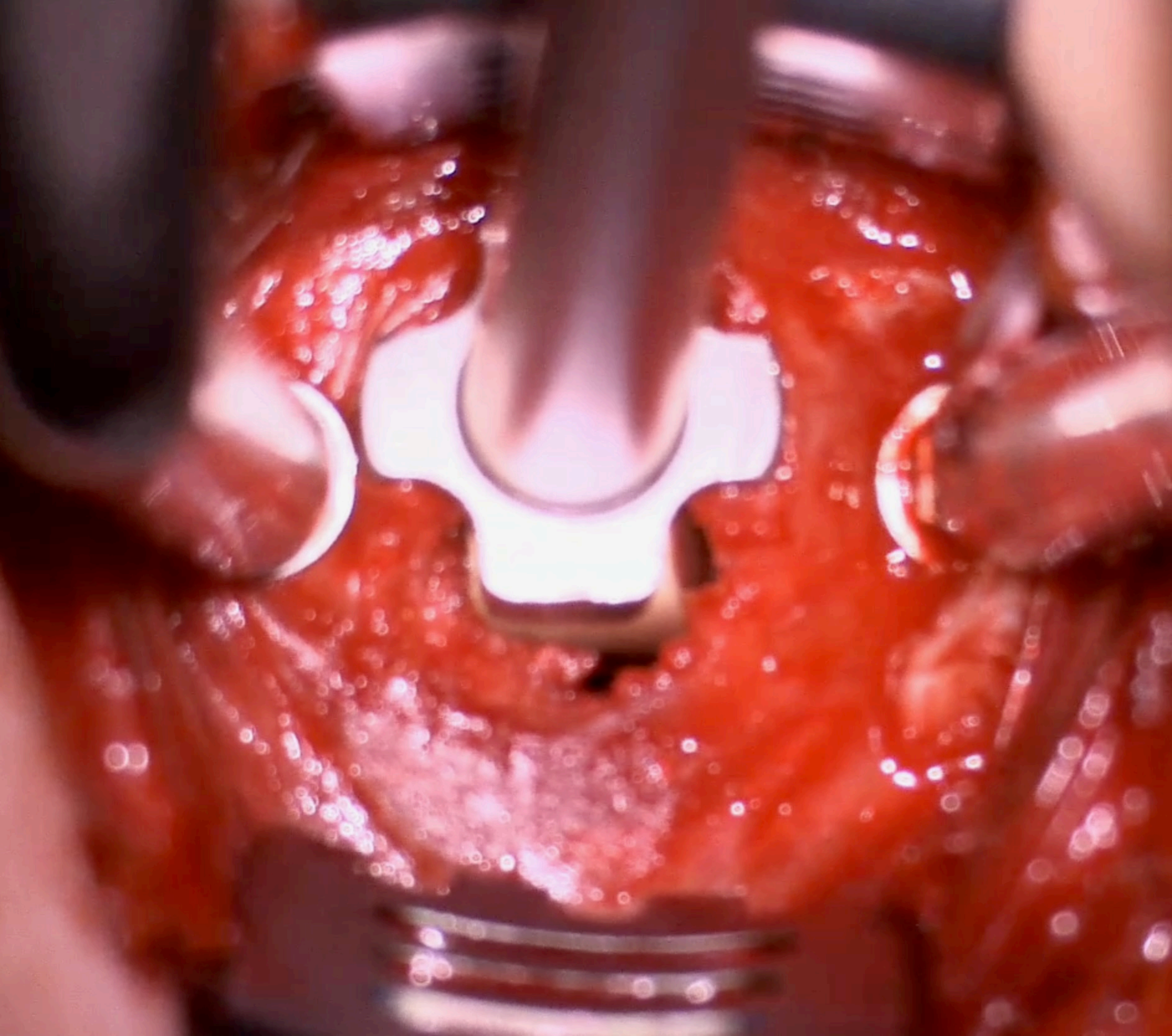
C6

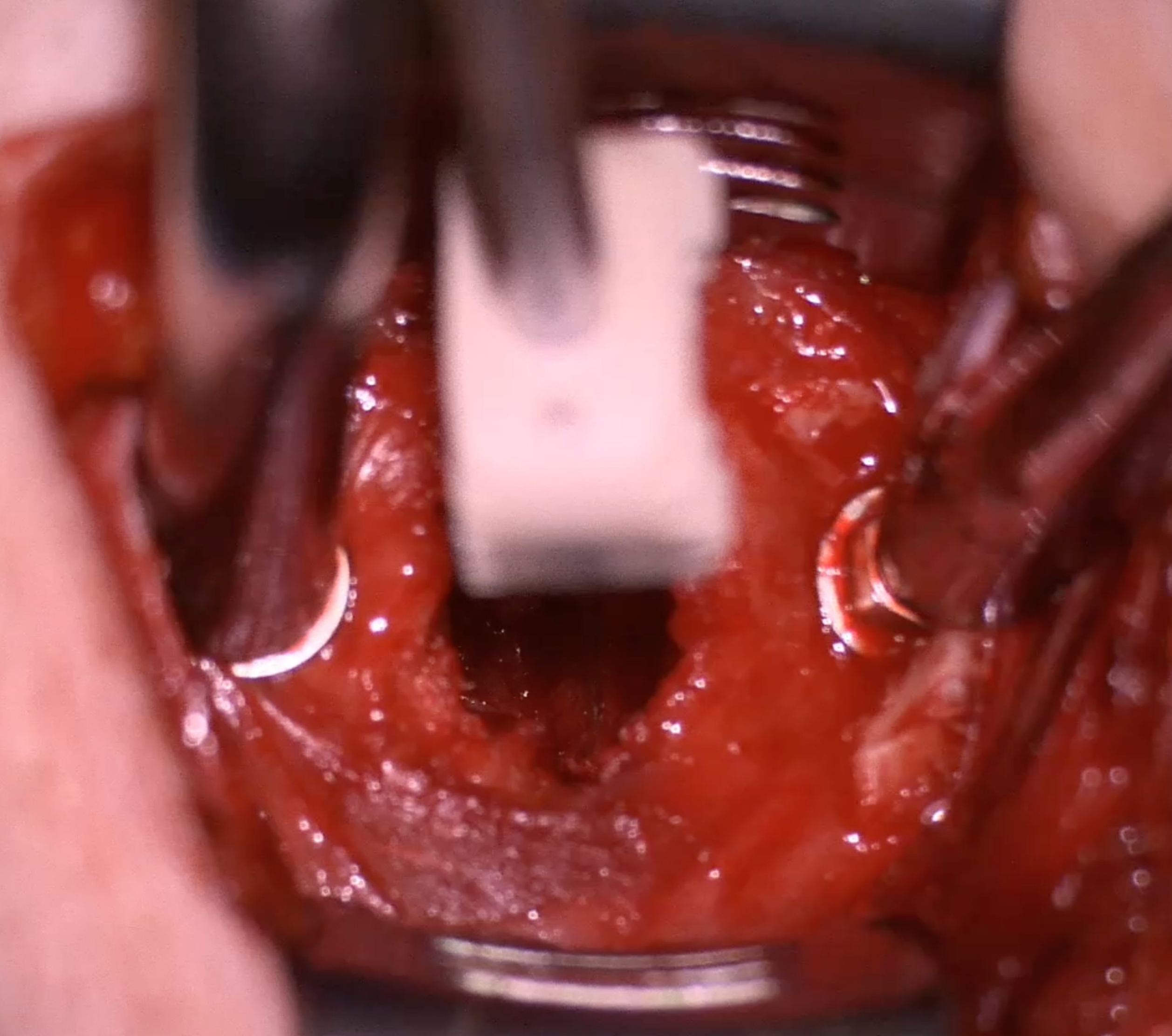
(Dermatome: dark red)

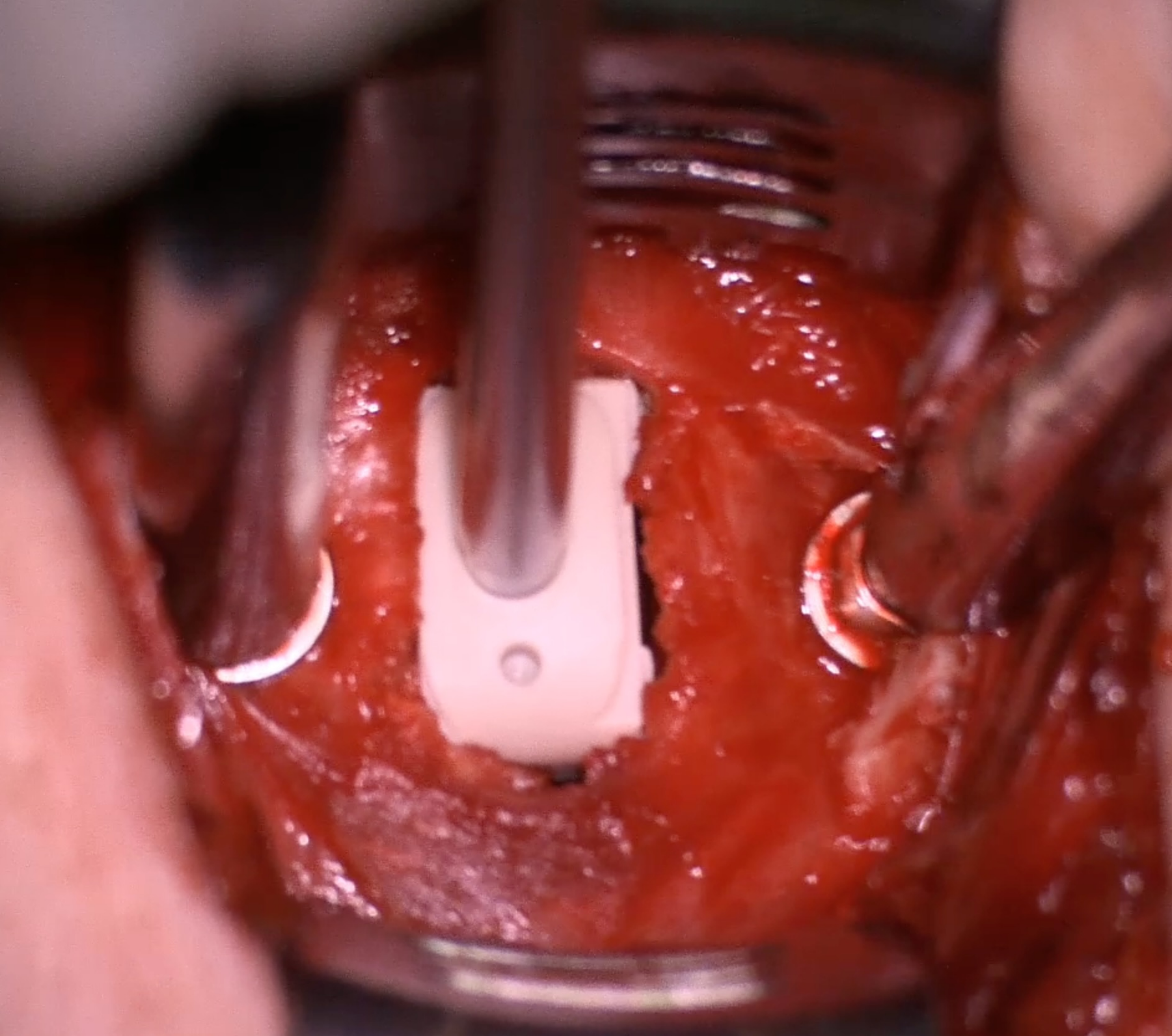
KOMPLIKATIONER

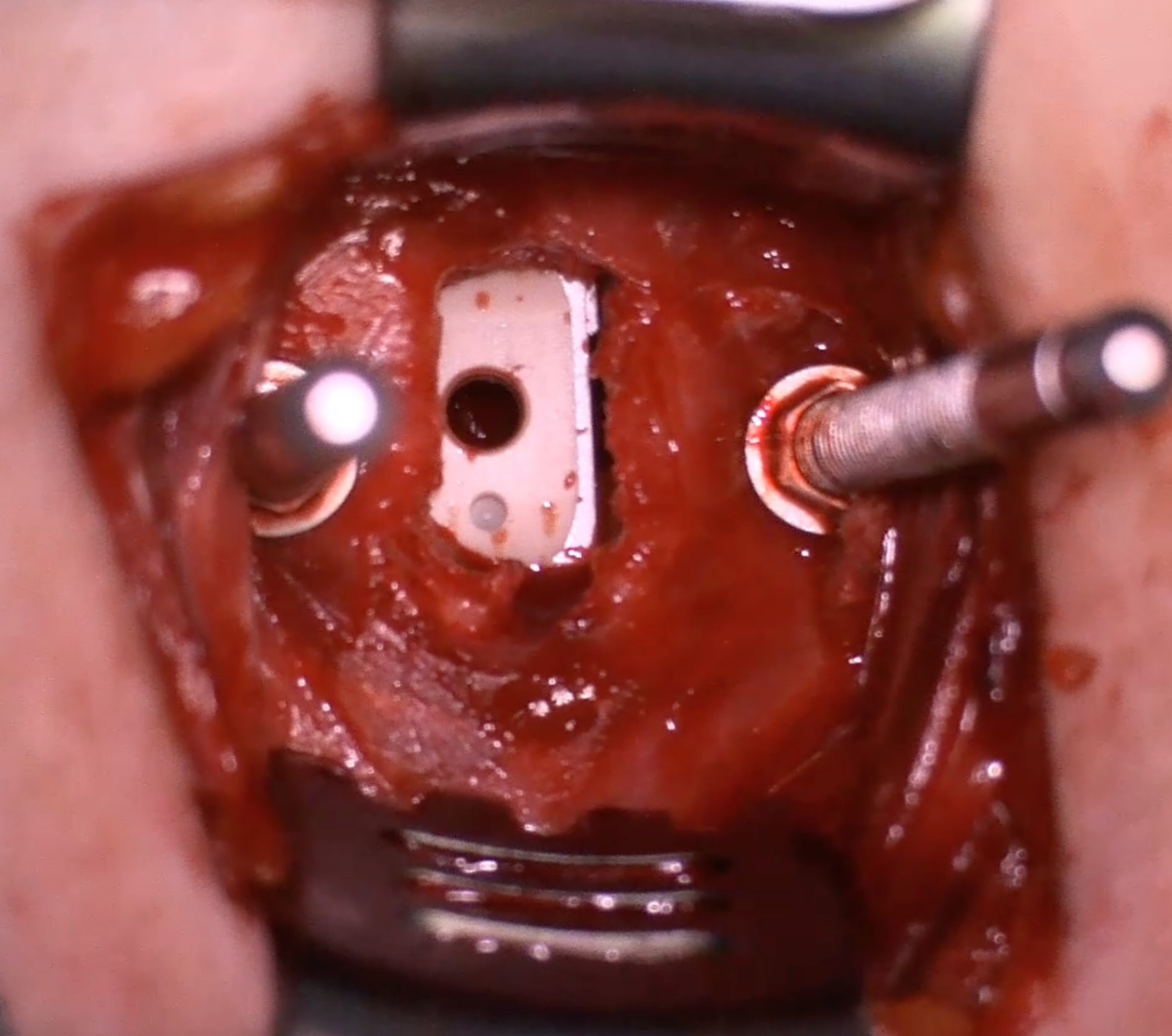
- Globulus
- Hæshed (4%)
- Øsofagus
- Hæmatom
- Myelopati
- Horner









