

Kraniospinal yaralanmalarda sorun nerede ?

Dr.Ibrahim Erkutlu

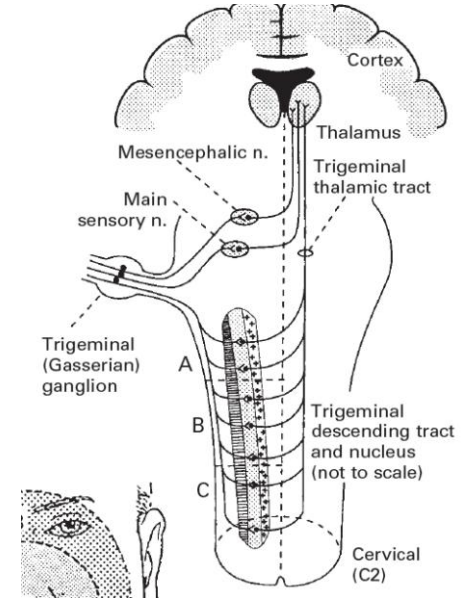
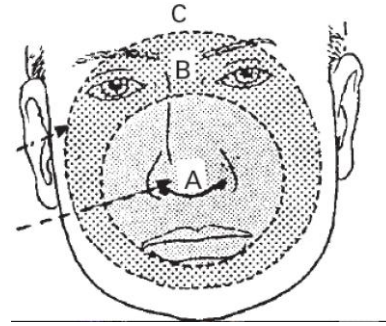
Sunum Planı

- Problem Nerede? Olgü sunumları!
- Önemli öncelikleri sıraya dizme
- Neleri mutlaka bilmeliyiz?
- Bilgi sahibi olmadan fikir sahibi olunamaz!
- Neleri mutlaka bilmeliyiz?
- Kraniyal travmada ana sorun nedir?
- Kraniyal travmada hızlı ayırıcı tanı
- Kraniyal Travmada Temel Tedavi Anlayışı
- Spinal travmada ana sorun nedir?
- Spinal omurga travmasında hızlı karar verme
- Spinal travmalarda İnstabilite kavramı
- Spinal Travmada Temel Tedavi Anlayışı
- Son söz

Problem Nerede?

- Olgu 1:
 - 10y/E
 - Bisiklet kazası
 - Sağda IR zayıf ve midriazis+ solda hemiparezi + bilinç bulanıklığı

- Olgu 2:
 - 45y/E
 - Yüksekten düşme
 - Ağız çevresinde uyuşma
 - FM: Perioral bölgede soğan zarı tarzında hipoestezi + boyun ağrısı



Önemli öncelikleri sıraya dizme



Acil öncesi ve acildeki İLK GÖREVİMİZ TEDAVİ DEĞİL
ÖNCE DOĞRU TANIYI KOYMAKTIR!

Neleri mutlaka bilmeliyiz?

- Fizik muayene
 - Nöroanatomi/fizyoloji/patoloji bilgisi
- Radyoloji
 - Düz grafi—ilk basamak (yanılgı %23-57)
 - **BT---altın standart**
 - MR---sadece spinal trv ve inmede!

