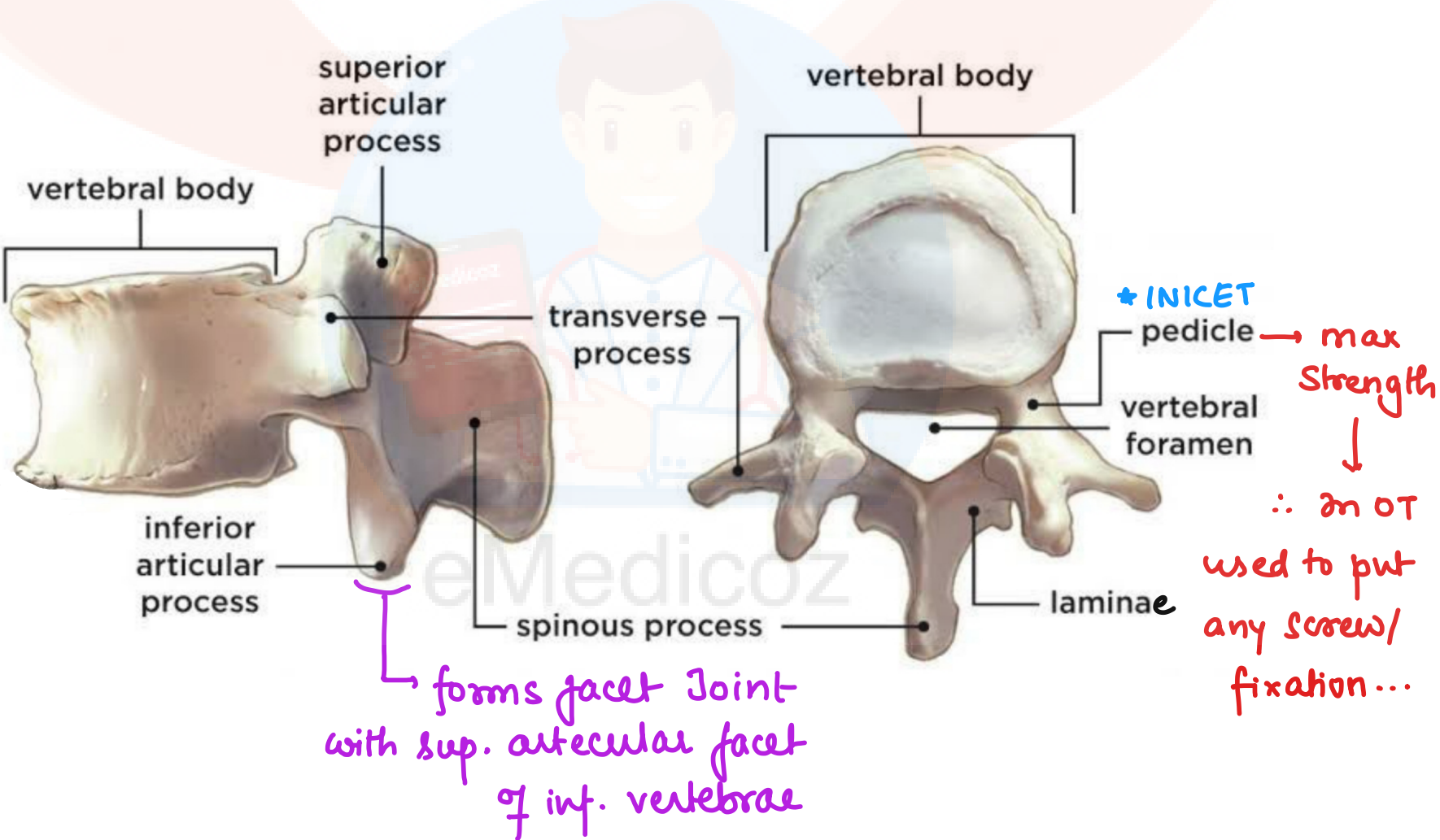
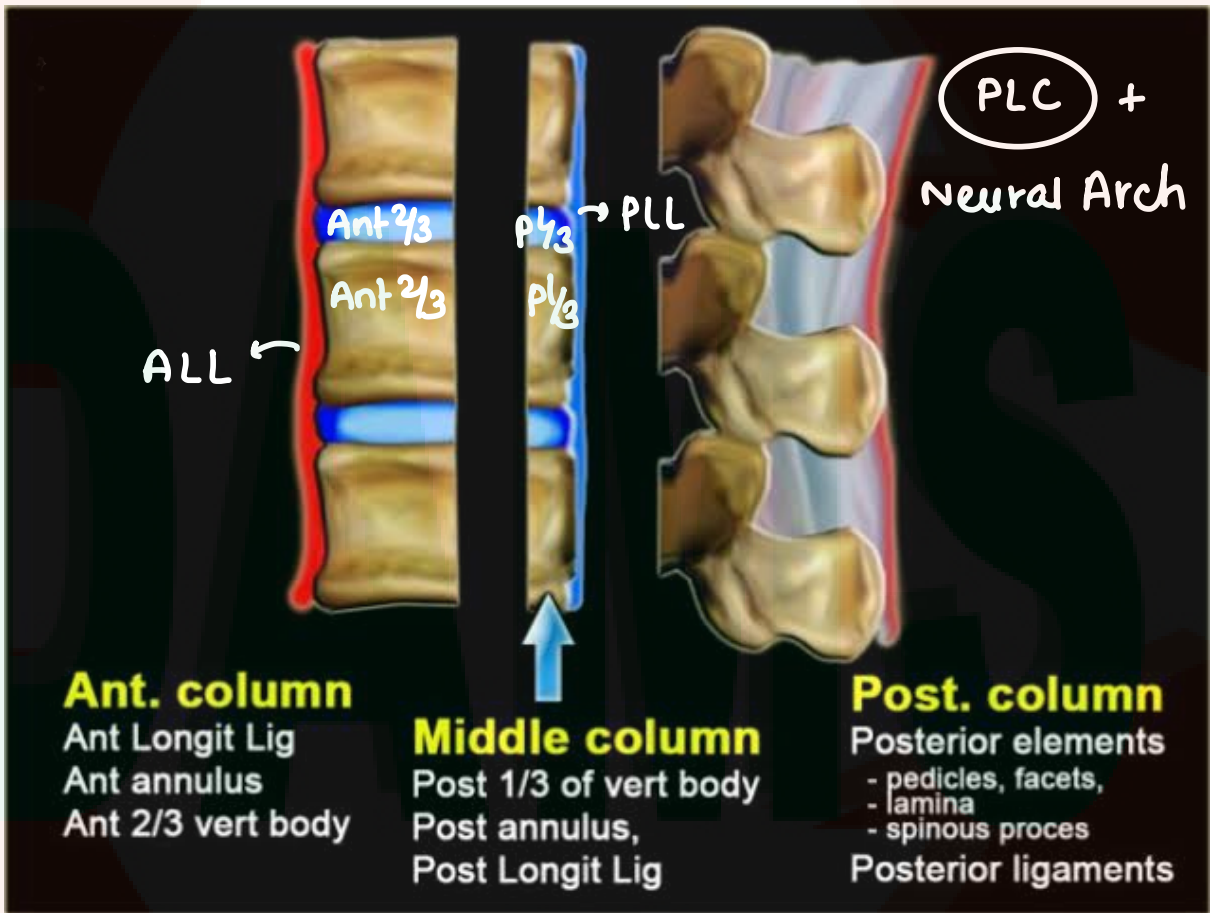