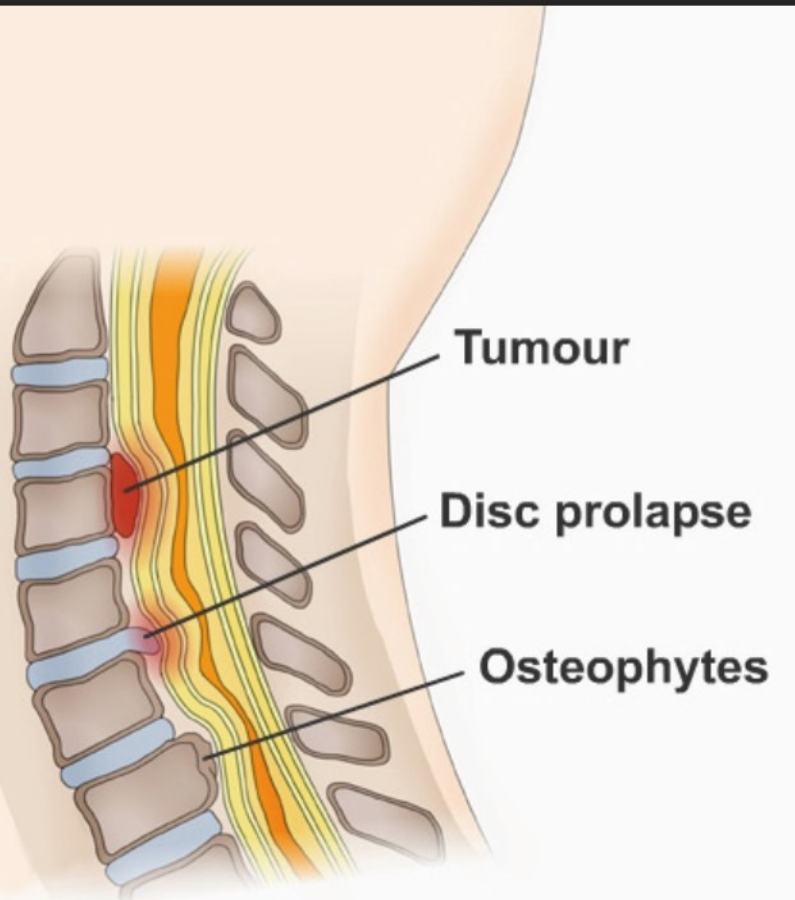


Cervikal
stenose

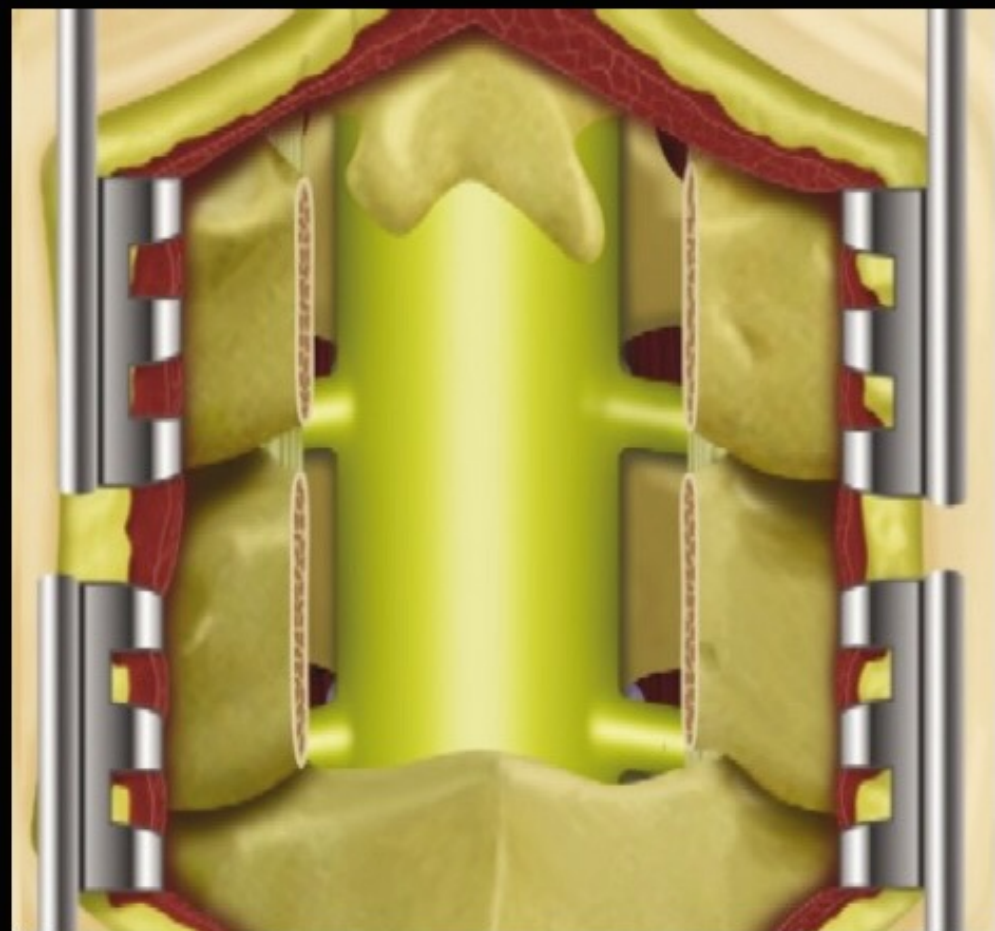
BAG CERV LAM/DESE

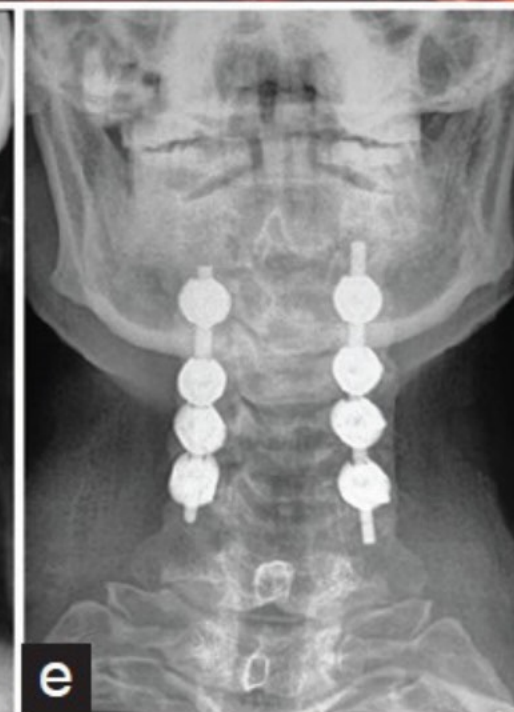
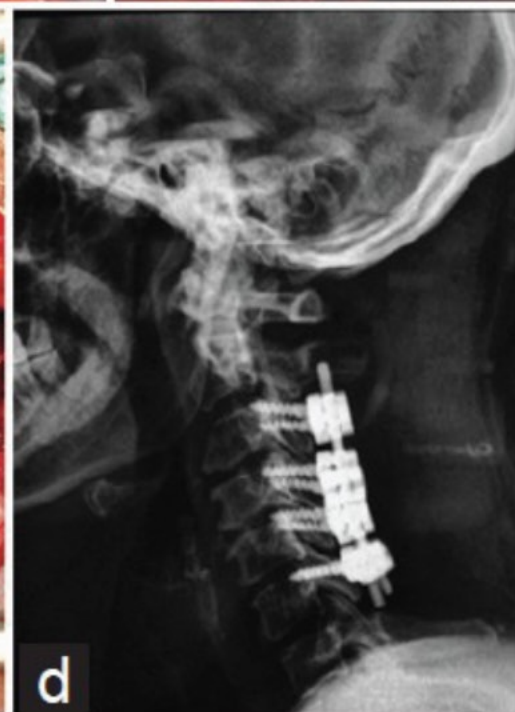
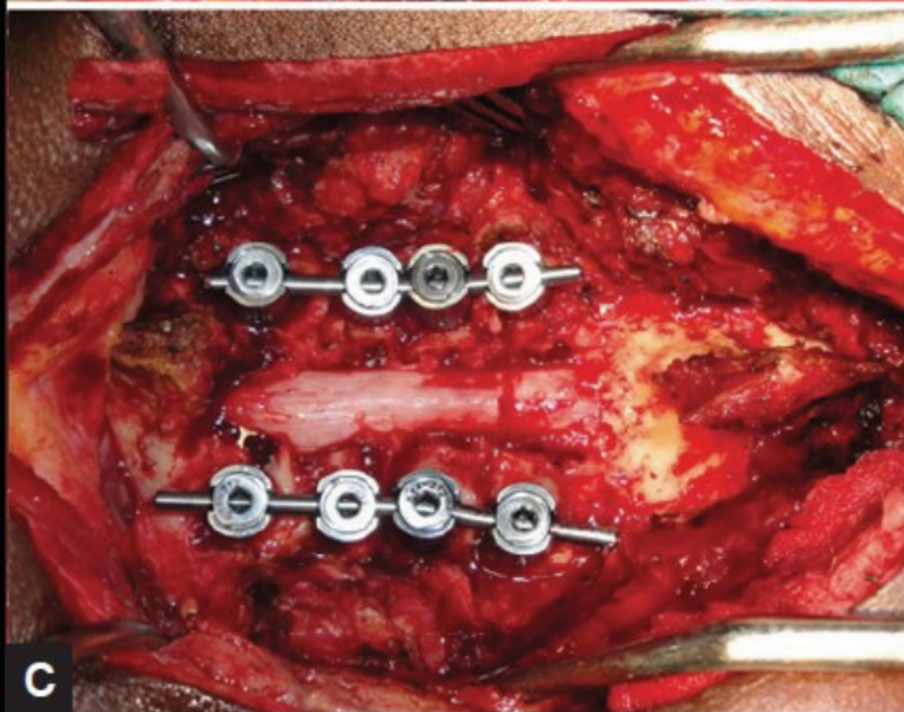
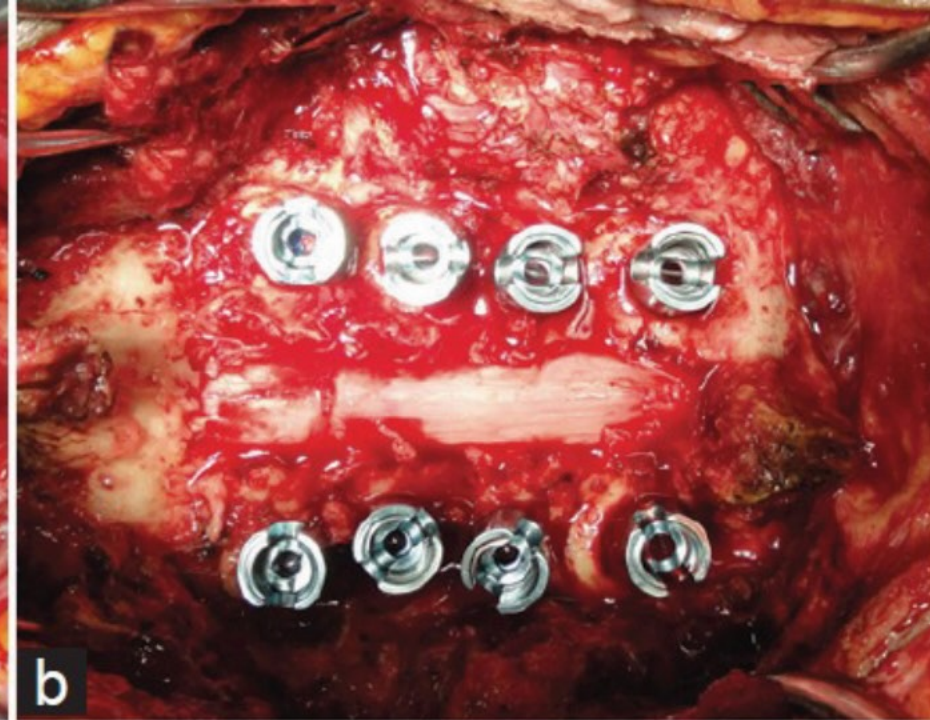
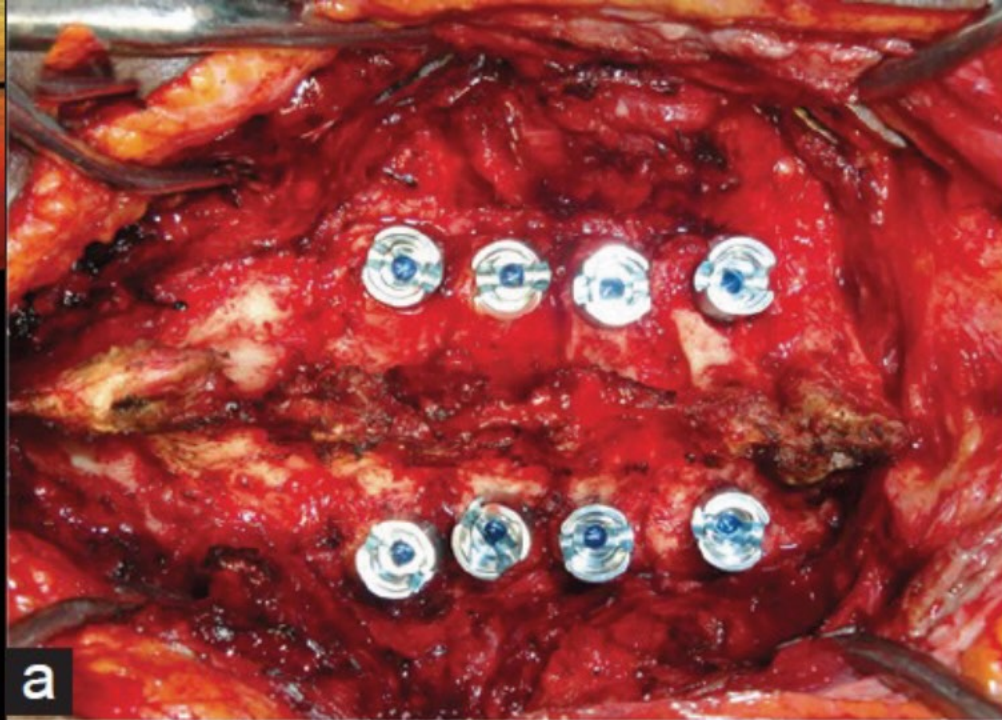
- Myelopati (cerv spinalstenose)
- Instabilitet
- Omfattende frilægning

CERVIKAL MYELOPATI



- Clumsy- numb hands, problemer med finmotorikken
- Gang- og balanceproblemer: faldtendens, usikker og bredsporet gang
- Tetra- eller paraparese
- Hyperrefleksi & ankelklonus
- Babinski & Hoffman refleks
- L'hermittes tegn
- Grip-and-release test < 20 pr. 10 sekunder
- Evt. maskering af de klassiske 1. neuronstegn ved neuropati eller LSS