Anatomy and Functional Areas of the Brain

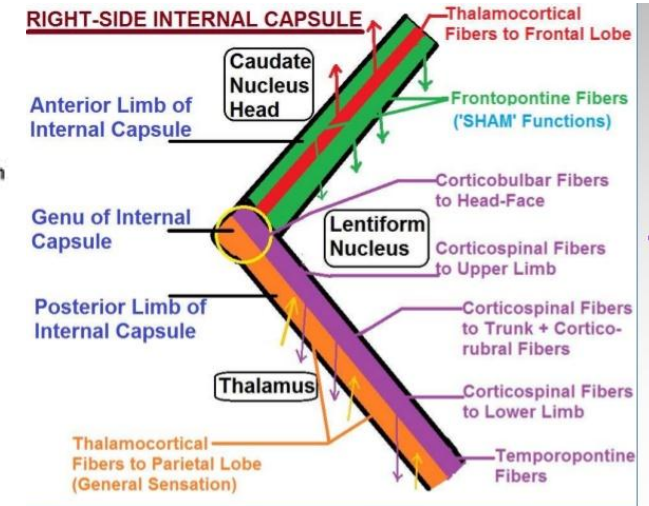
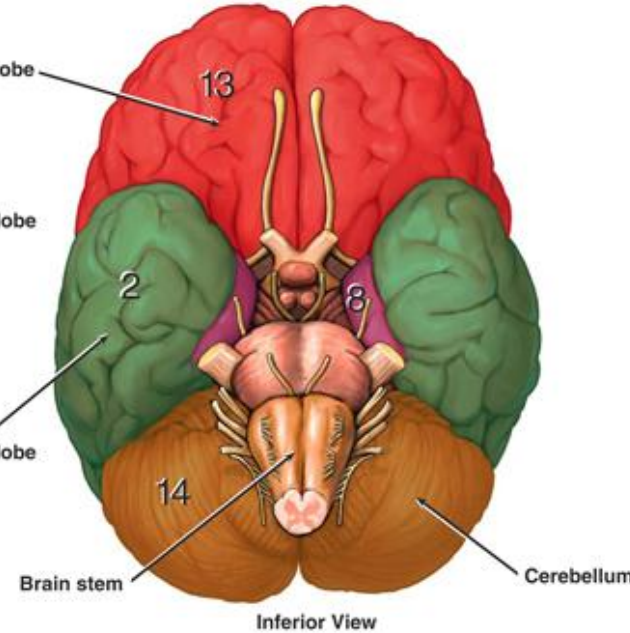
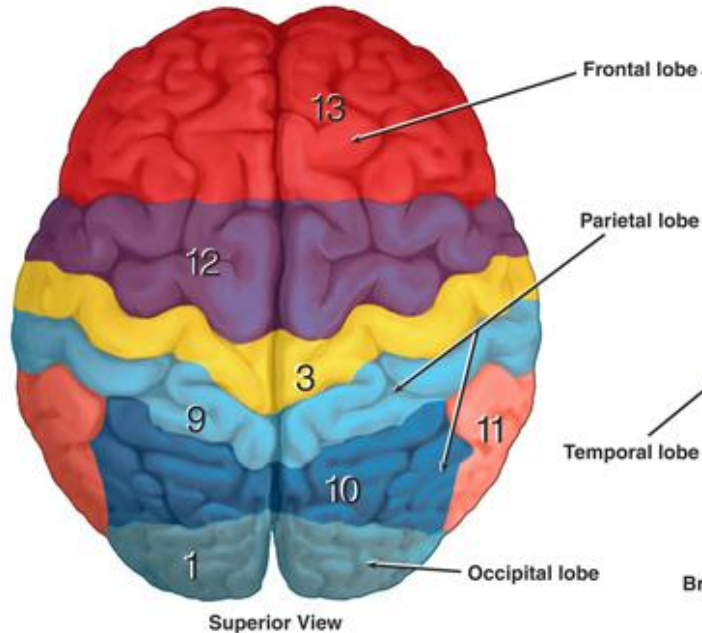
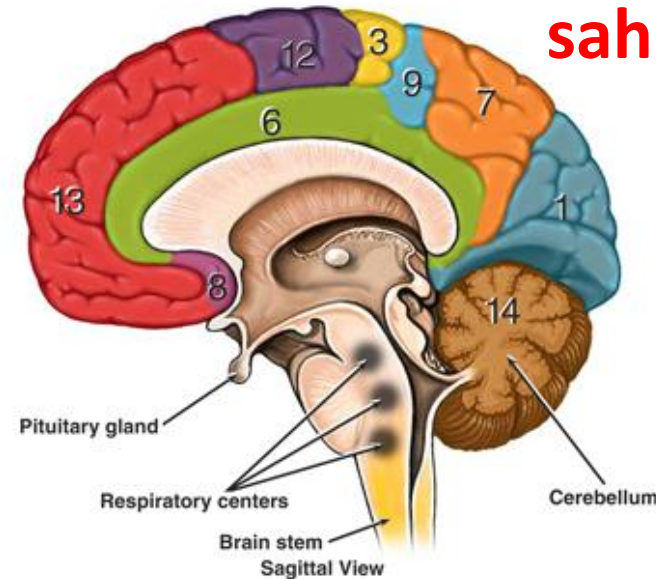
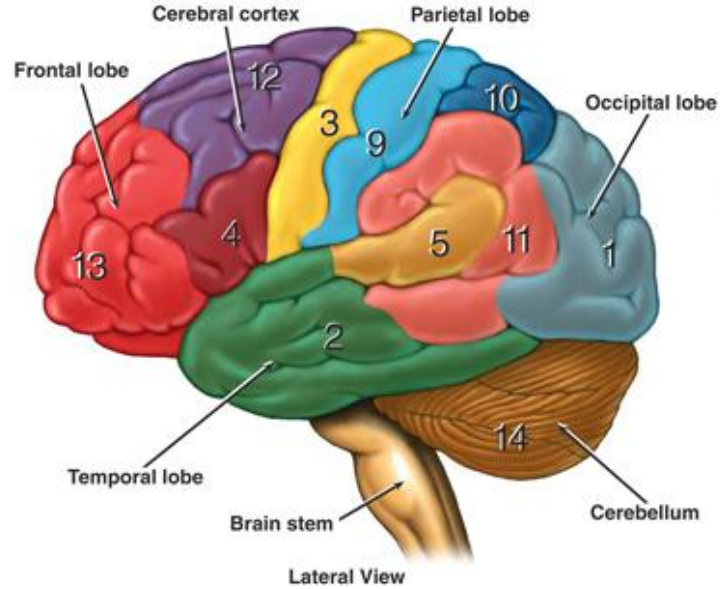
Bilgi sahibi olmadan fikir sahibi olunamaz!

Functional Areas of the Cerebral Cortex

- 1 **Visual Area:**
Sight
Image recognition
Image perception
- 2 **Association Area**
Short-term memory
Equilibrium
Emotion
- 3 **Motor Function Area**
Initiation of voluntary muscles
- 4 **Broca's Area**
Muscles of speech
- 5 **Auditory Area**
Hearing
- 6 **Emotional Area**
Pain
Hunger
"Fight or flight" response
- 7 **Sensory Association Area**
- 8 **Olfactory Area**
Smelling
- 9 **Sensory Area**
Sensation from muscles and skin
- 10 **Somatosensory Association Area**
Evaluation of weight, texture, temperature, etc. for object recognition
- 11 **Wernicke's Area**
Written and spoken language comprehension
- 12 **Motor Function Area**
Eye movement and orientation
- 13 **Higher Mental Functions**
Concentration
Planning
Judgment
Emotional expression
Creativity
Inhibition