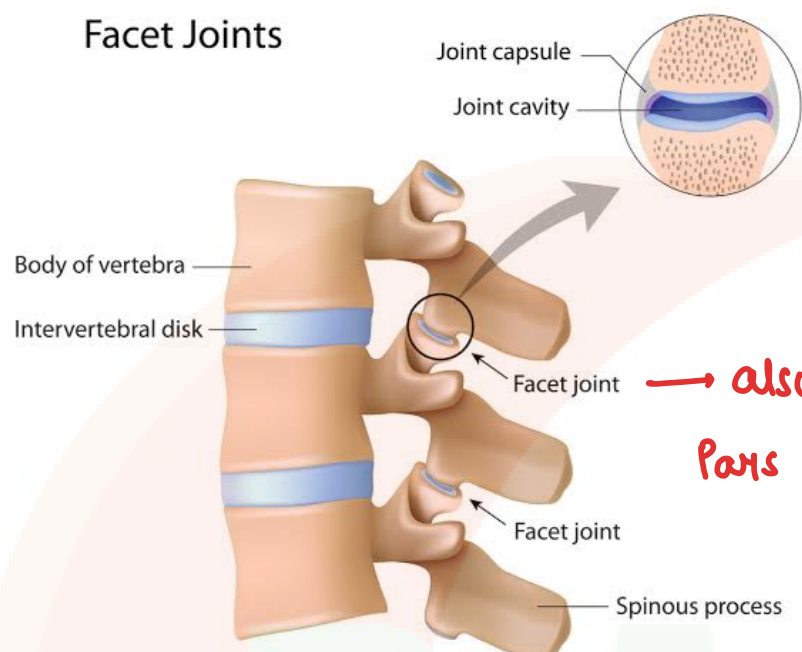