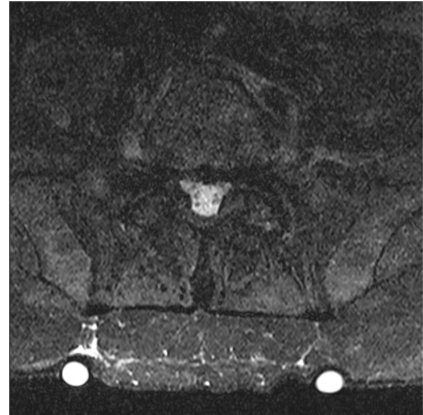
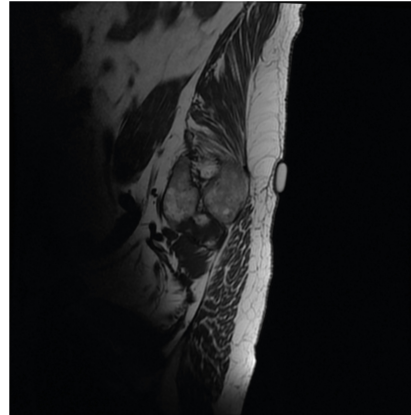
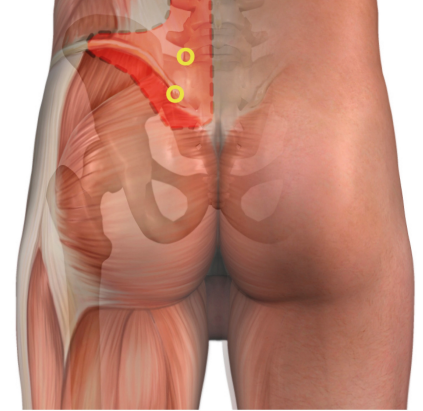
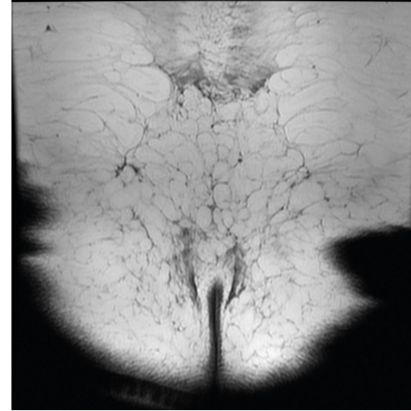
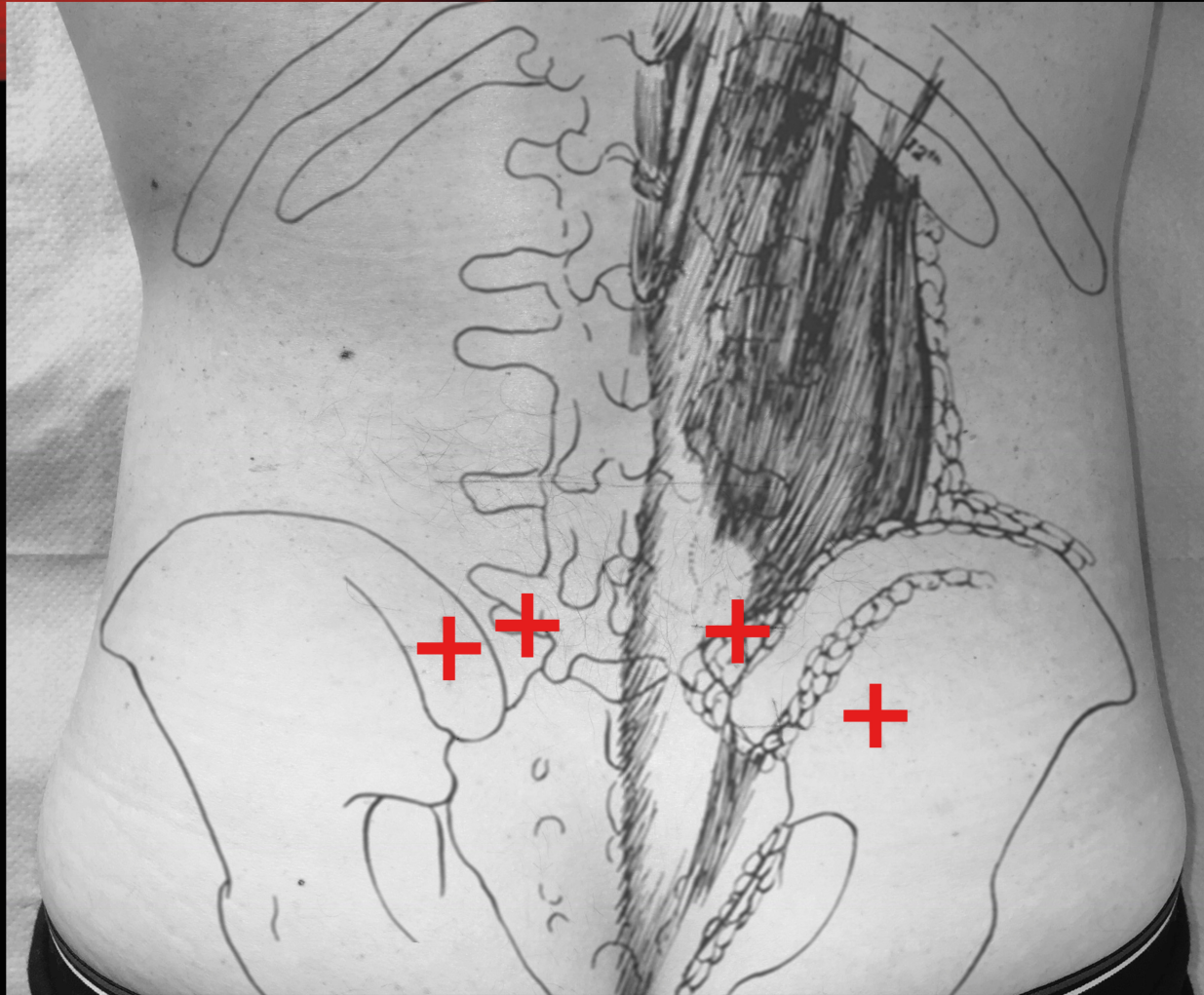