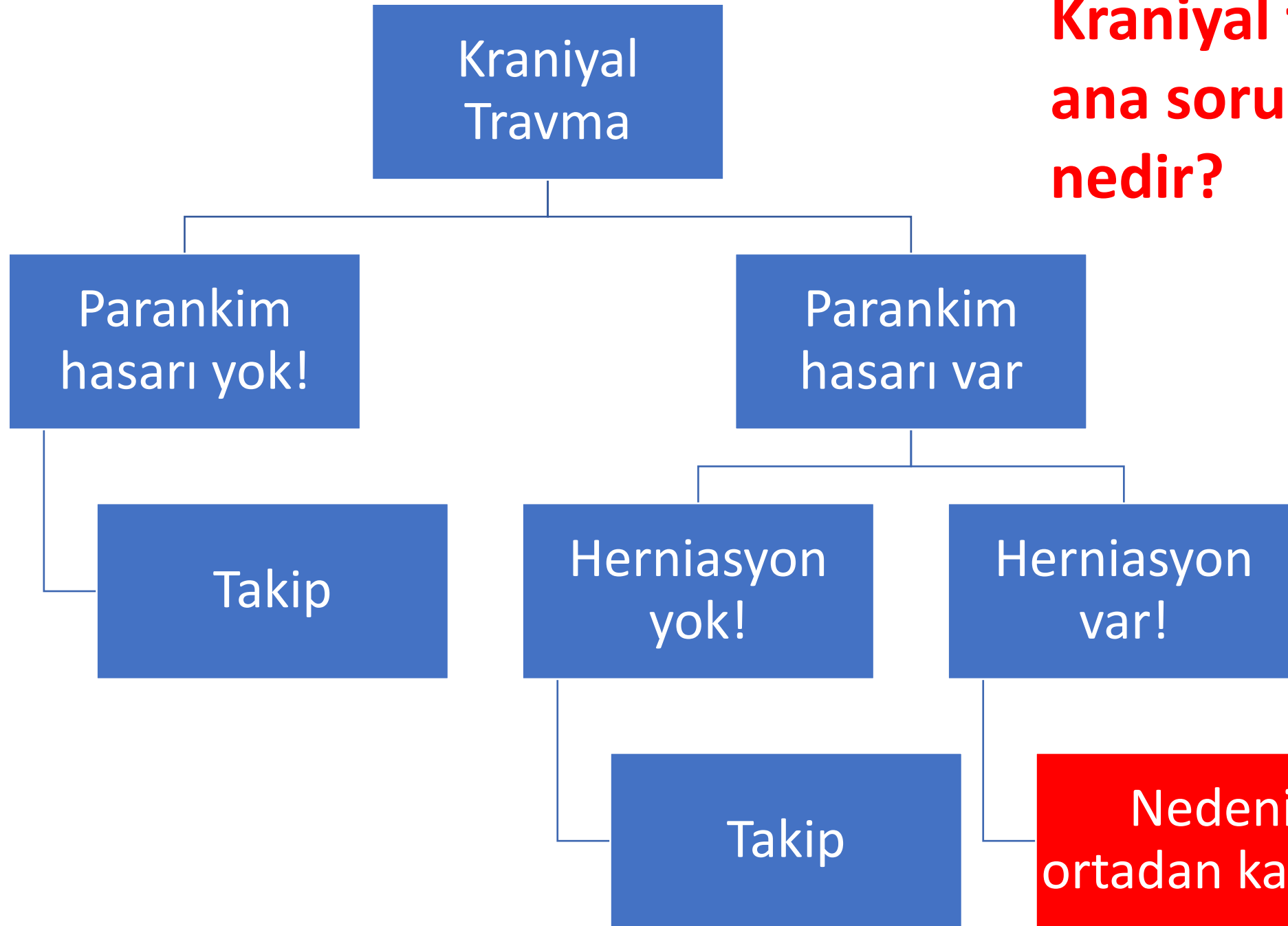
Functional Areas of the Cerebellum

- 14 **Motor Functions**
Coordination of movement
Balance and equilibrium
Posture

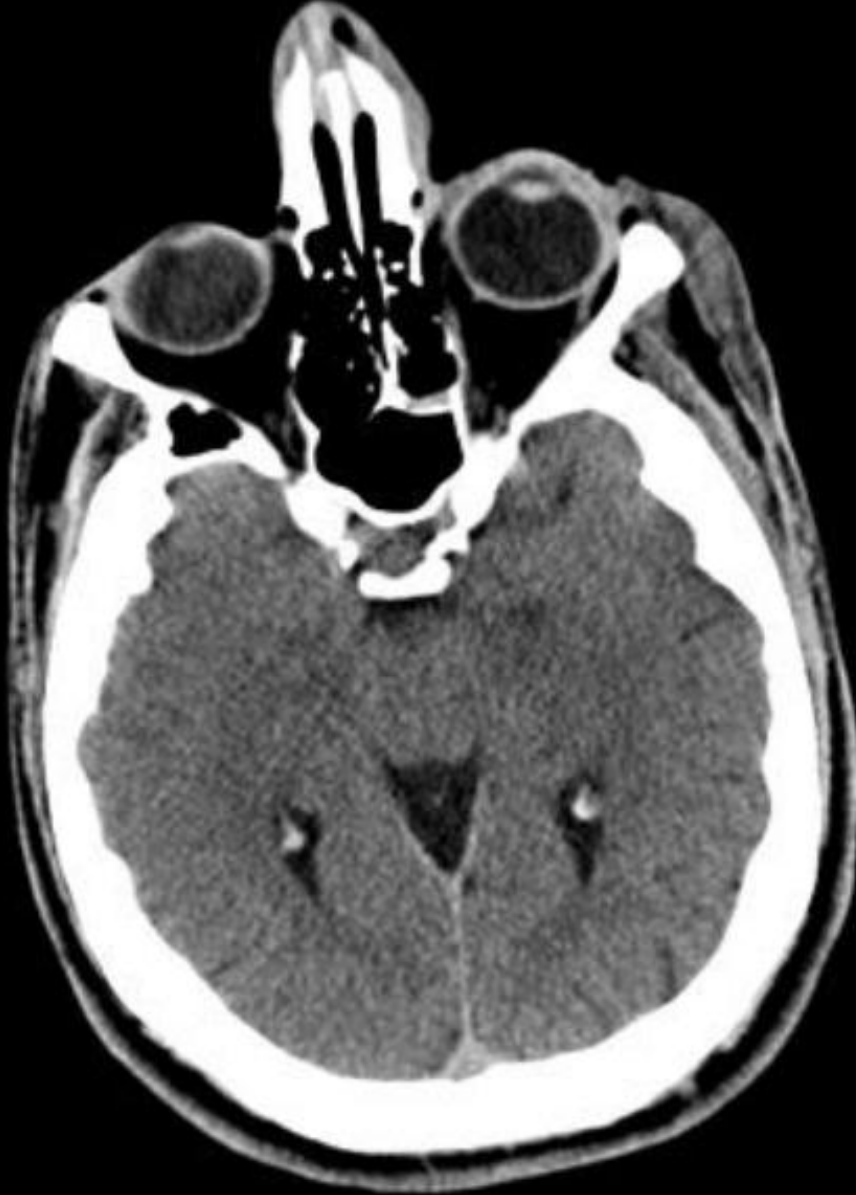


Internal Capsule – Tracts

Kraniyal travmada ana sorun nedir?



Kraniyal travmada hızlı ayırıcı tanı koyma



**KEMİK/
AKUT KANAMA/
KALSİFİKASYON/LENS**



PARANKİM



HAVA



SU

BBT DE TOPLAM 4 RENK VAR!