SPINE : ANATOMY

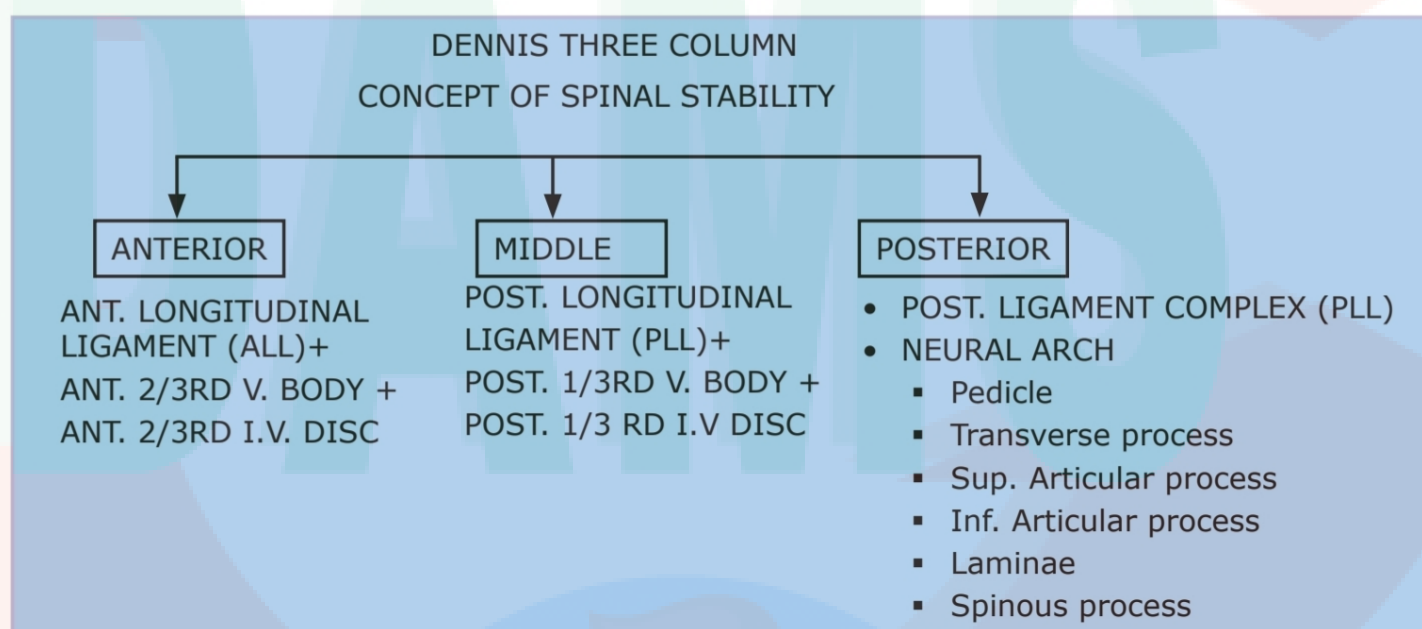
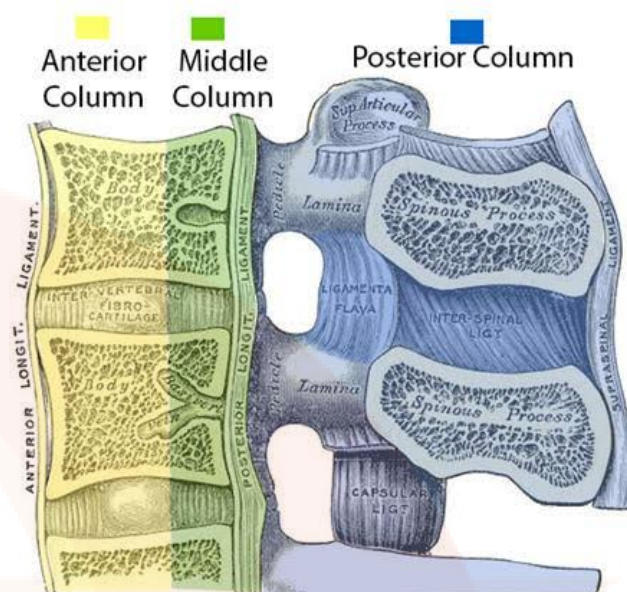
→ Spine stability :-