Thorakal
stenose



Rygmus

RYGMUS



Biopsy of Nodules

*Cluneal
Nerves*

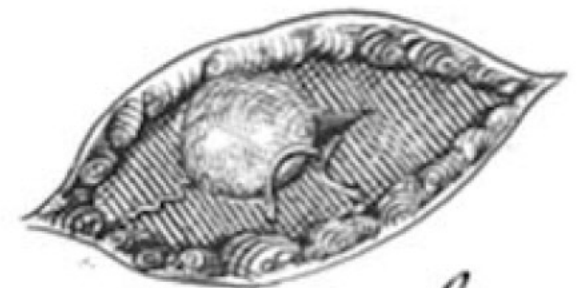
*Edematous Fatty
Lobule*



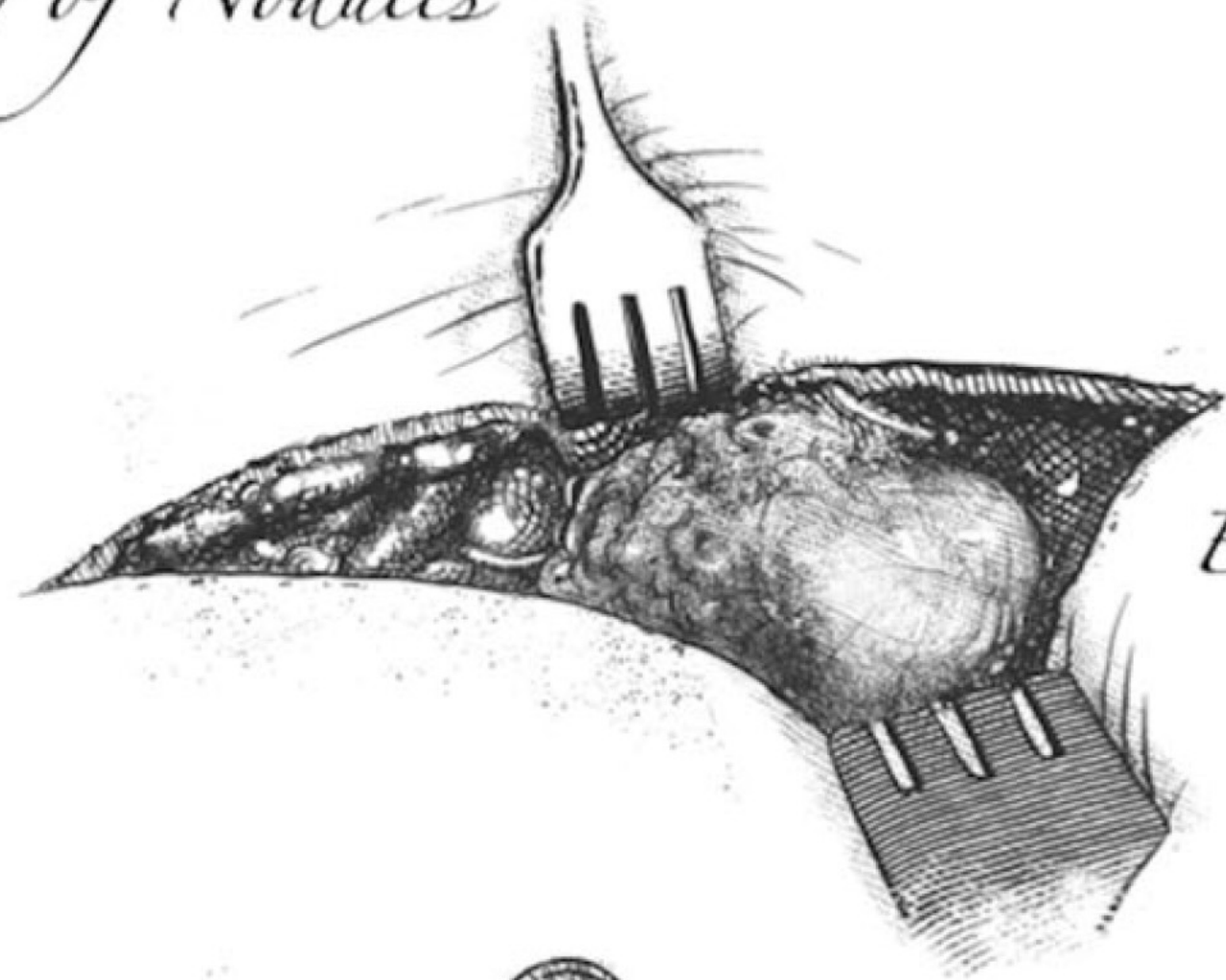
*Non-Pedunculated
Hernia*

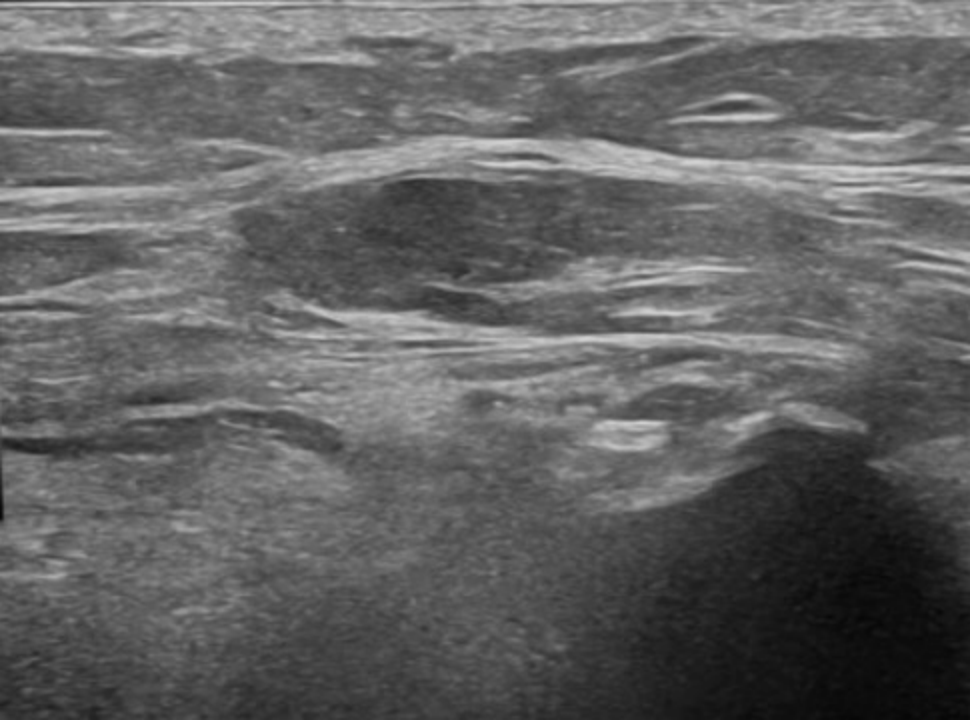


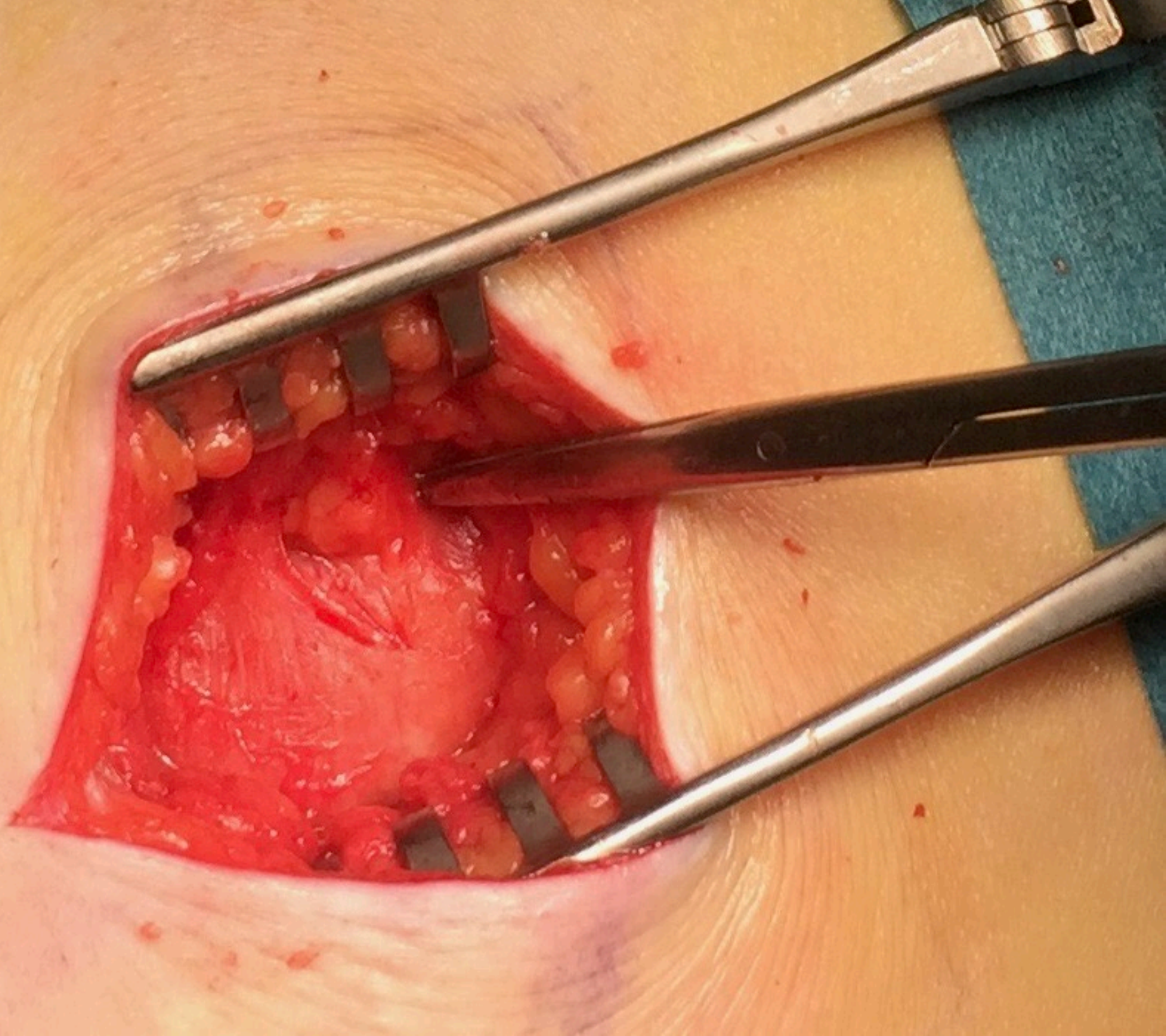
*Pedunculated
Hernia*



*Foraminal
Hernia*



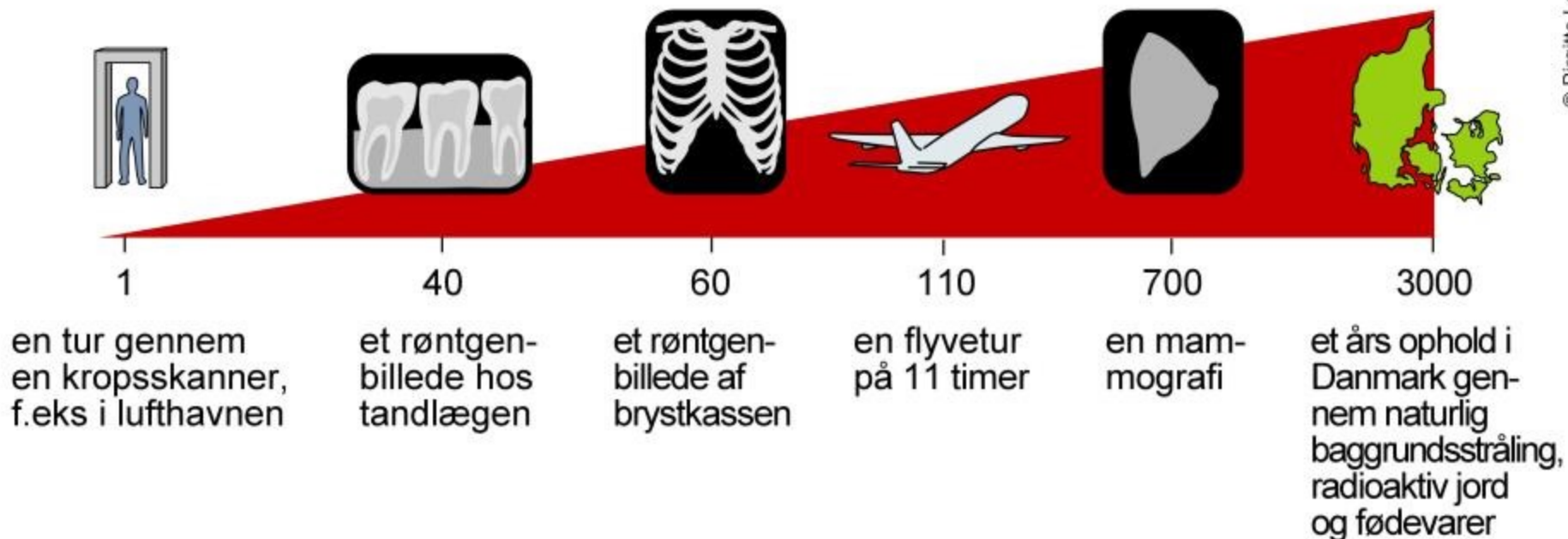






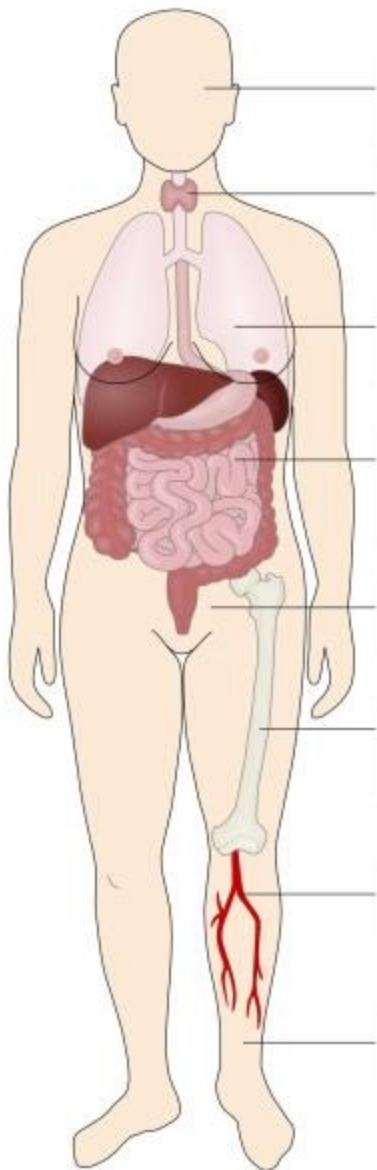
Røntgenstråling

Så meget stråling giver



Strålingsdoserne er her angivet i mikrosievert (μSv), som er en ekstremt lille dosis. Man skal udsættes for stråledoser på omkring 1.000.000 μSv (1.000 millisievert), før det udgør en akut sundhedsmæssig risiko.

Følgelvirkninger af stråling:



Øjne: Grå stær

Skjoldbruskkirtel: Kræft og andre sygdomme i skjoldbruskkirtlen

Lunger, bryster: Kræft

Mave, tarm: Beskadigelse af mave-tarmkanalens overflade kan fx give kvalme, diare og blodig opkast

Kønsorganer (testikler/æggestokke):
Ændret arvemasse og sterilitet

Knoglemarv: Leukæmi eller aplastisk anæmi (udtalt mangel på blodlegemer og blodplader i blodet)

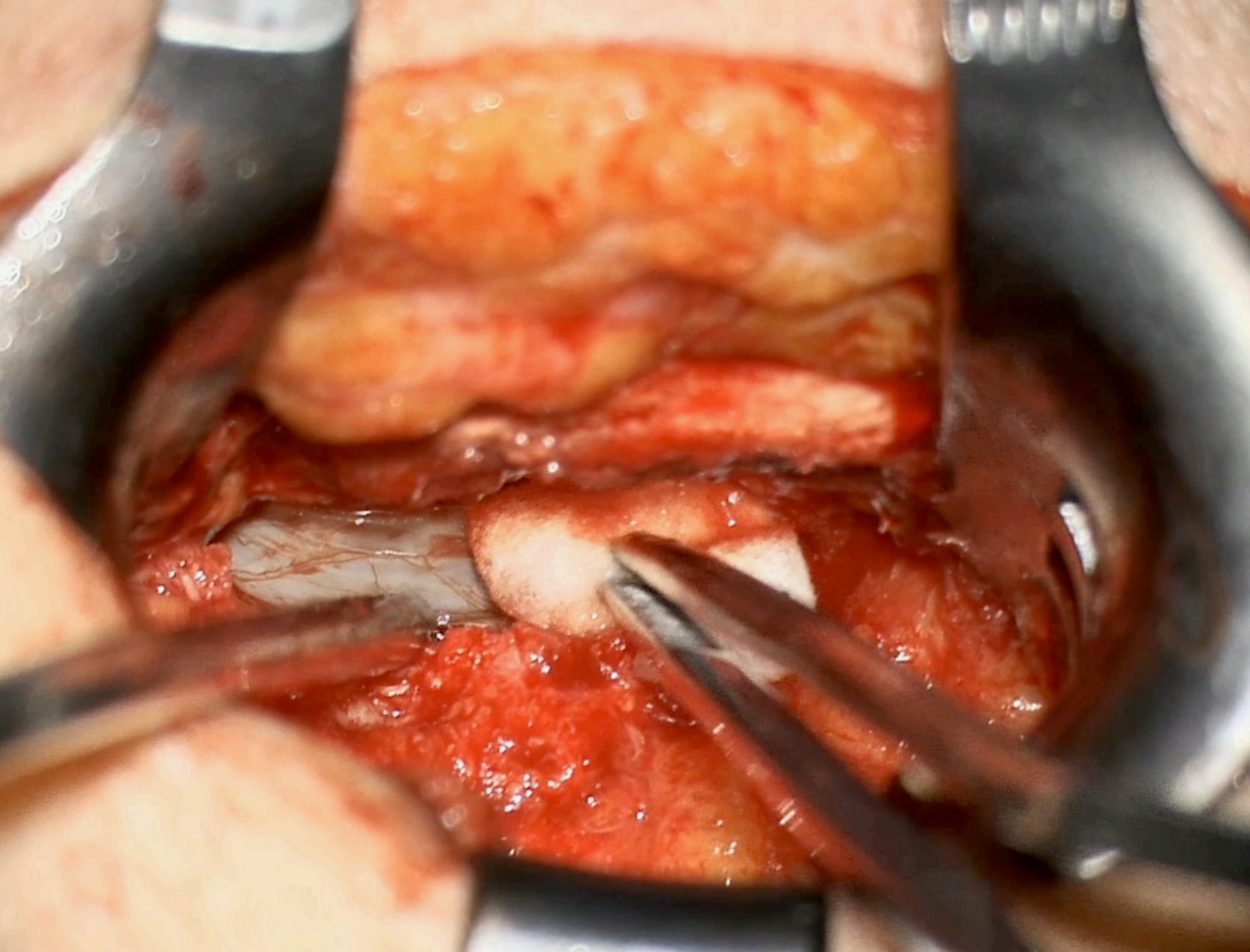
Blod: Øget modtagelighed for infektioner