1



**TSAK
SOLUCAN**

2



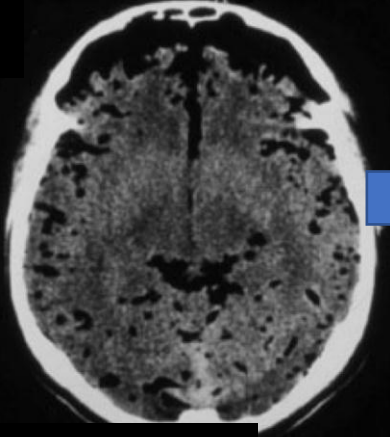
**CÖKME
PINPON TOPU**

3



**ASDH
HİLAL**

7



**HAVA
SİYAH BİLYELER**

6



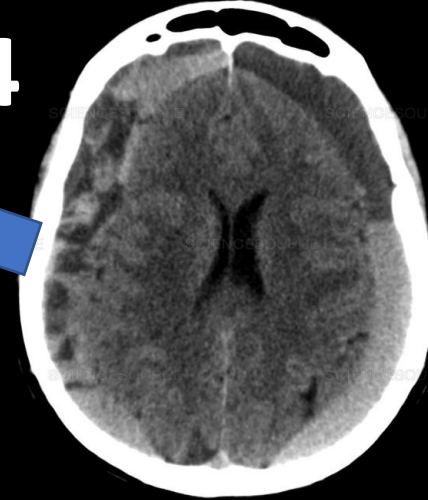
**KONTUZYON
PAMUK ATIĞI**

5

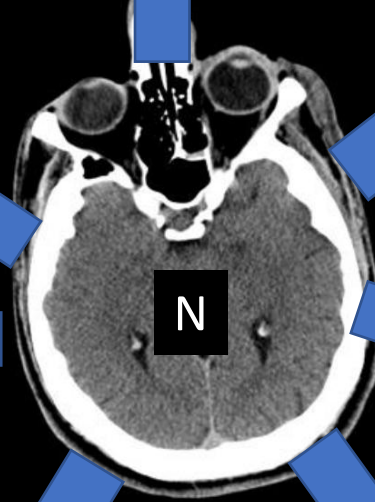


**EDH
LENS**

4



**A/KSDH
BESIKTAS
HİLALİ**



TRAVMATİK KAFA KARISTIRAN TANILAR

8



K-SDH

SİYAH HİLAL

9



SA-SDH

GRİ HİLAL

NON-TRAVMATİK KAFA KARISTIRAN TANILAR

10



IVH

KELEBEK

11



ISH

TOP

12



ASAK

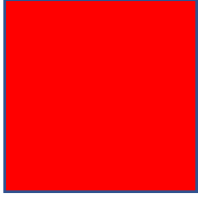
ÖRÜMCEK

13



STROKE

SİYAH GÖLGE



ACIL CERRAHI

ACILDEKİ ÖNCELİĞİMİZ!!



ELEKTİF CERRAHI

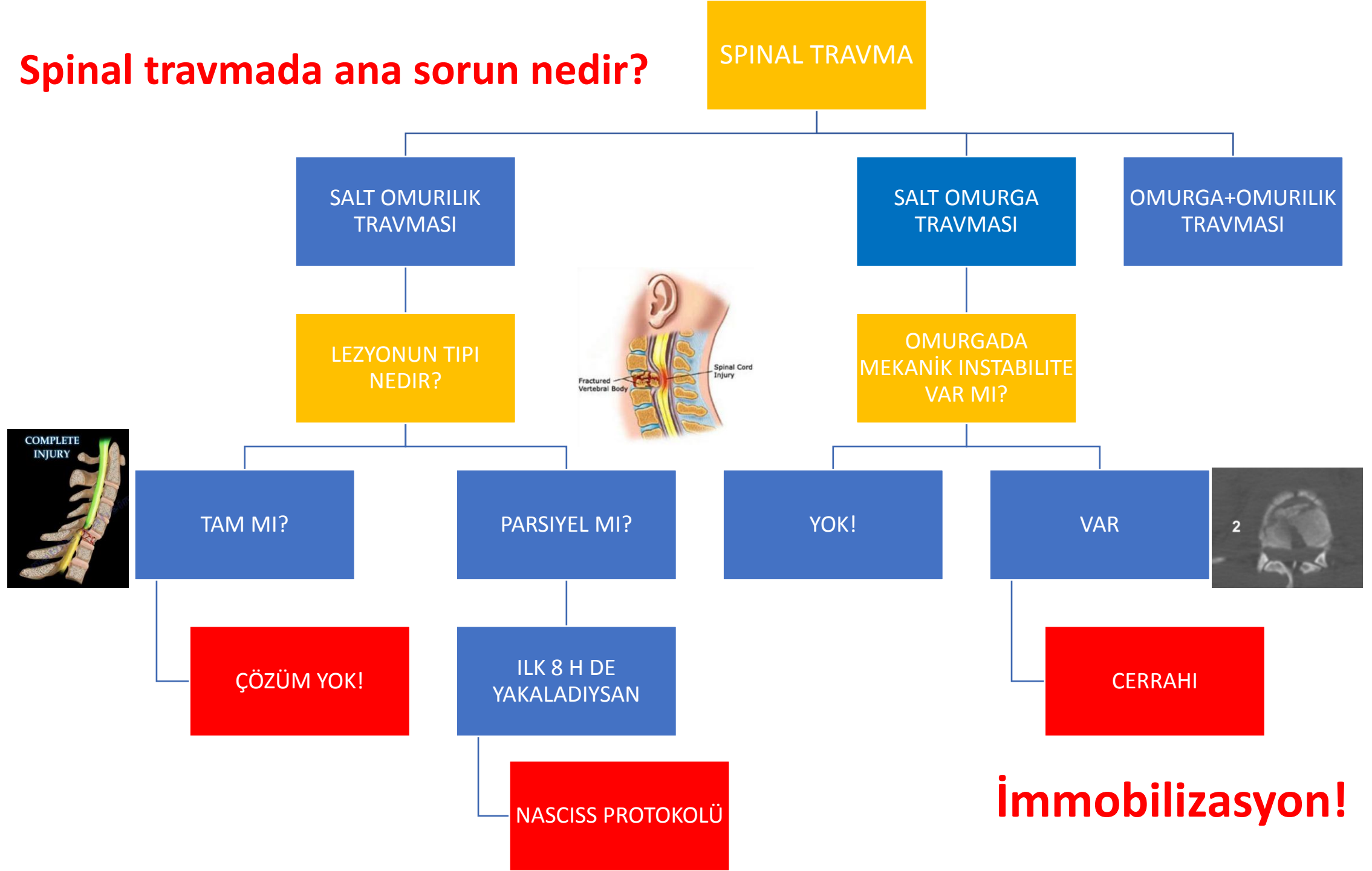


TAKIP-GEREKİRSE CERRAHI

Kraniyal Travmada Temel Tedavi Anlayışı

- Sekonder hücre hasarını engellemek
- Potansiyel Herniasyon nedenlerini ortadan kaldırmaktır!