↳ Best Conceptualised as DENIS THREE COLUMNS OF SPINE





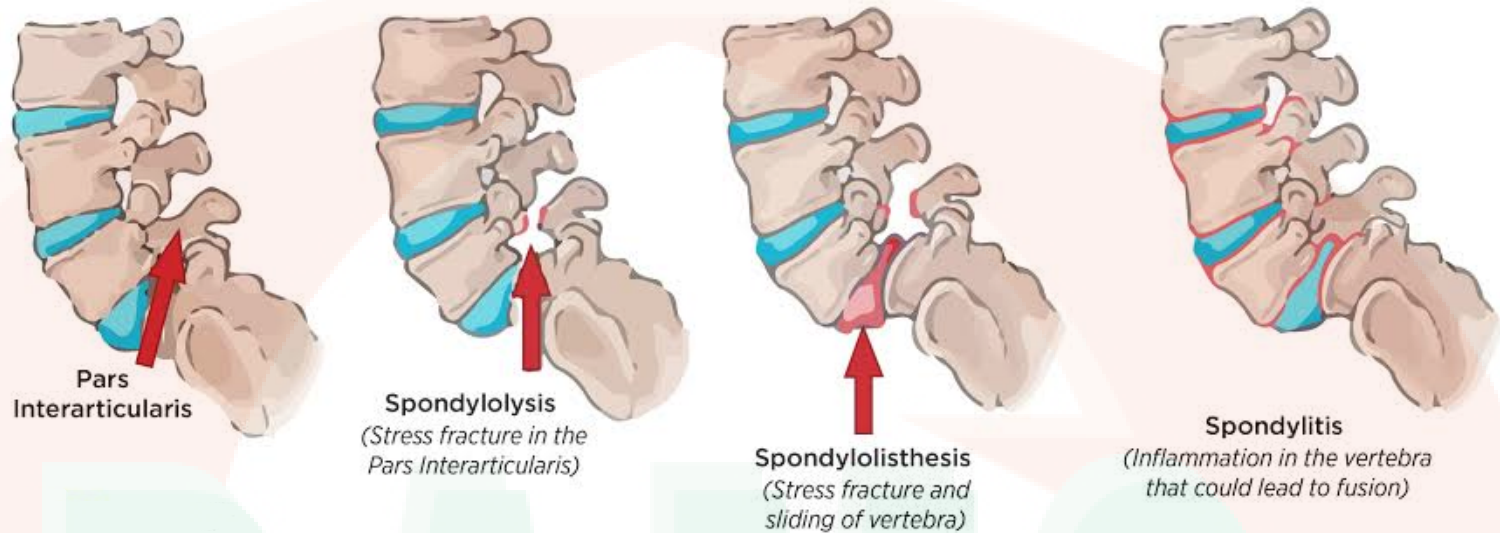
→ also Cla
Pars Interarticularis
(PIA)