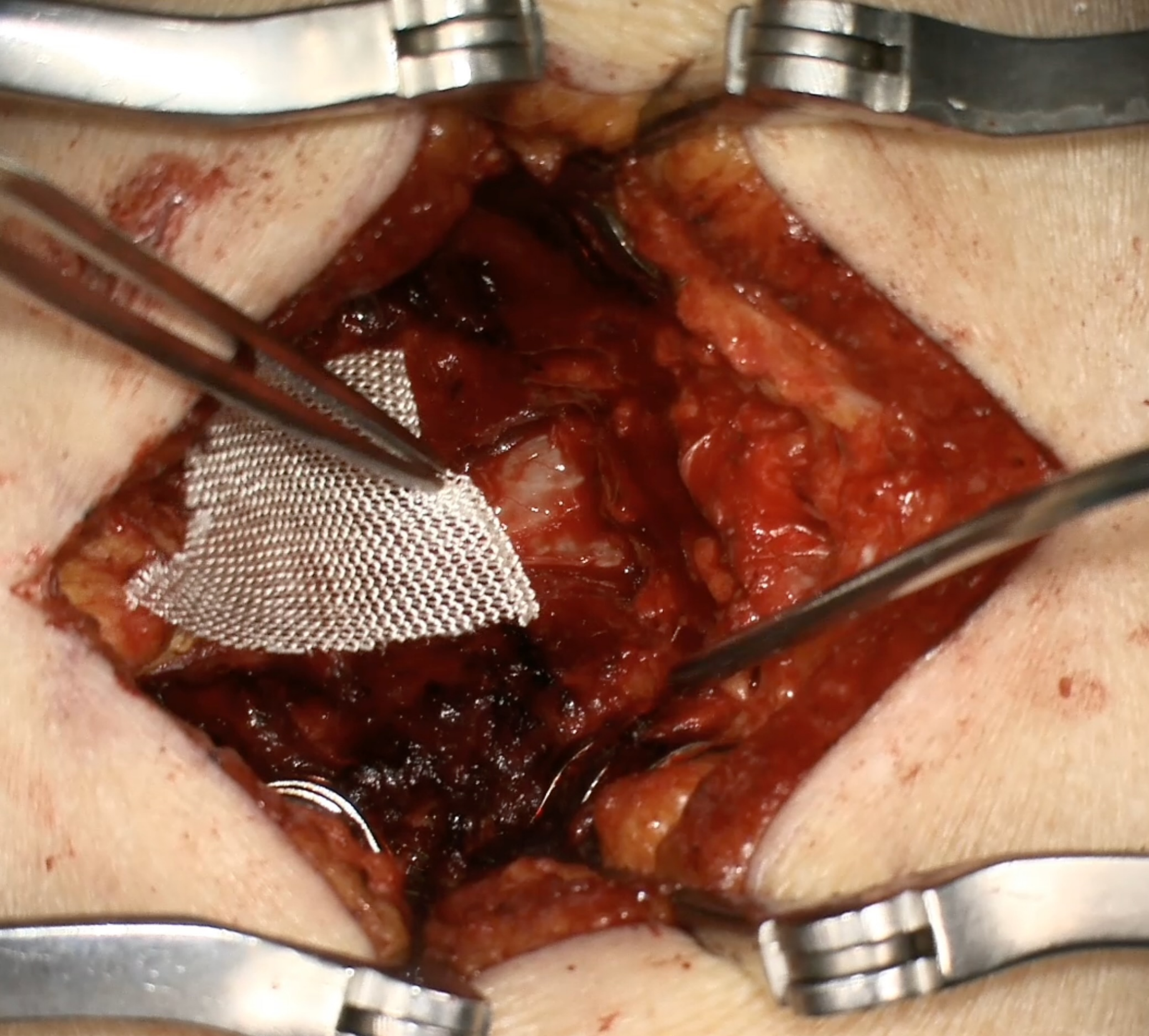
Hud: Hudkræft

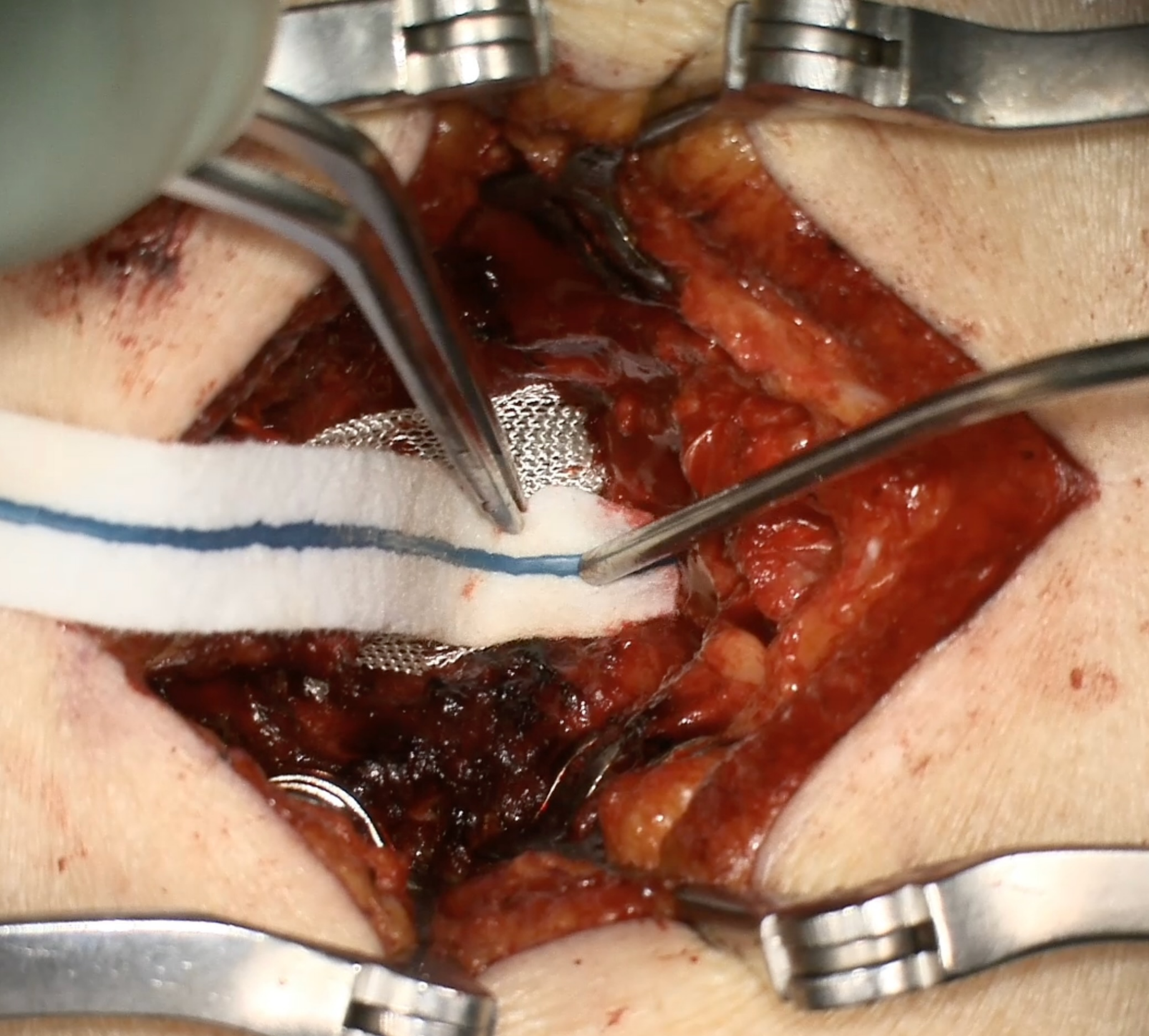
Komplikationer

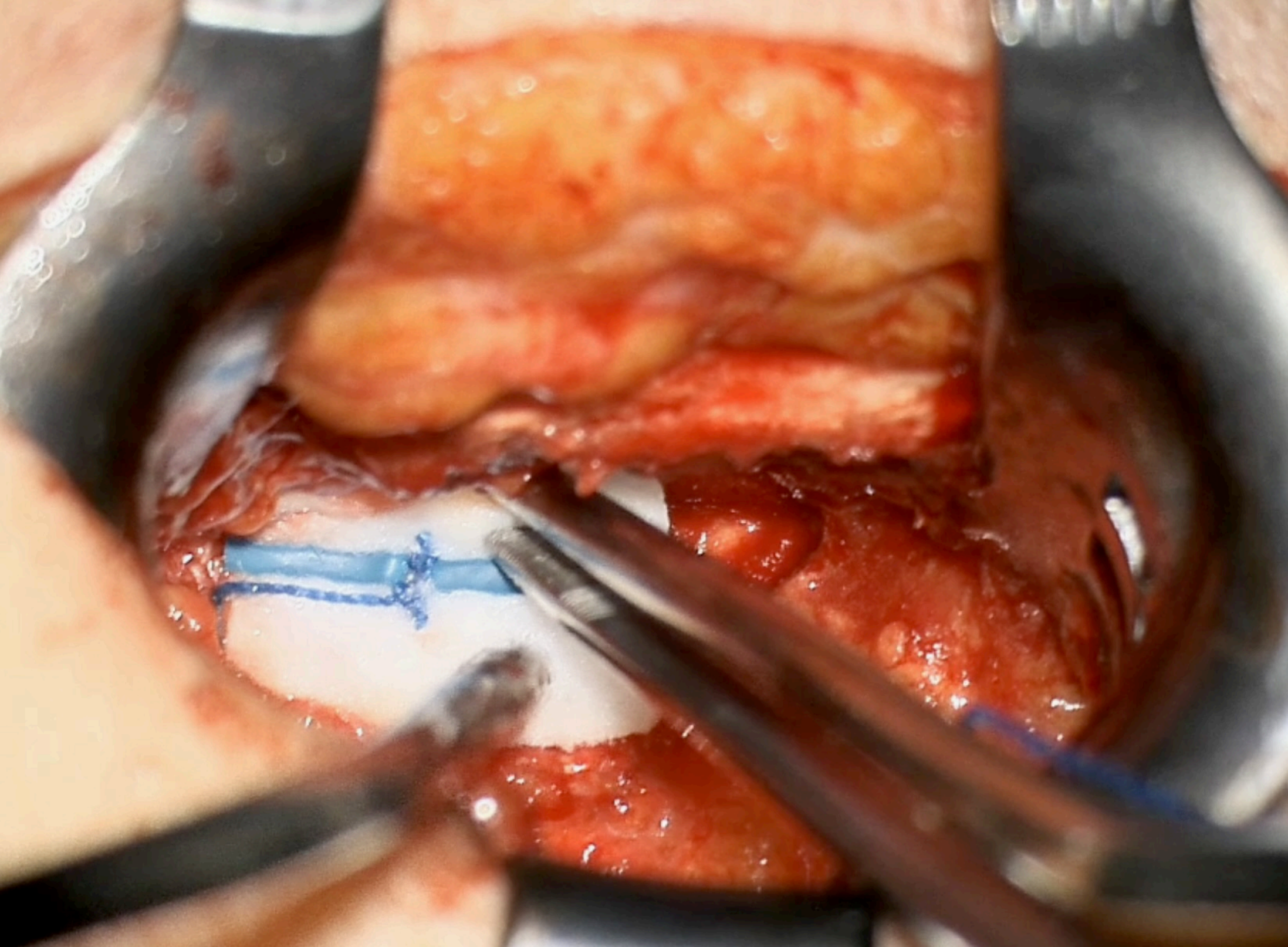
Indgrebstype	Anterior adgang	Posterior adgang (lam.)
Cervikalt niveau:	Vejrtrækningsproblemer (ACIF)	Tværsnitssyndromet
Lumbalt niveau:	Shock (ALIF)	Cauda Equina Syndromet 

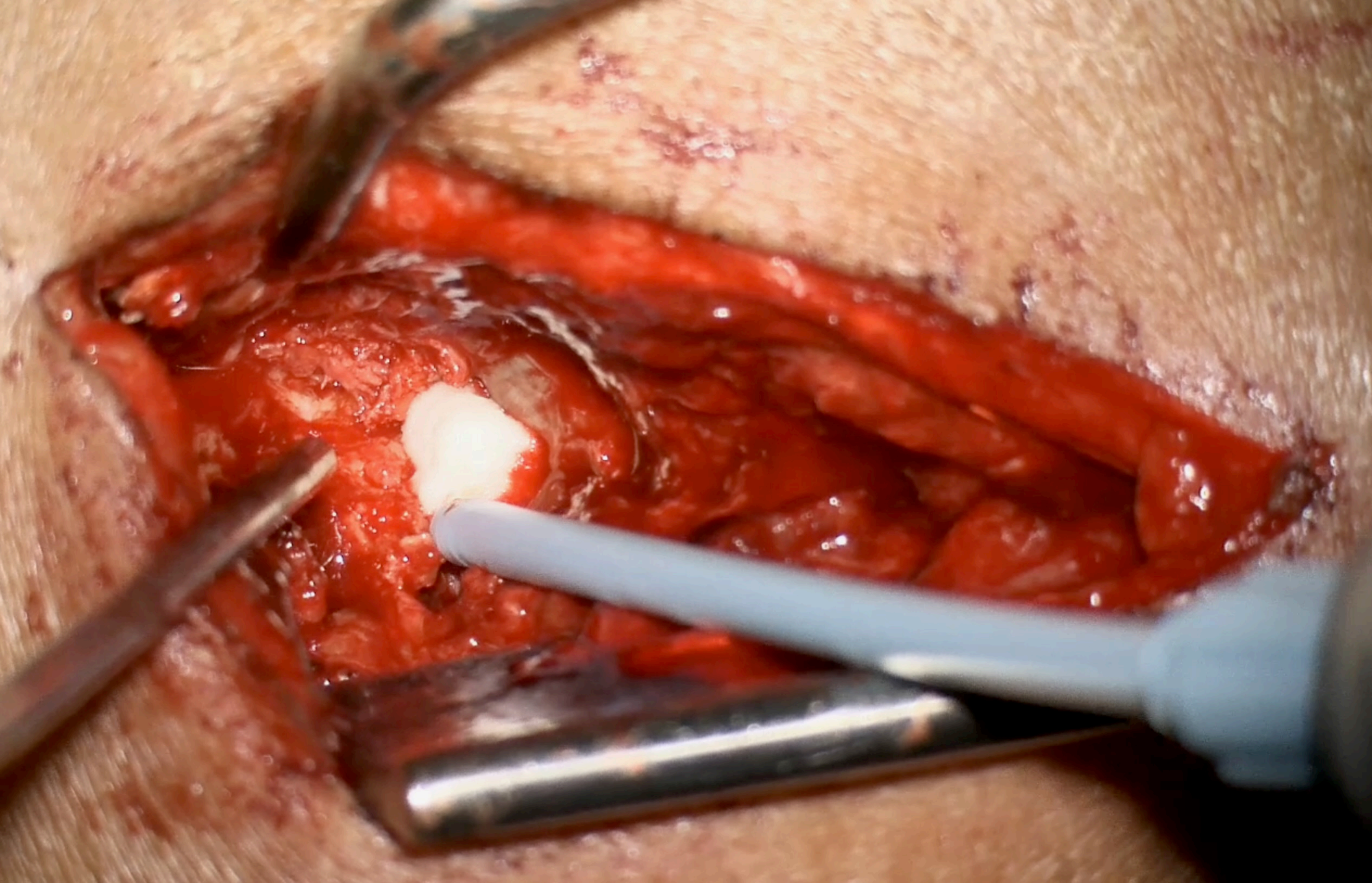
Blødning

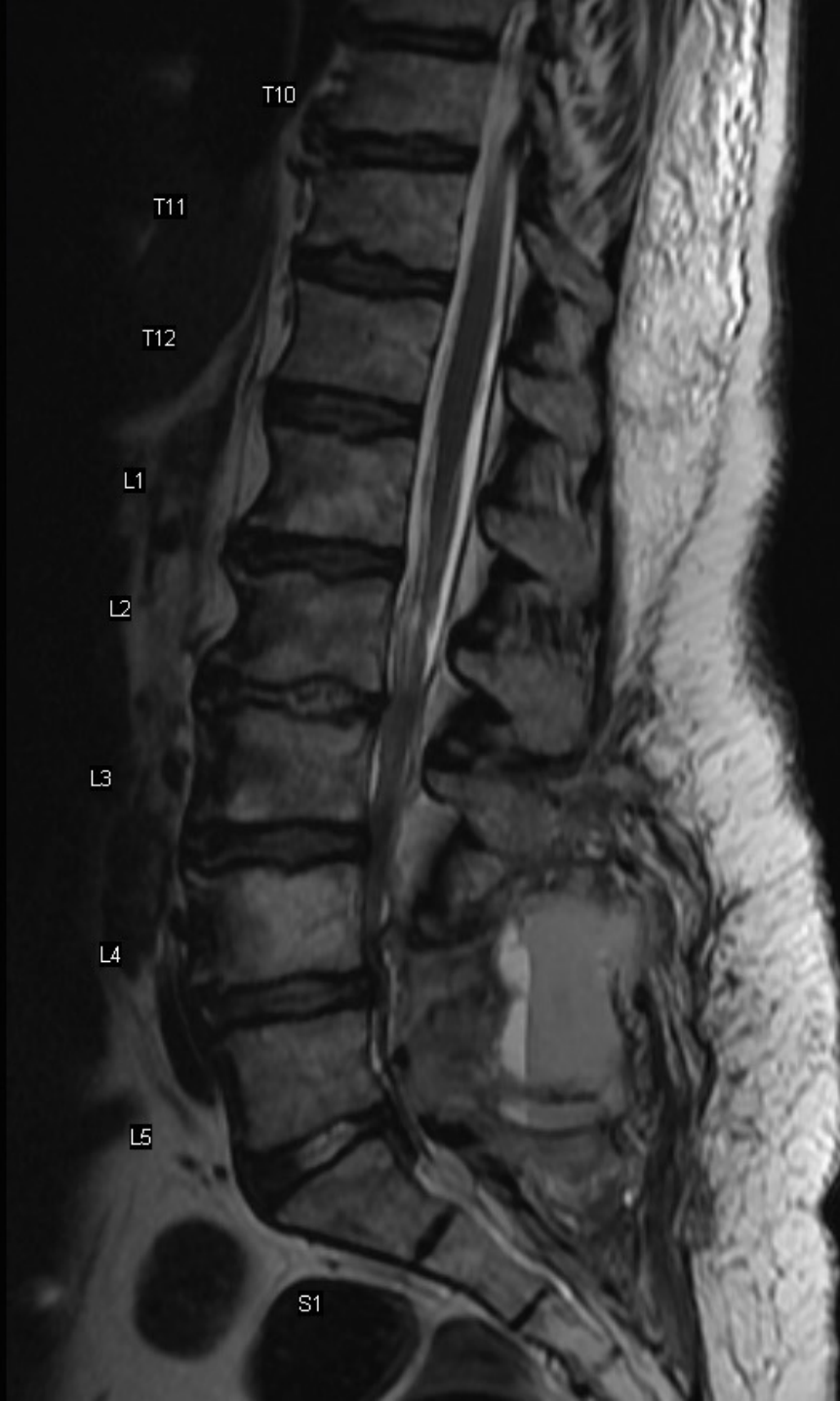










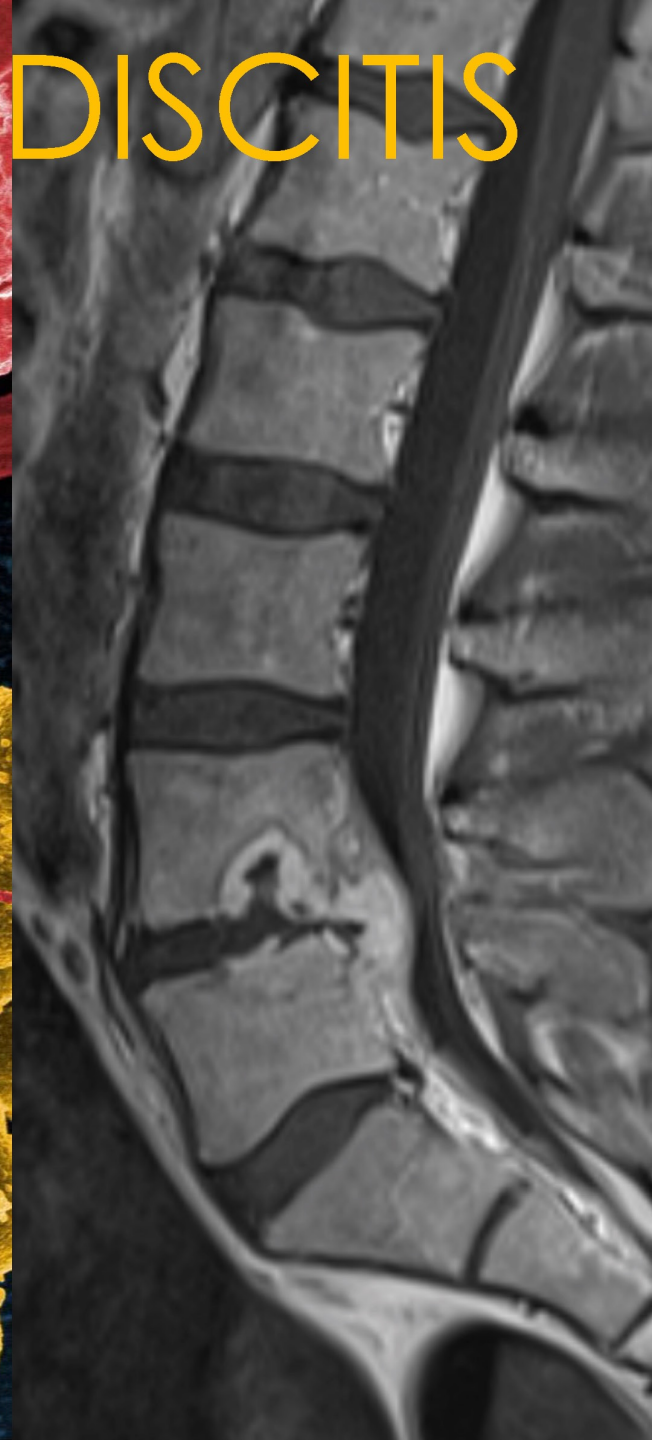


Sårdræen?