Spinal travmada ana sorun nedir?



Mechanical Stability:

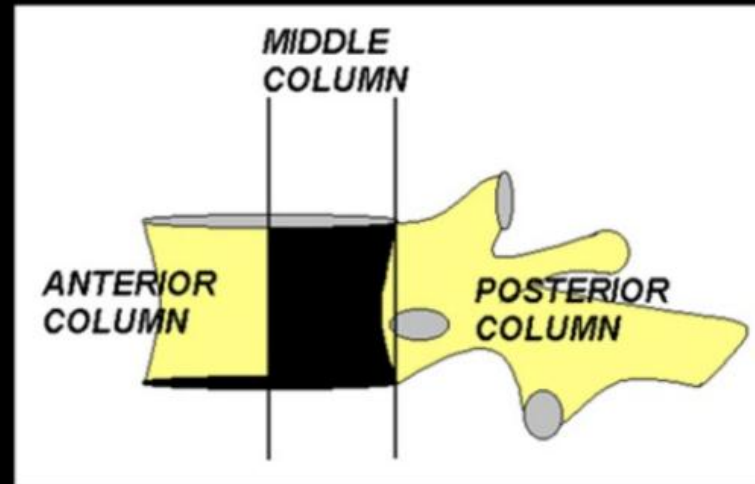
Maintain alignment under physiologic loads without significant onset of pain, deformity or neural compression.

2-COLUMN THEORY (HOLDSWORTH, '53)

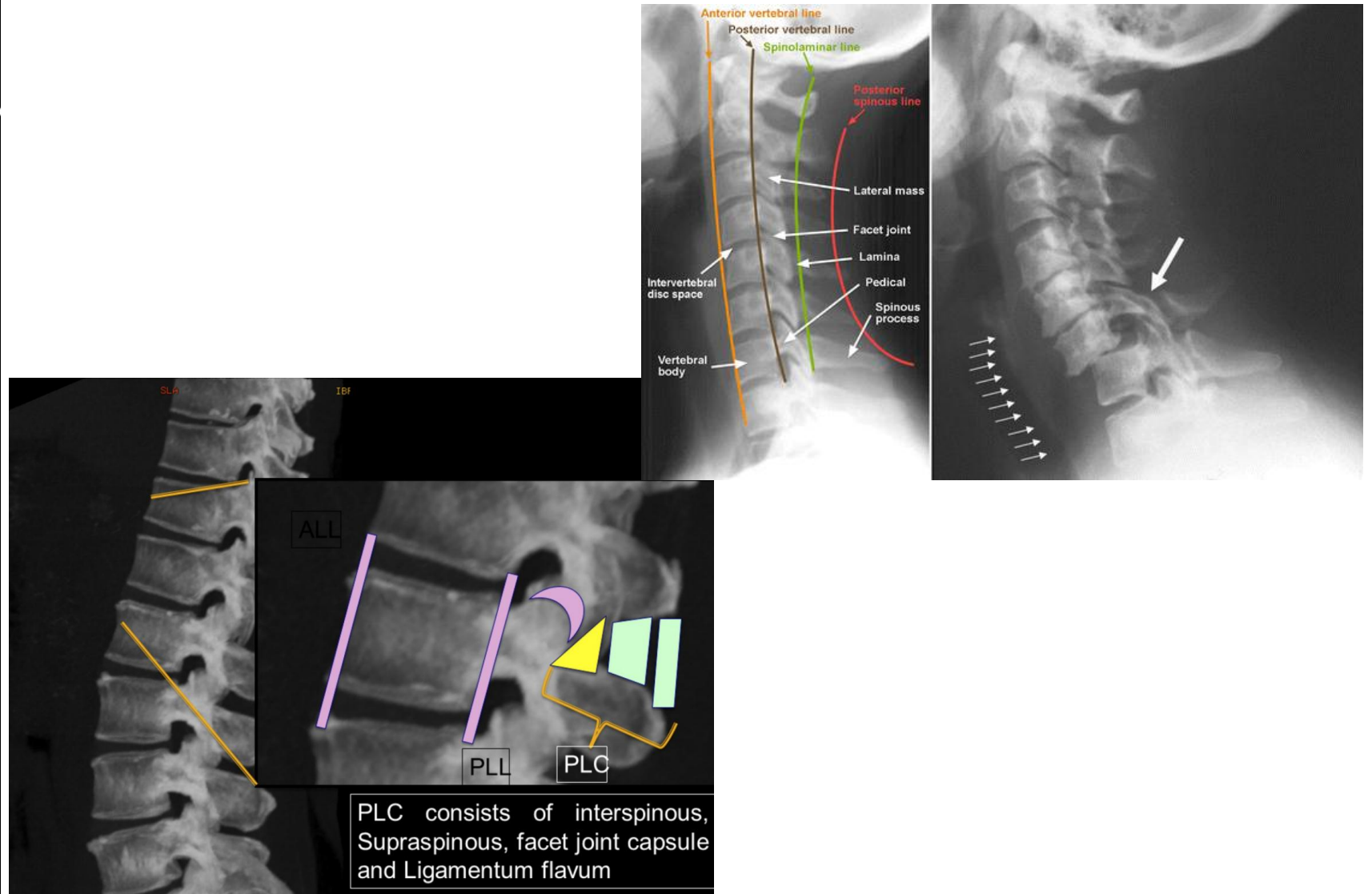
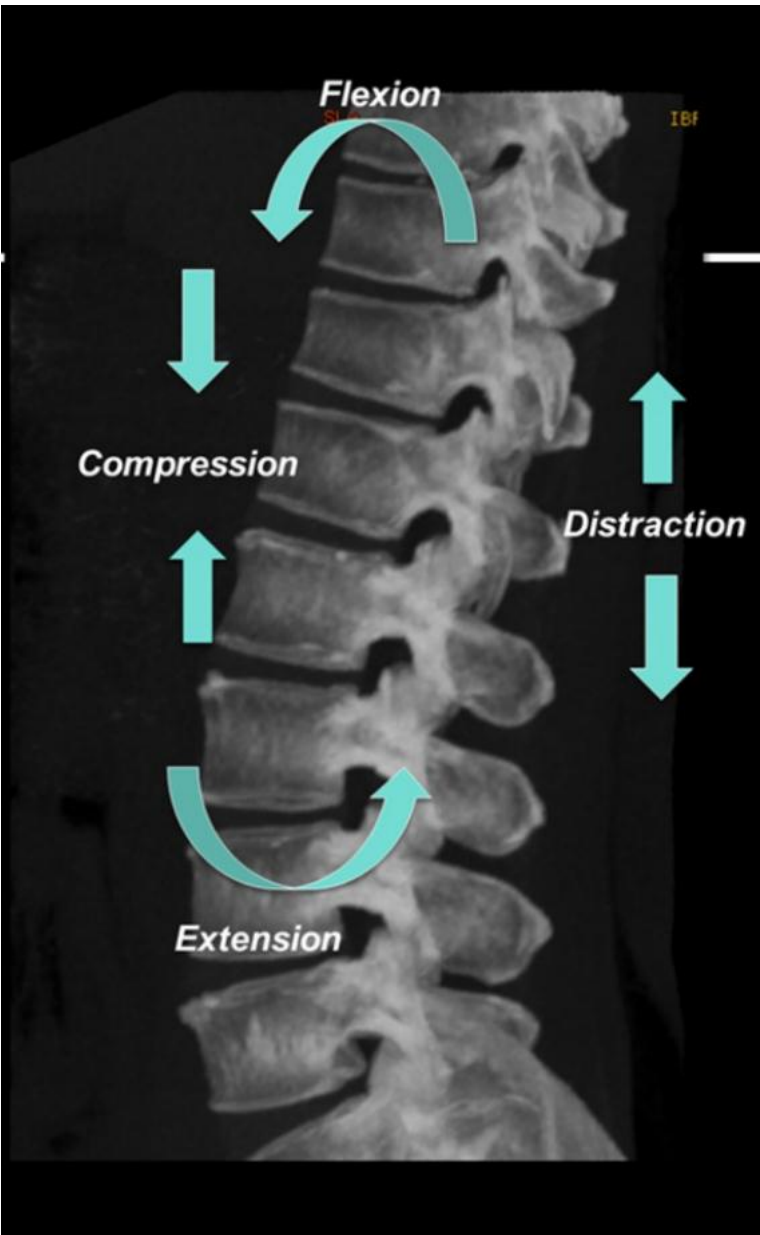
- Anterior Column= Vertebral body, Intervertebral disc, Anterior/Posterior Longitudinal ligament
- Posterior Column= neural arch, Post ligament complex [PLC]- facet joint capsule, Ligamentum flavum, interspinous and supraspinous ligaments
- Holdsworth Anterior column = Denis Anterior + Middle column
- PLC is key to stability