Q. Which of the following is not true about Denis Three Column Concept of Spinal Stability?

- a. Anterior Column Consists of Anterior one third of the Vertebral Body **T**
- b. Posterior Column consists of Posterior Ligament Complex **T**
- c. Middle Column consists of the Posterior Longitudinal Ligament **T**
- ☒ d. Middle Column consists of Posterior Two third of Vertebral Body

TERMS USED IN SPINE



→ Spondylitis :-

↳ Paraspinal muscle spasm / stiffness

→ Spondylolysis :-

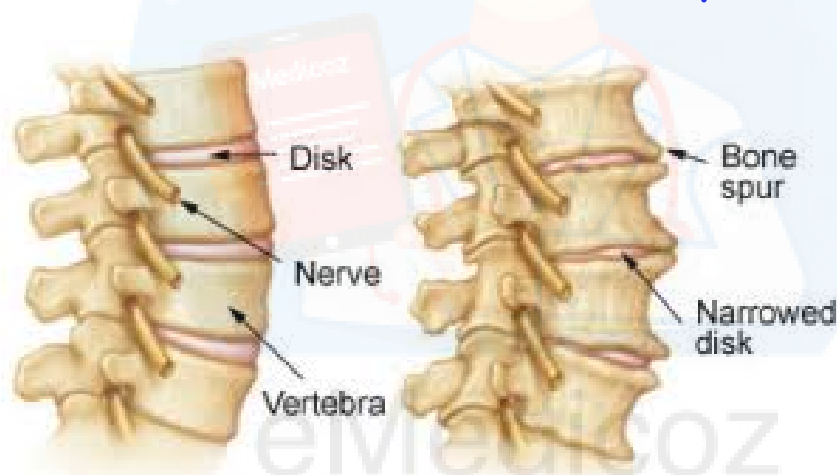
↳ Break in pars interarticularis / pedicle / facet Joint
 ↓ Progress to

→ Spondylolisthesis :-

↳ Slippage of one v-body over another v-body

→ Spondylosis :-

↳ Degenerative changes in spine.



ONE LINERS

- MC mode of spinal Trauma
 - Road Traffic Accident (developed nations) (over all M/c)
 - Fall from height (developing nations)
- MC mechanism of spinal Trauma: Flexion distraction > Flexion
- Worst mechanism of spinal Trauma: Translation > Flexion Rotation
- Most constant number of vertebrae: Cervical spine (7)
- Most variable number of vertebrae: Coccygeal spine
- MC level of SPINAL TRAUMA

SPINAL FRACTURE	- cervical spine
SPINAL CORD INJURIES	- lower thoracic spine
SKULL BONE	- cervical spine
FACIAL BONE	- Temporal bone
MANDIBLE	- Nasal > Zygomatic
	- Neck of Condyle
- SPINAL CANAL IS WIDEST @ level of C2 (Axis)