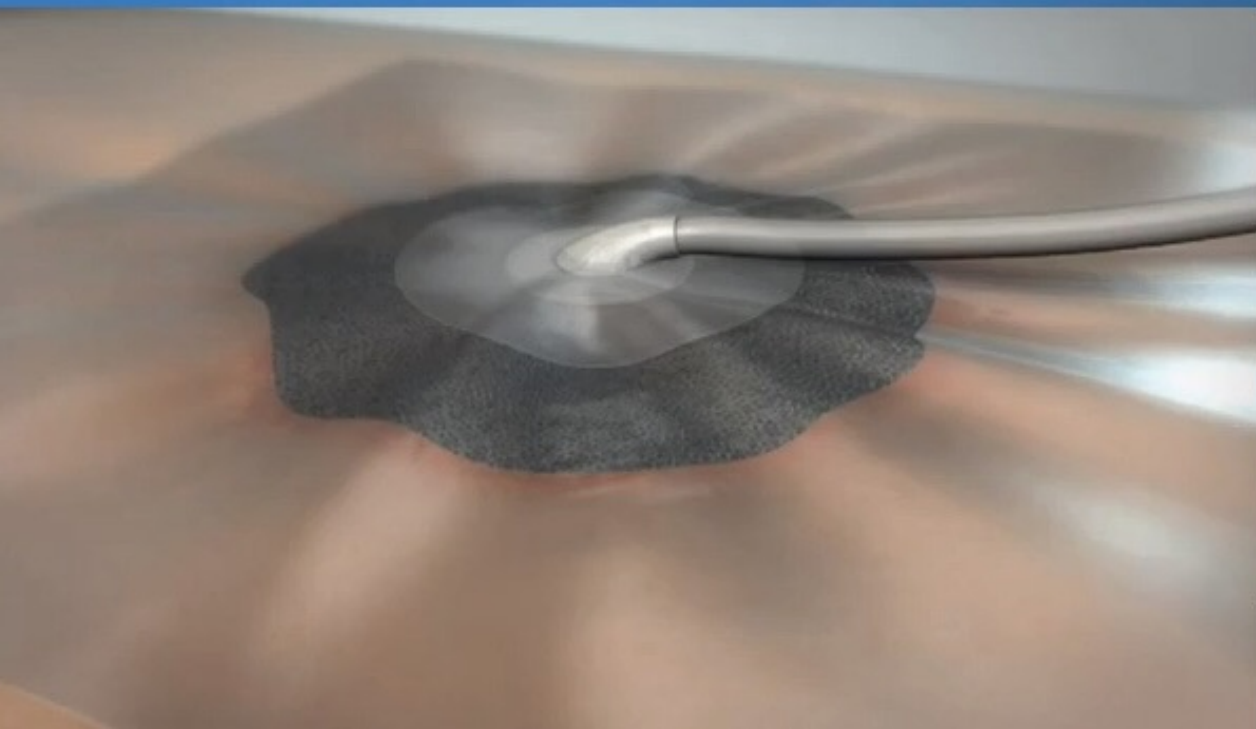
Infektion

SPONDYLODISCITIS

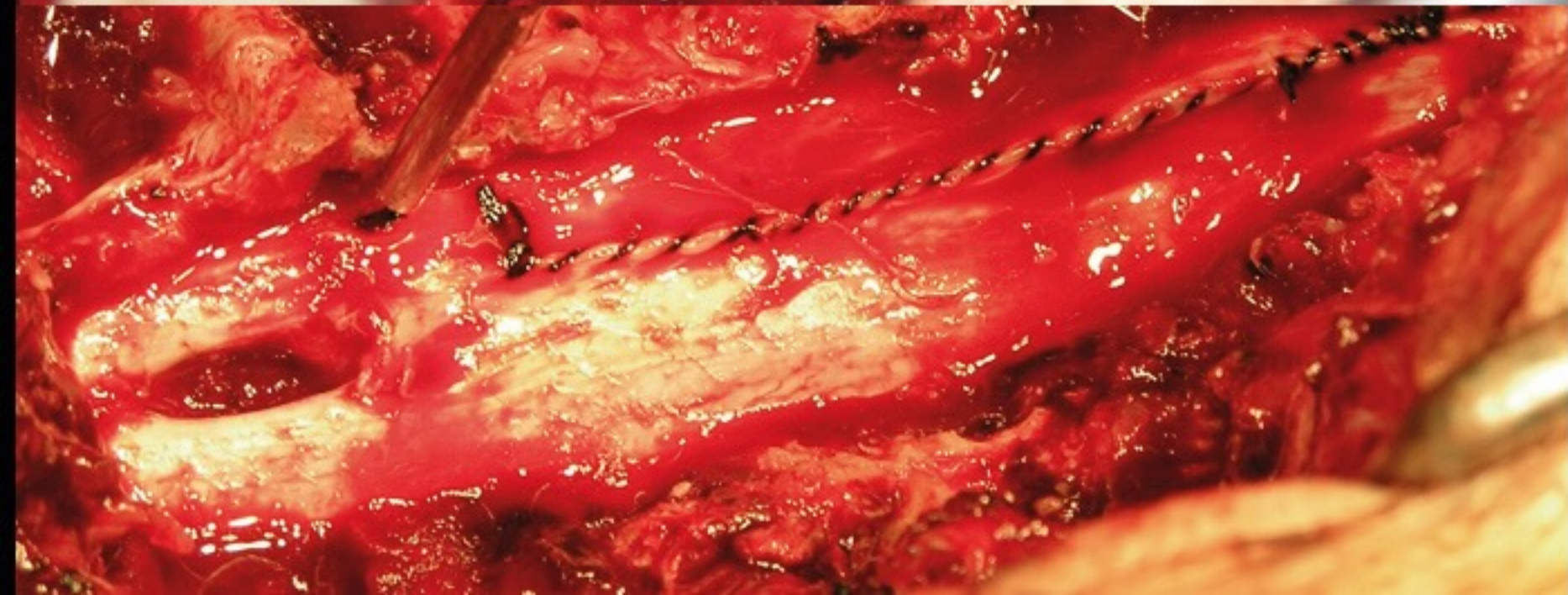
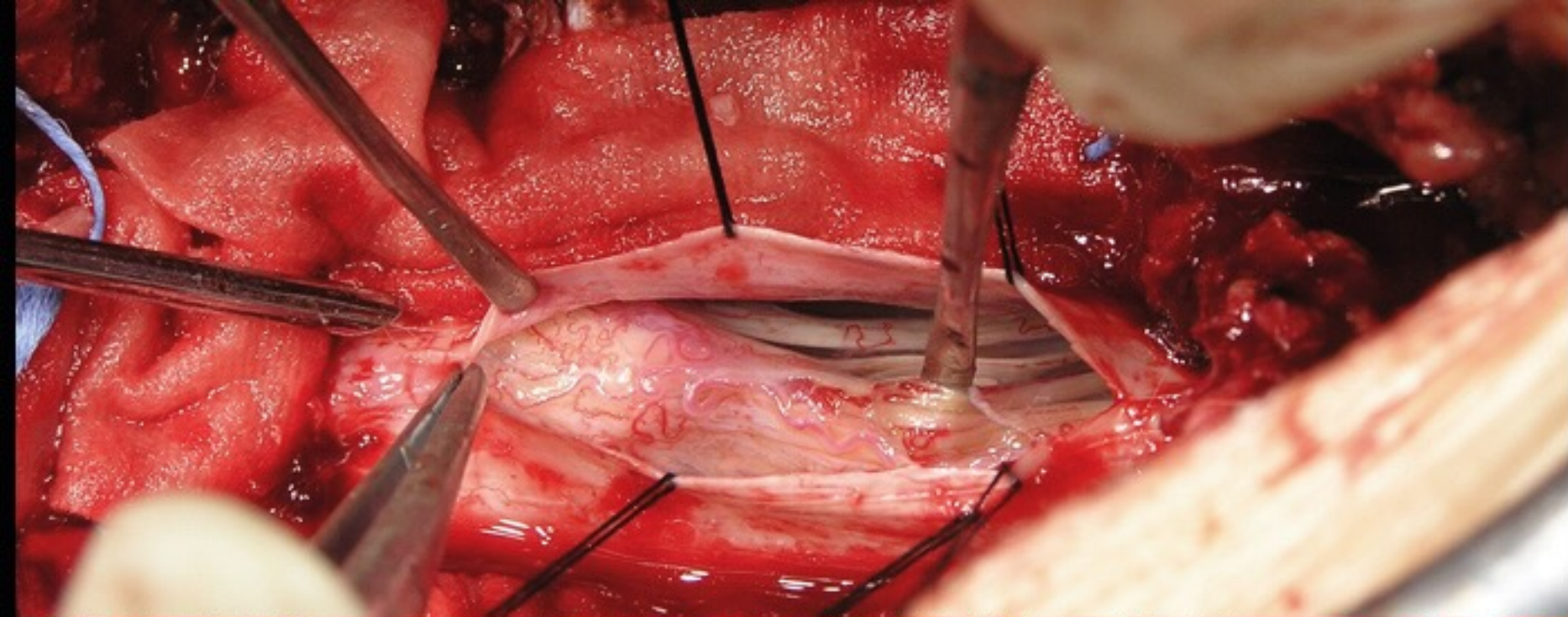


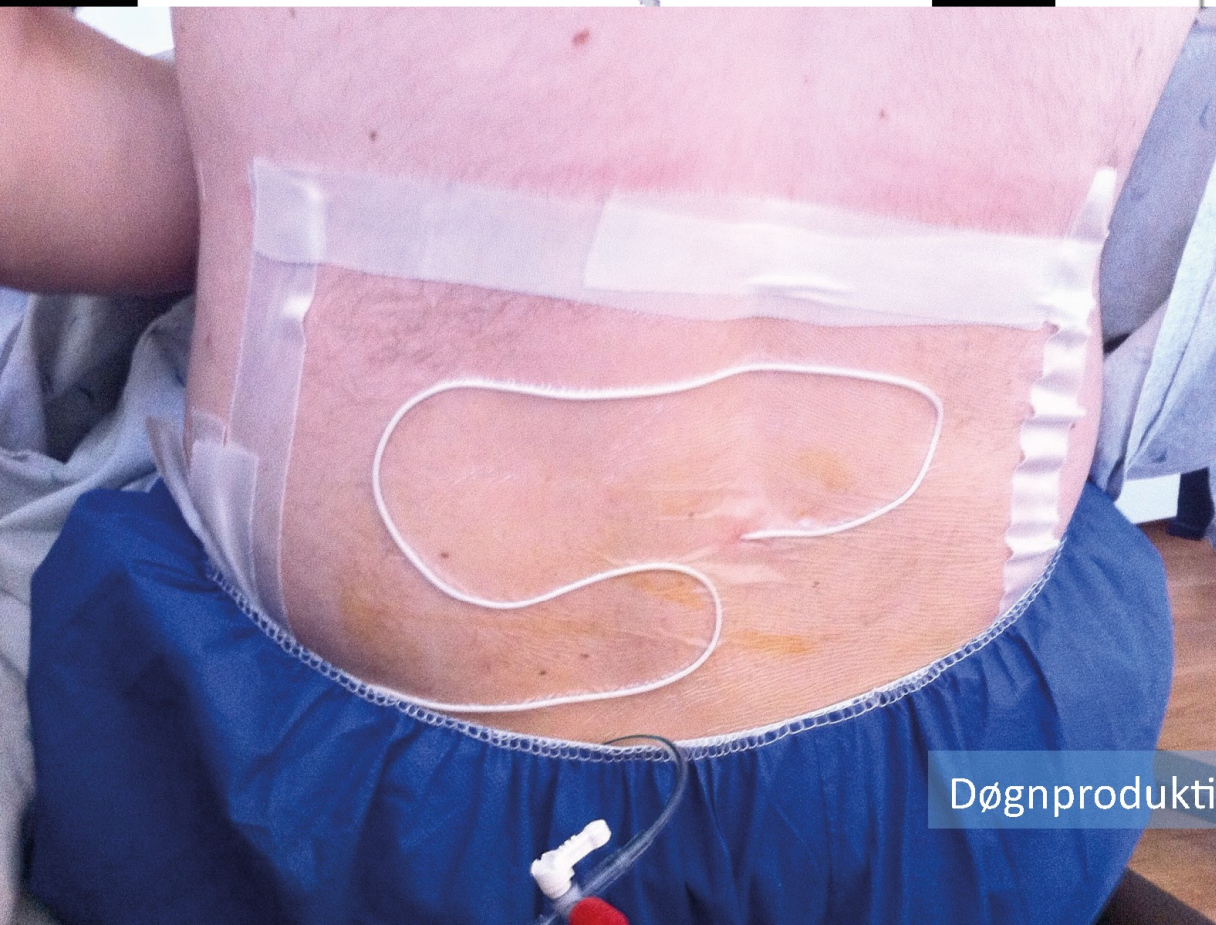
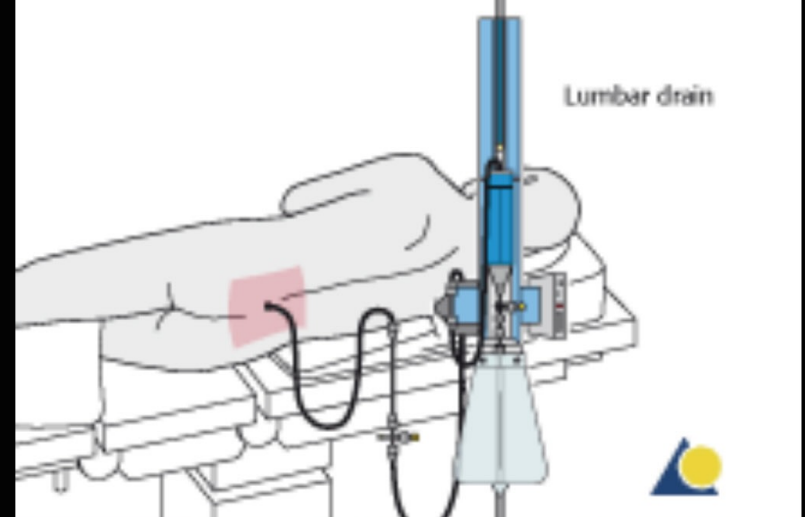
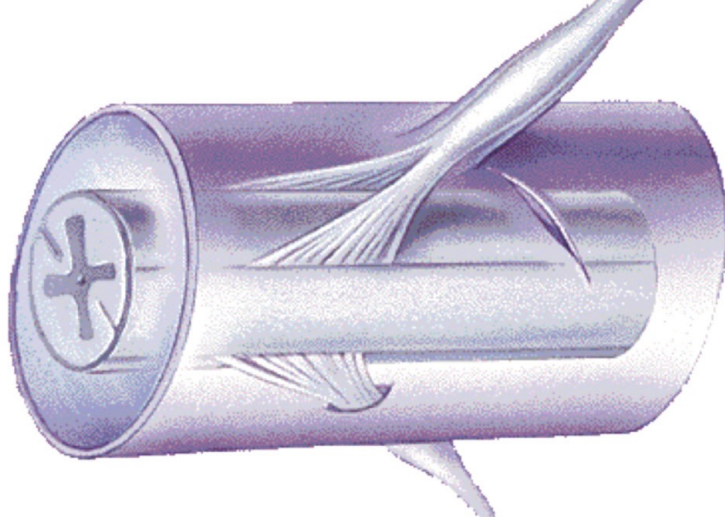