3-COLUMN THEORY (DENIS '83)

- Middle column = posterior $\frac{1}{2}$ VB, posterior disc, post longitudinal ligament
- Middle column is key to stability
- Stable burst fracture defies the theory

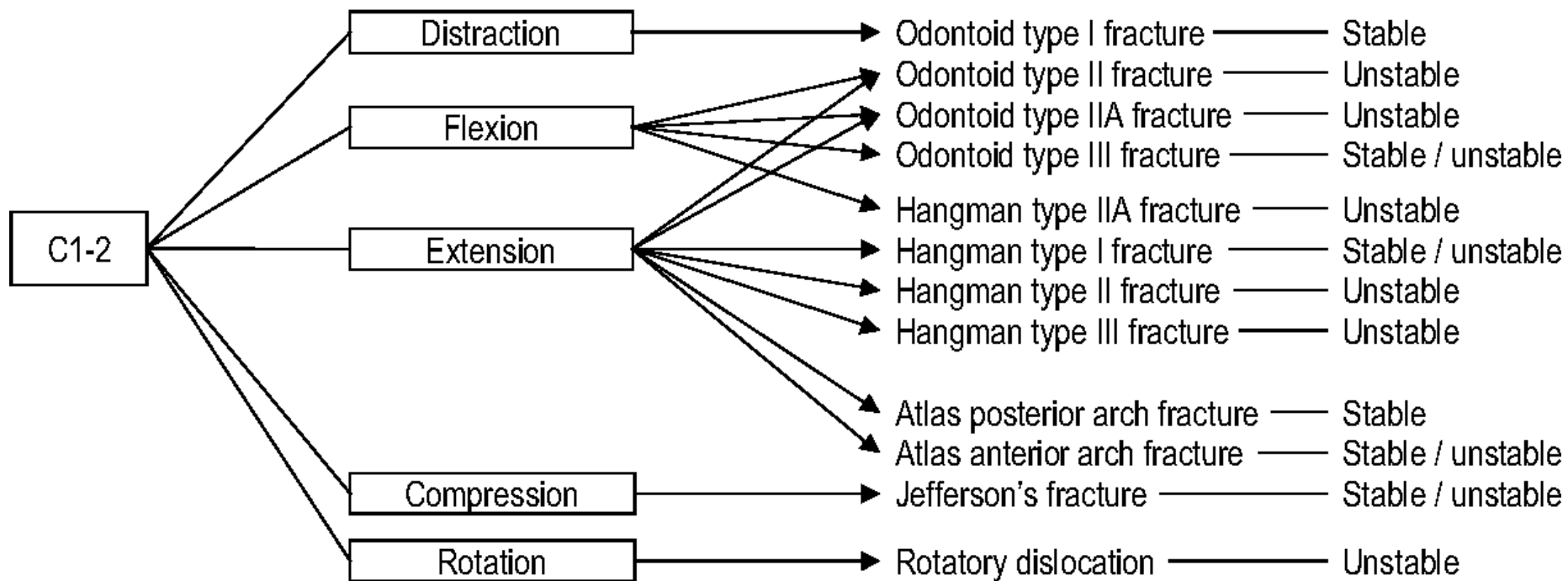


Spinal omurga travmasında hızlı karar verme

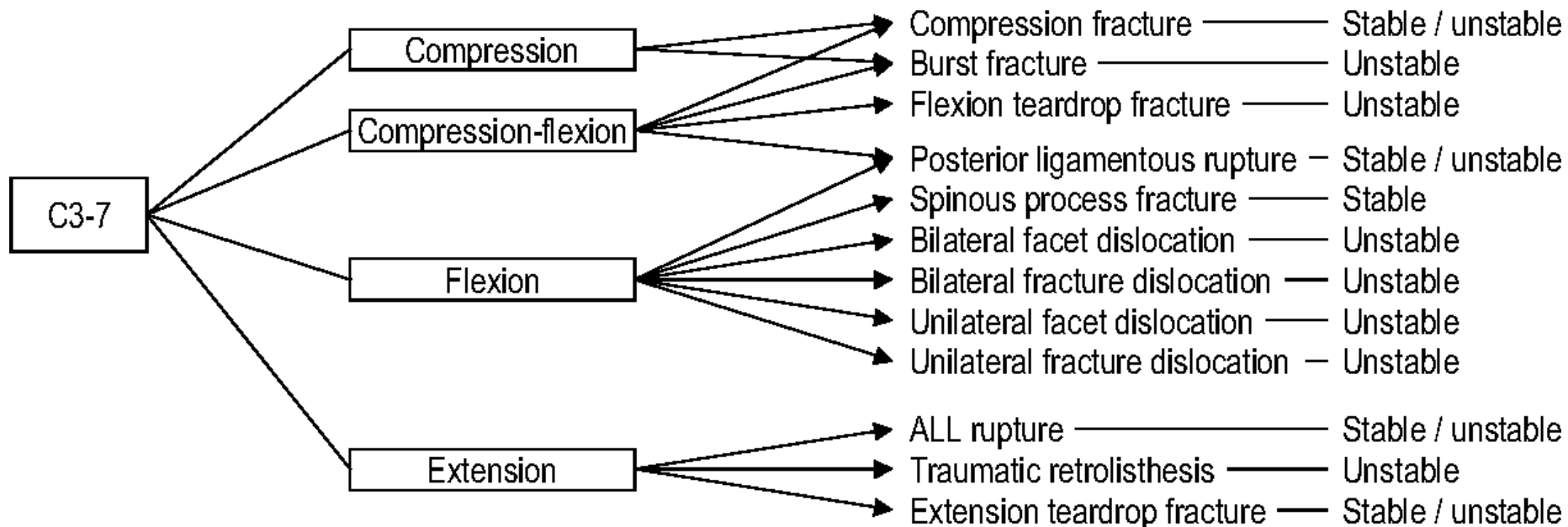


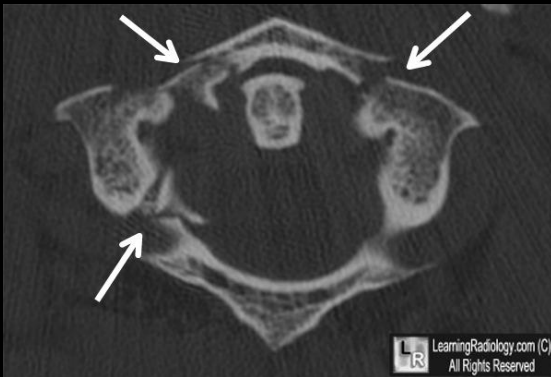
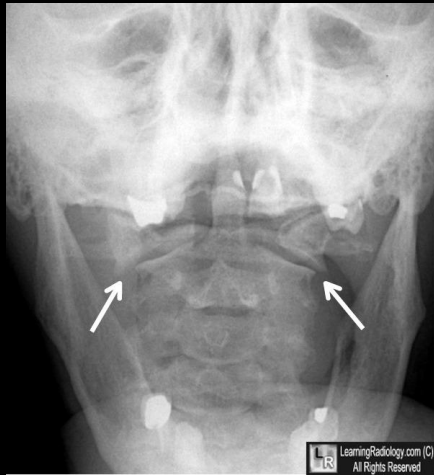
Omurganın Travma Yerine Göre Sınıflandırılması

- Oksipito-servikal Bileşke (**Oksiput-C1**)
- Aksiyel servikal Bölge (**C1-C2**)
- Subaksiyel Bölge (**C3-C7**)
- Torakolumbar Bölge (**T1-L5**)
- Sakral-Pelvik Bölge



Jefferson Bit Off A Hangman's Thumb!





**Atlanto-occipital
Dislocation /subluxation**

Hangman

Jefferson

Odontoid kırığı

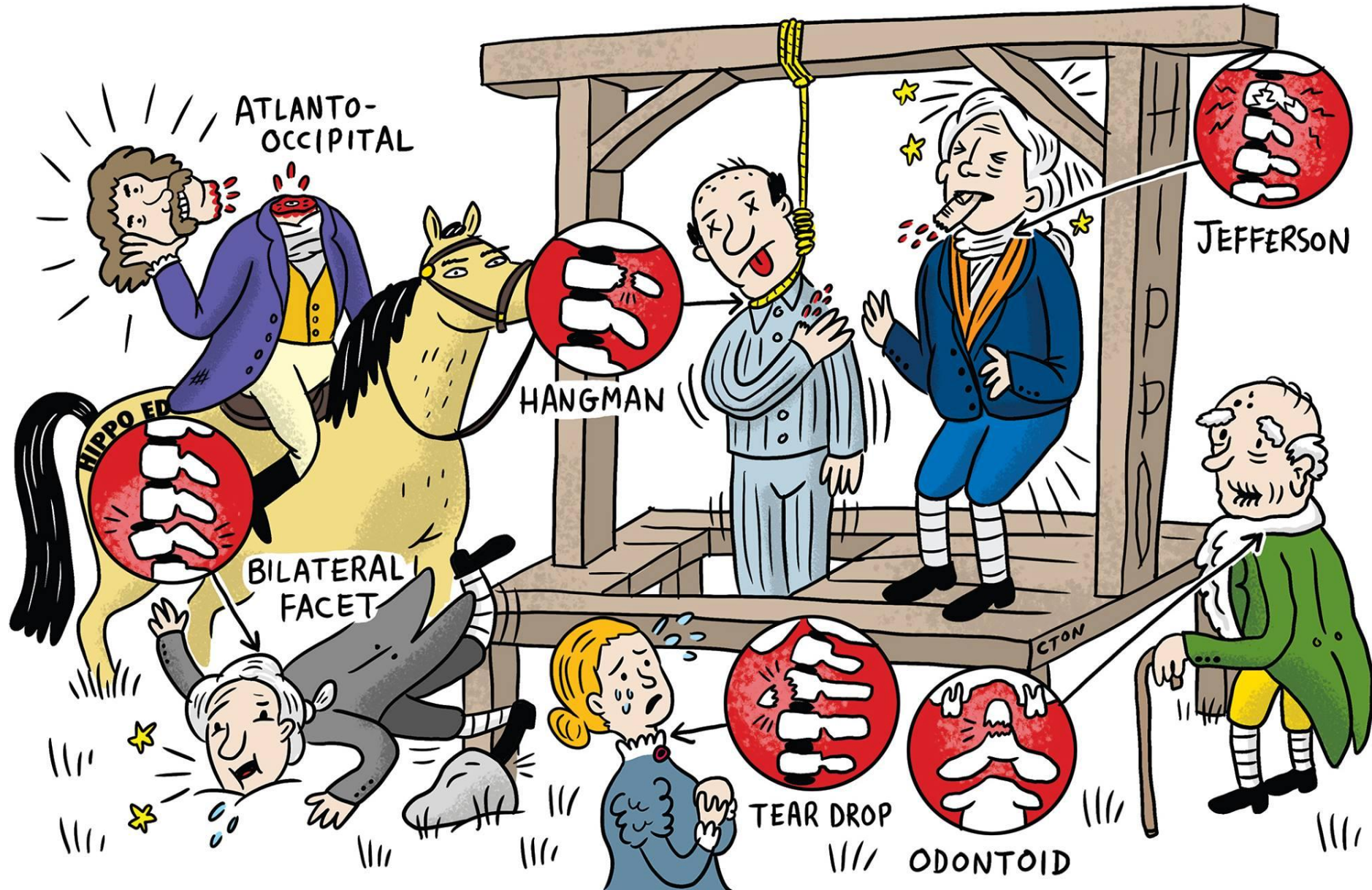
Jefferson Bit Off A Hangman's Thumb!



Bilateral Locked Facets

Teardrop

JEFFERSON BIT OFF A HANGMAN'S THUMB



Servikal subaksiyel (C3-C7) + TL omurga travmalarında Instabilite

INSTABİLİTE KRİTERLERİ

%50↑

COKME

C:11°↑/TL:25°↑

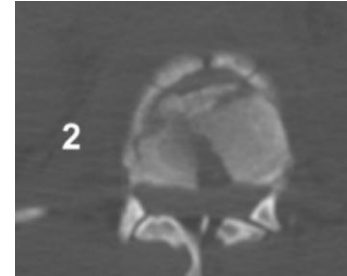
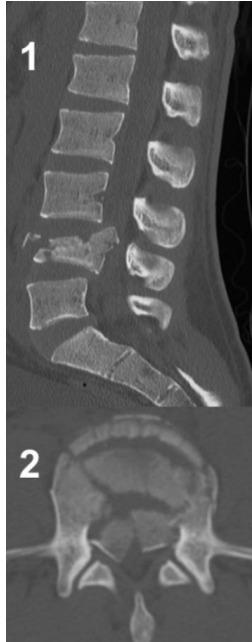
SKDA

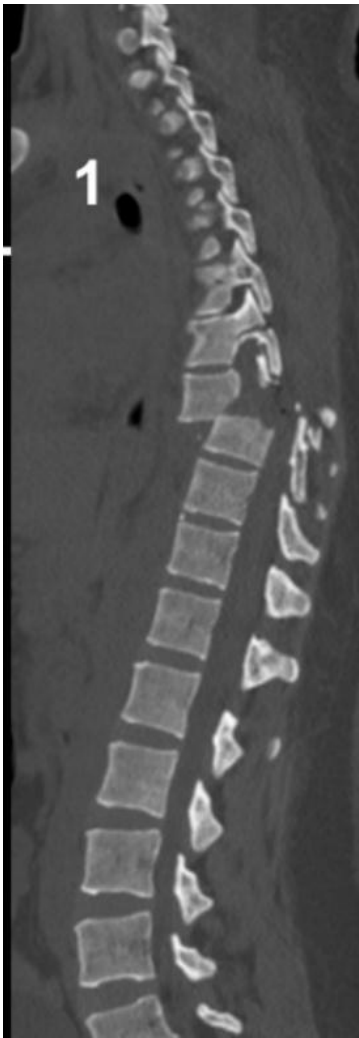
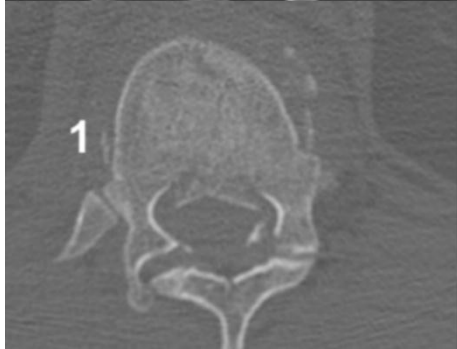
%50↓

KANAL ÇAPI

DİZİLİM BOZULMUŞ MU?

PLC YIRTICI VAR MI





Spinal Travmada Temel Tedavi Anlayışı

- Sekonder hücre hasarını engellemek
- Stabiliteyi sağlamak
 - DIŞ ORTEZ –**İMMOBİLİZASYON**
 - **C**ERRAHİ = **D**EKOMPRESYON+ KEMİK GREFT **F**ÜZYON + **S**TABİLİZASYON
- SERVİKAL BÖLGEDE **C0-C1-C2 TRAVMALARINA DİKKAT!**

SON SÖZ!

- Kraniyospinal travmada sorun nerede?
 - SORUN TRAVMALIDA DEĞİL TRAVMAYI **YÖNETENLERİN BİLGİSİZLİĞİNDE** VE/VEYA **TEKNİK ORTAM YETERSİZLİĞİNDE!**
 - ÇÖZÜM : **DEVAMLİ EĞİTİM...**

If you can't explain it **simply**, you
don't understand it well enough.

-Albert Einstein