vac.therapy
KCI Healing by design



Durarift



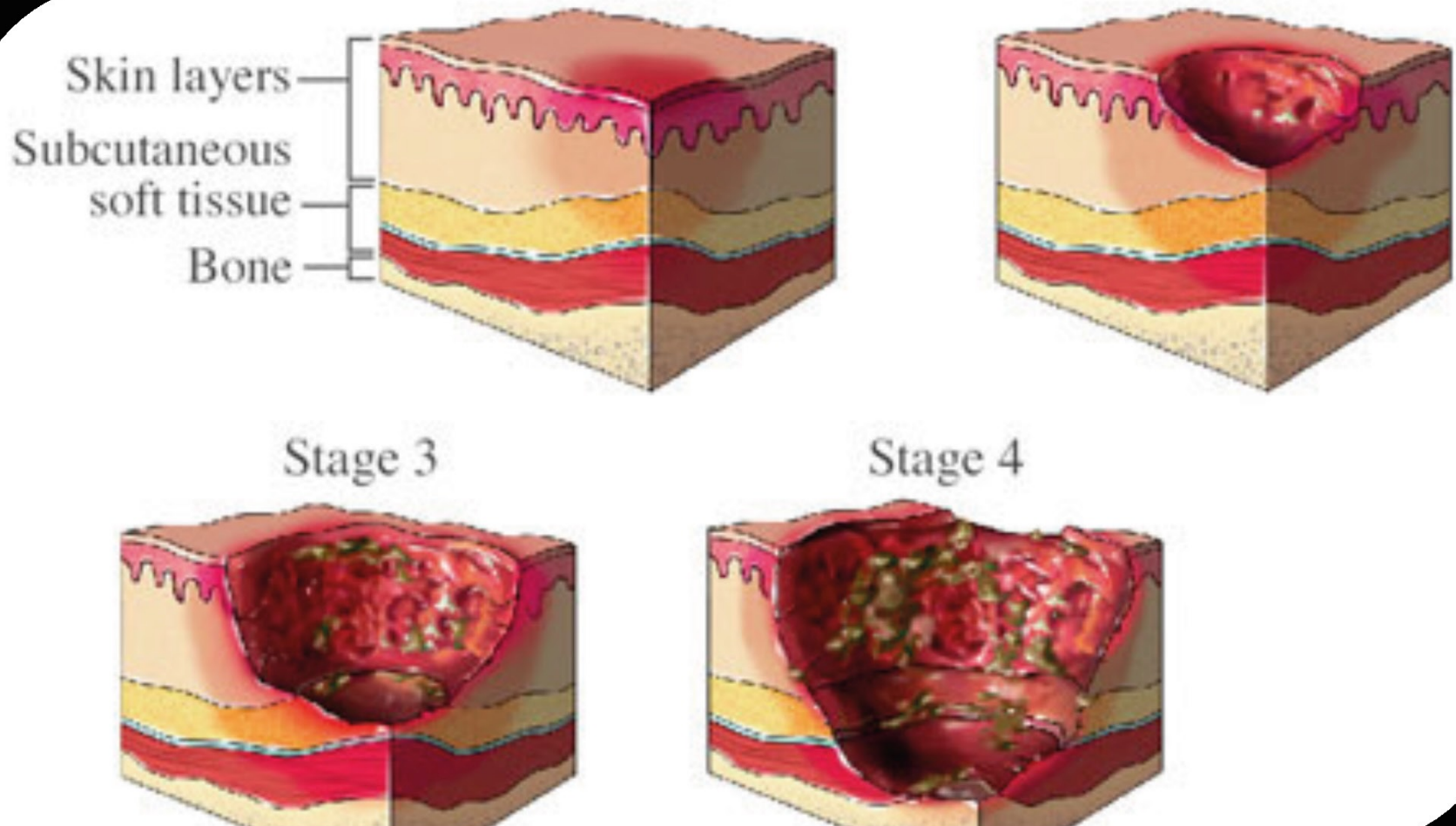


Døgproduktion: 500 ml



Lejring

Tryksår

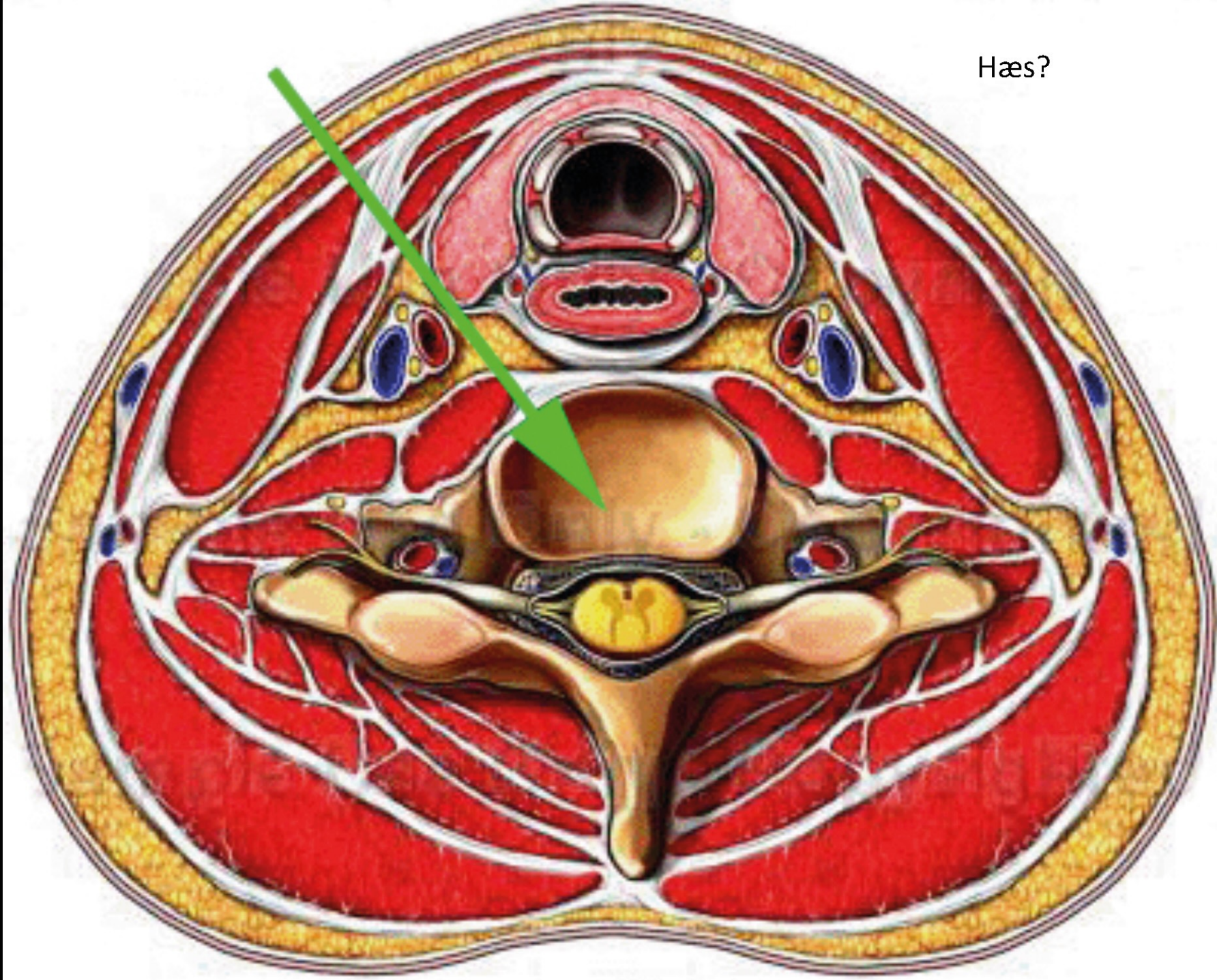


SYGEPLEJE TIL DEN NYOPEREREDE

- Accelererede patientforløb med tværfaglig indsats via INFORMATION, tidlig mobilisering og medinddragelse af patienten
- Observation for nytilkomne neuroudfald (lægekald) – parese eller paralyse
- Hæmatomdannelse: overfladisk eller dybt?
- Drænproduktion – obs. durarift!
- Kontinuerlig VAS-scoring. Obs: vægt, erfaring, misbrug, angst, neurogen type, anden lejring, posterior adgang
- POUR: blærefyldningsfornemmelse? SIK
- TL ved durarift
- Ernæring så hurtigt som muligt – dysfagi? faste?

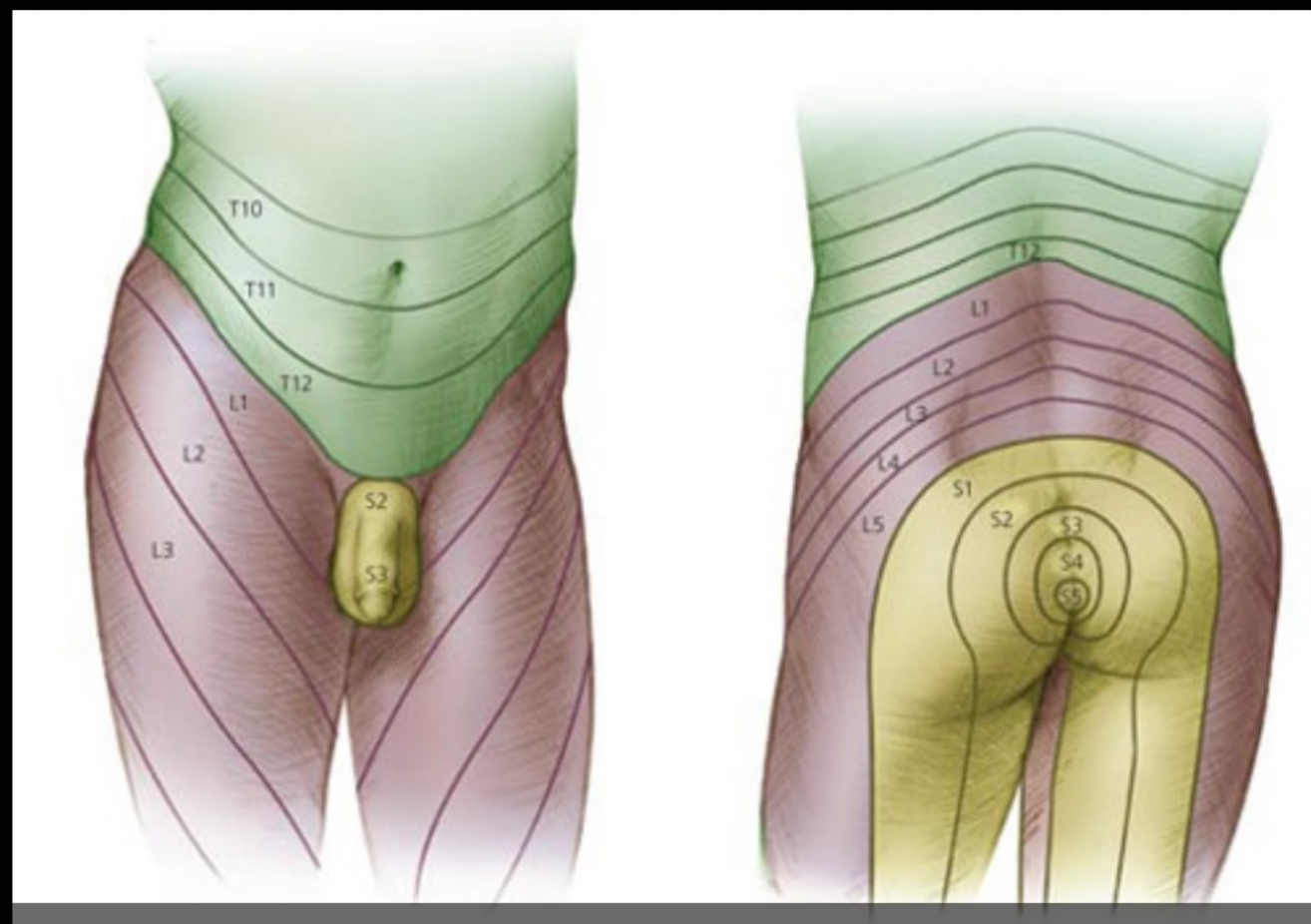
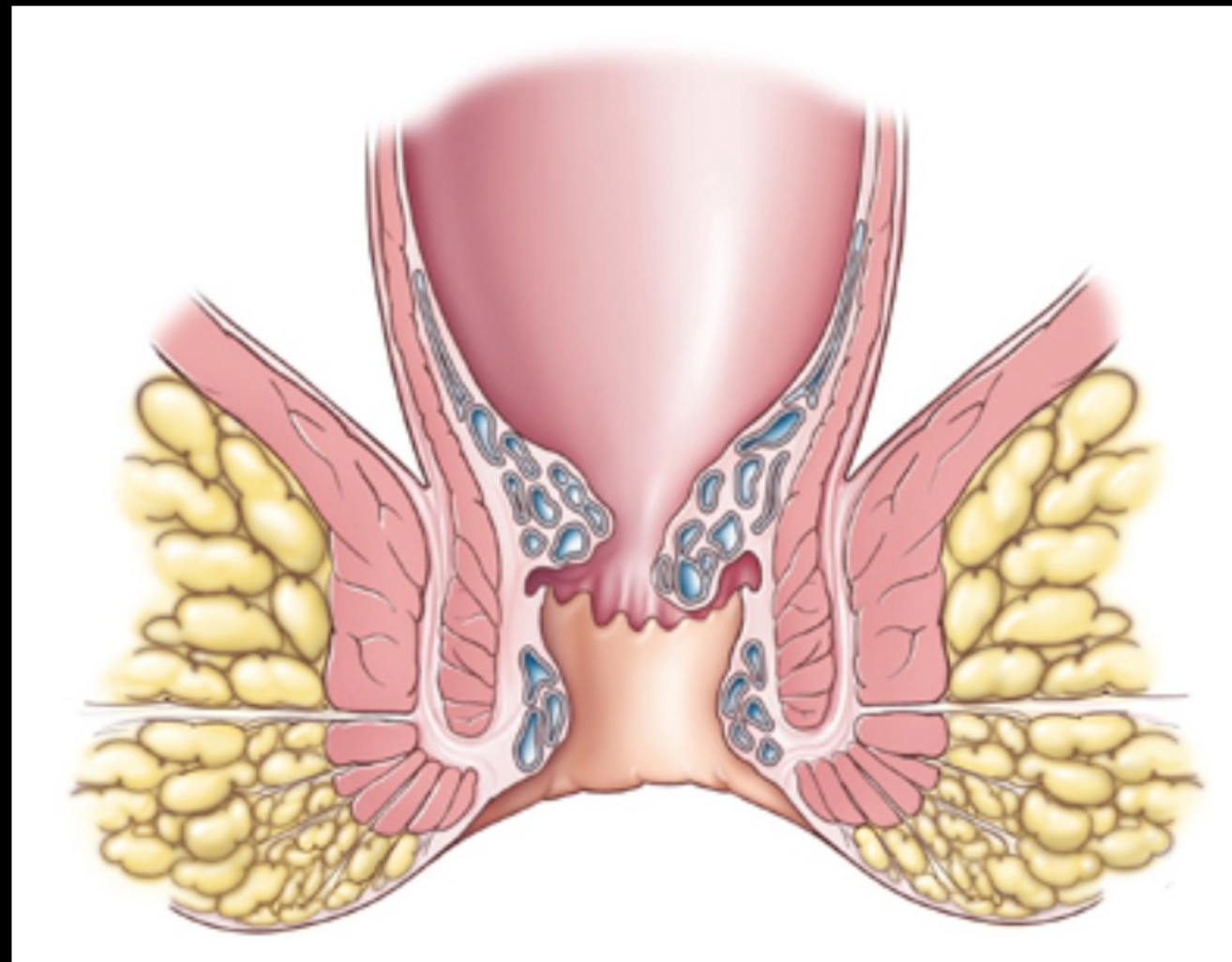
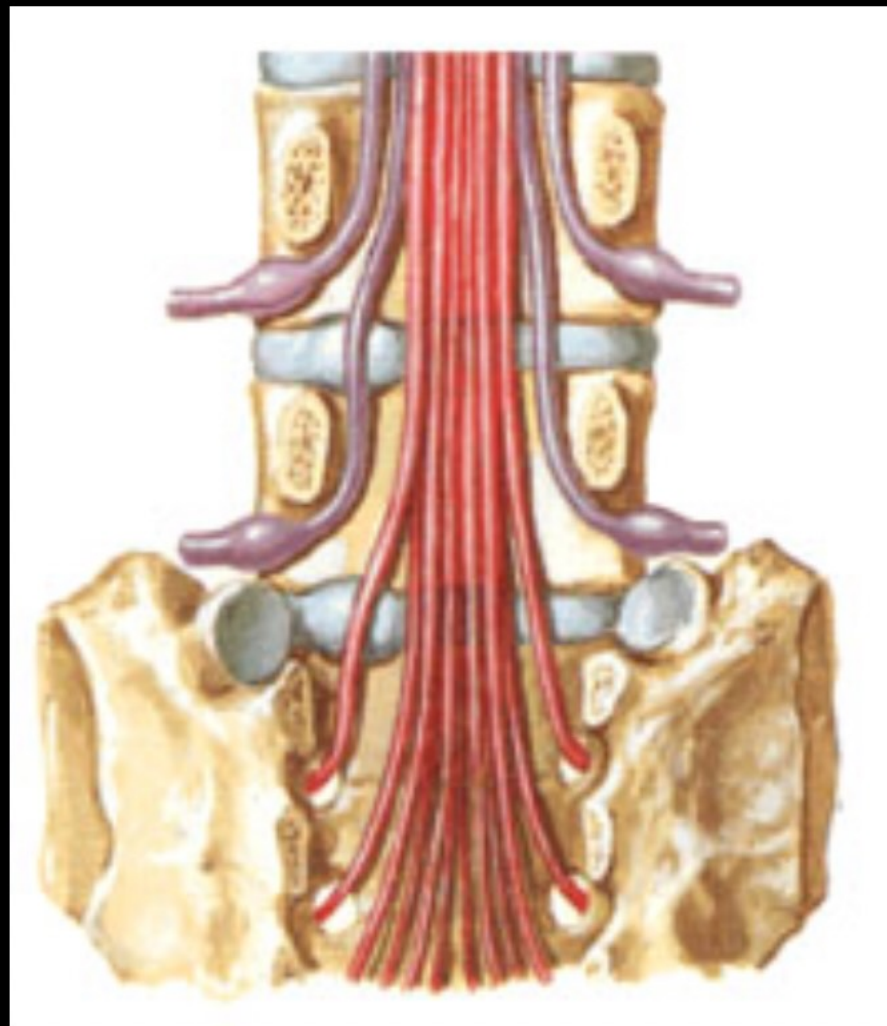
Akut
operation

Hæs?



Cauda Equina Syndromet

Heldigvis utroligt sjældent men alvorligt – giver sfinkterpåvirkning med urinretention (ophævet fornemmelse af blærefyldning, evt. overløbsinkontinens) – slap sfinkter - nedsat perianal sensibilitet – bilat. symp. Akut behandling: Faste, blæreskanning (efter vandladning!), KAD, akut MR eller CT, evt. kontakt til rygkirurg mhp. akut operation (inden 6-24-48 timer)



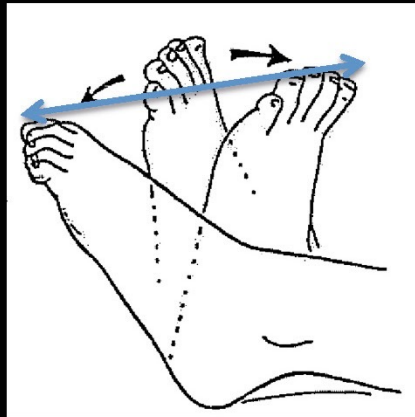
Klinisk diagnose



Andre årsager til UR:
Smerter, morfika, BPH

Ingen UR: risikoen for CES er 1/1.000 !!!

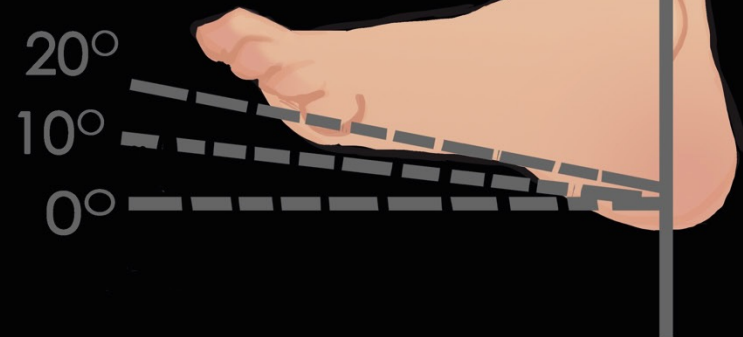
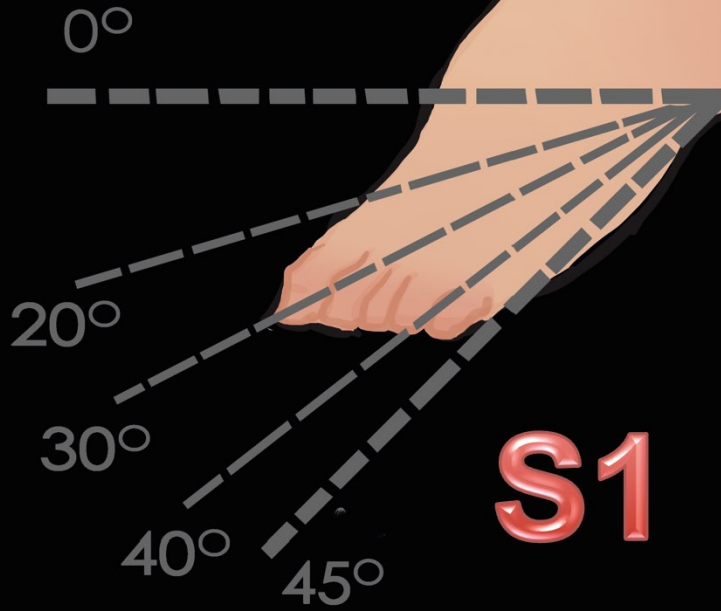
Plantar Flexion



DROPFOD

Dorsiflexion

L5

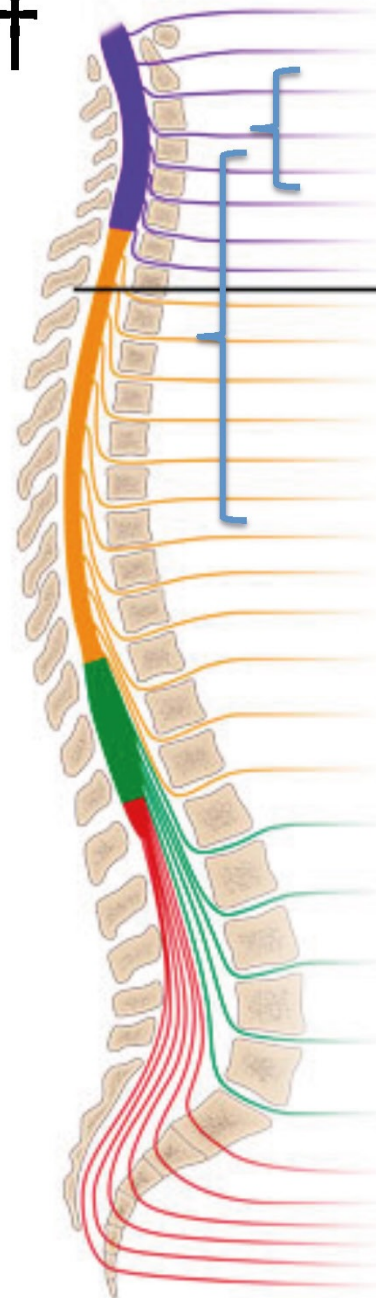


Smertedæk – Overtal – Varighed?

Acute Spinal Cord Injury

Ophævet spontan resp.
Diafragma (n. Phrenicus: C3-C5)

Paradox respiration
med inspiratoriske
indtrækninger (ses ved
rygmarvslæsion mellem
C5-Th6)



Quadriplegia
(loss of movement
and sensation
in all four limbs)



Paraplegia
(loss of movement
and sensation
in the lower half
of the body)



Respiratoriske symptomer

Effekt

Effekten af operation

- 
- A photograph of a surgical team in an operating room. Five surgeons, wearing blue scrubs, blue bouffant caps, and white surgical masks, are gathered around a patient lying on an operating table. They are focused on a surgical site illuminated by bright overhead lights. The background shows typical operating room equipment, including monitors and medical carts.
- Diskusprolaps: 8/10
 - Stivgørende operation i lænden: 2/3



Danespine

Landsdækkende
rygkirurgisk
PRO-database

[OM DANESPINE](#)[INDBERETNING](#)[SPØRGESKEMAER](#)[NYHEDER](#)[KONTAKT](#)

OM DANESPINE

[Kontaktpersoner](#)[Registerstyregruppen](#)[Årsrapporter](#)[Vedtægter](#)

DRKS DaneSpine > Om DaneSpine

Om DaneSpine

DaneSpine er en landsdækkende klinisk kvalitetsdatabase, som indeholder data for rygopererede patienter og er baseret på et frivilligt samarbejde mellem landets rygopererende afdelinger og klinikker.

Dansk Rygkirurgisk Selskab har siden 2009 ejet og drevet databasen. Der er etableret et nationalt sekretariat, der aktuelt er placeret på Sektor for Rygkirurgi og Forskning, Middelfart Sygehus, der understøtter den daglige drift. I 2012 er der indberettet til DaneSpine fra 15 forskellige klinikker fordelt over hele landet - af disse er 5 privatklinikker og 10 er offentlige klinikker.

Ambitionen er at skabe en landsdækkende database, der systematisk indsamler data om rygkirurgiske patienter, operative procedurer og resultater. Herved er det muligt at kvalitetsvurdere og ved behov forbedre forløb og behandling for patienter, der opereres for lænde- og rygproblemer i Danmark.

I menuen til venstre kan du finde flere oplysninger om bl.a. vedtægter, organisering og årsrapporter...

Senest opdateret 18-04-2016.

Kontakt: **DaneSpine**

CASE

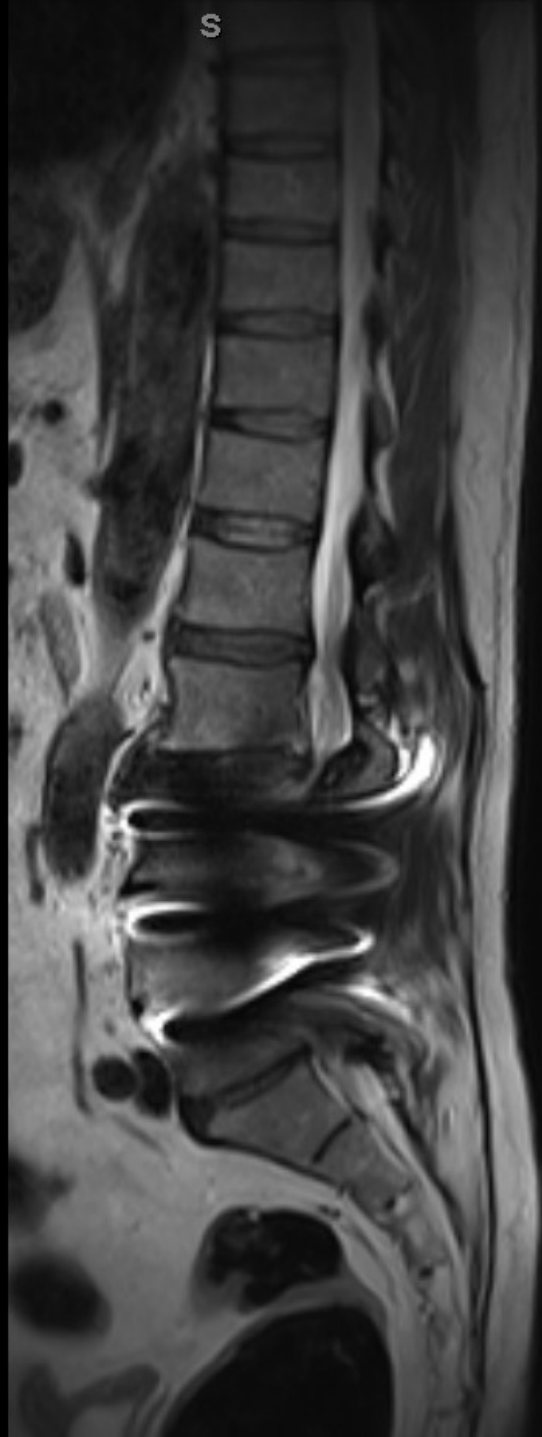
70-årig mand

- Lumbal dese L3-L5 i 1999
- Rygsmerter med udstråling til venstre ben
- Positiv strakt-ben-test
- Blæreskanning: 800 ml
- Svært nedsat perianal sensibilitet
- Ophørt voluntær sfinkterkontraktion
- Rimelig sfinktertonus
- Tidspunkt da du ser pt: 23:30

Diagnose?
Udredning?

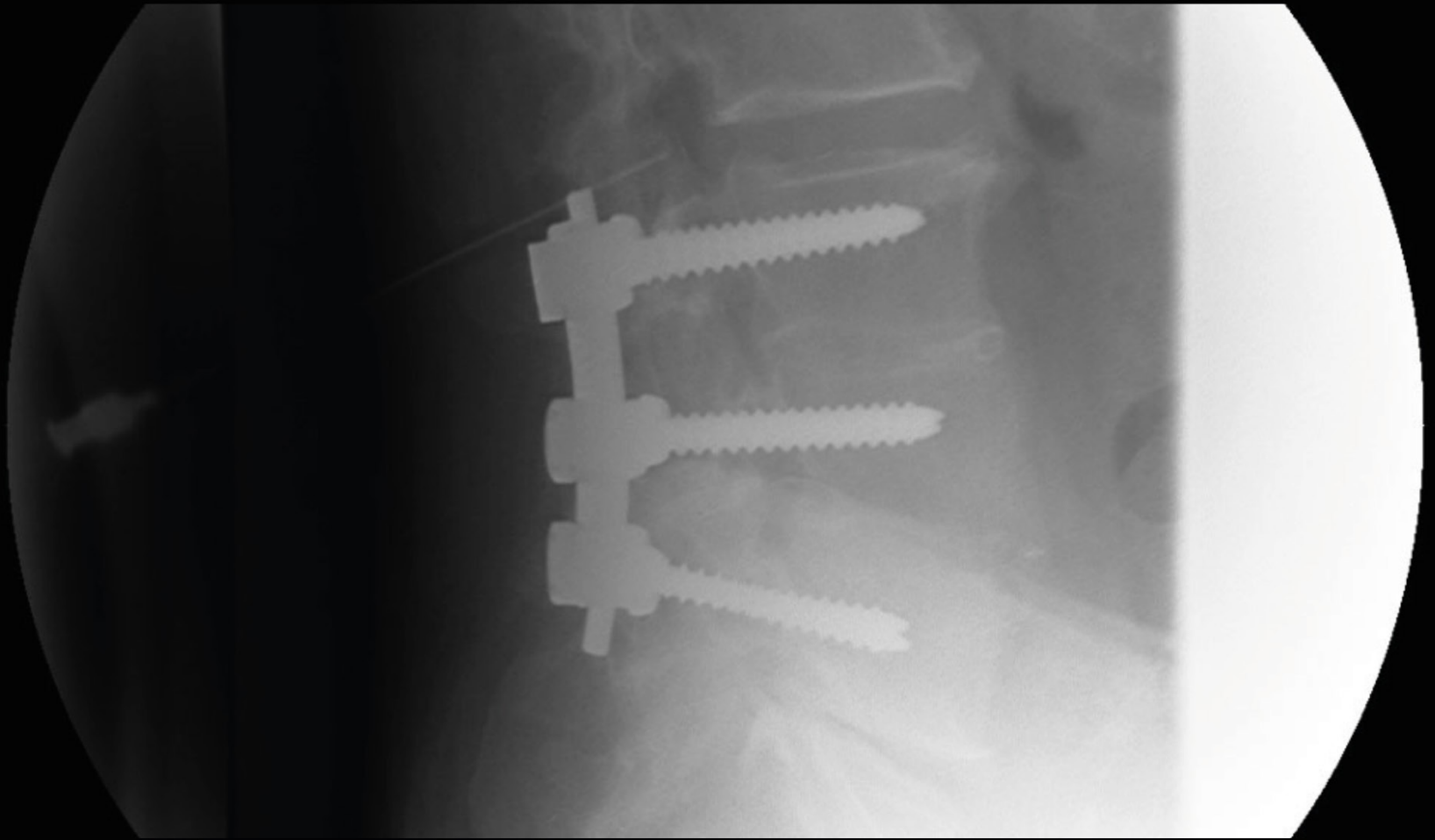
CT-skanning





MR-skanning

Myelografi



Peroperativ myelografi