eMedicoz

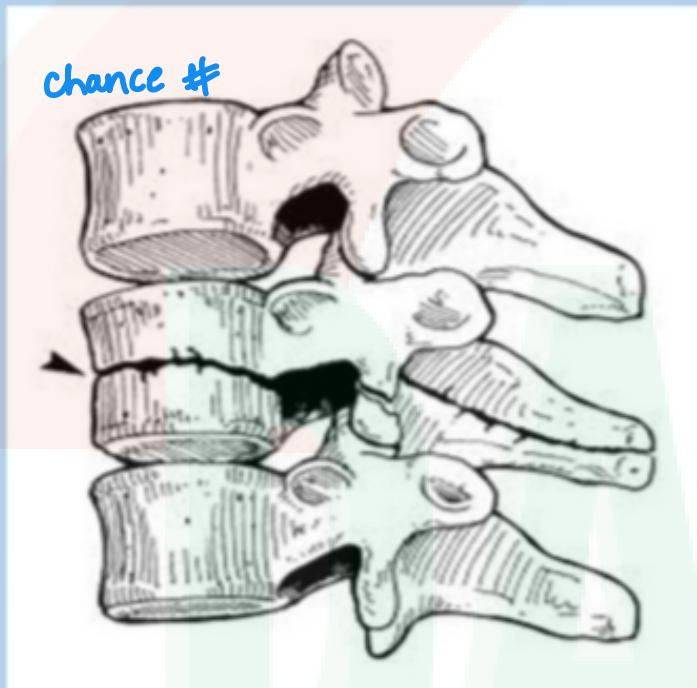
SPINAL FRACTURES

1. JEFFERSON'S # BURST # OF RING OF (1 ATLAS) involving both the arches

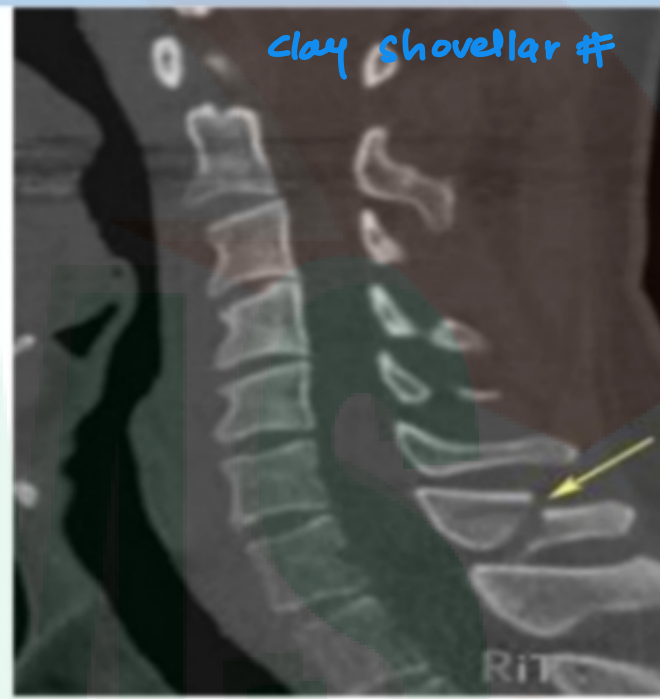
- due to FFH (fall from height)
- 80-85% pts. Don't develop any neurological deficit
- Mx: *Hard cervical collar / Philadelphia collar*



Chance #



Clay shoveller #



odontoid process



2. HANGMAN'S # Mechanism: HYPEREXTENSION followed by DISTRACTION SPONDYLOLYSIS OF C2 (AXIS C SPONDYLOLISTHESIS OF C2 OVER C3 C- C2-C3 I.V. Disc DISRUPTION (Note: C1 & C2 don't have INTERVENING I.V. Disc & are joined by ODONTOID PROCESS/DENS)

3. CHANCE # / SEAT BELT INJURY / JACK KNIFE INJURY

- HORIZONTAL # line traversing across all three columns of spine including spinal cord
- Mech = *flexion → Distraction → Rotation*
- 50% pts have concomitant intra abdominal injury

4. CLAY SHOVELLERS # OF TIP OF SPINOUS PROCESS OF C7 > T1 due to violent lateral rotation of neck

5. UNDERTAKER'S

- Post mortem finding
- Mechanism: HYPEREXTENSION → FLEXION
- Due to careless handling of dead body by undertakers (Dislocation of lower cx spine C C6-C7 I.V disc disruption)

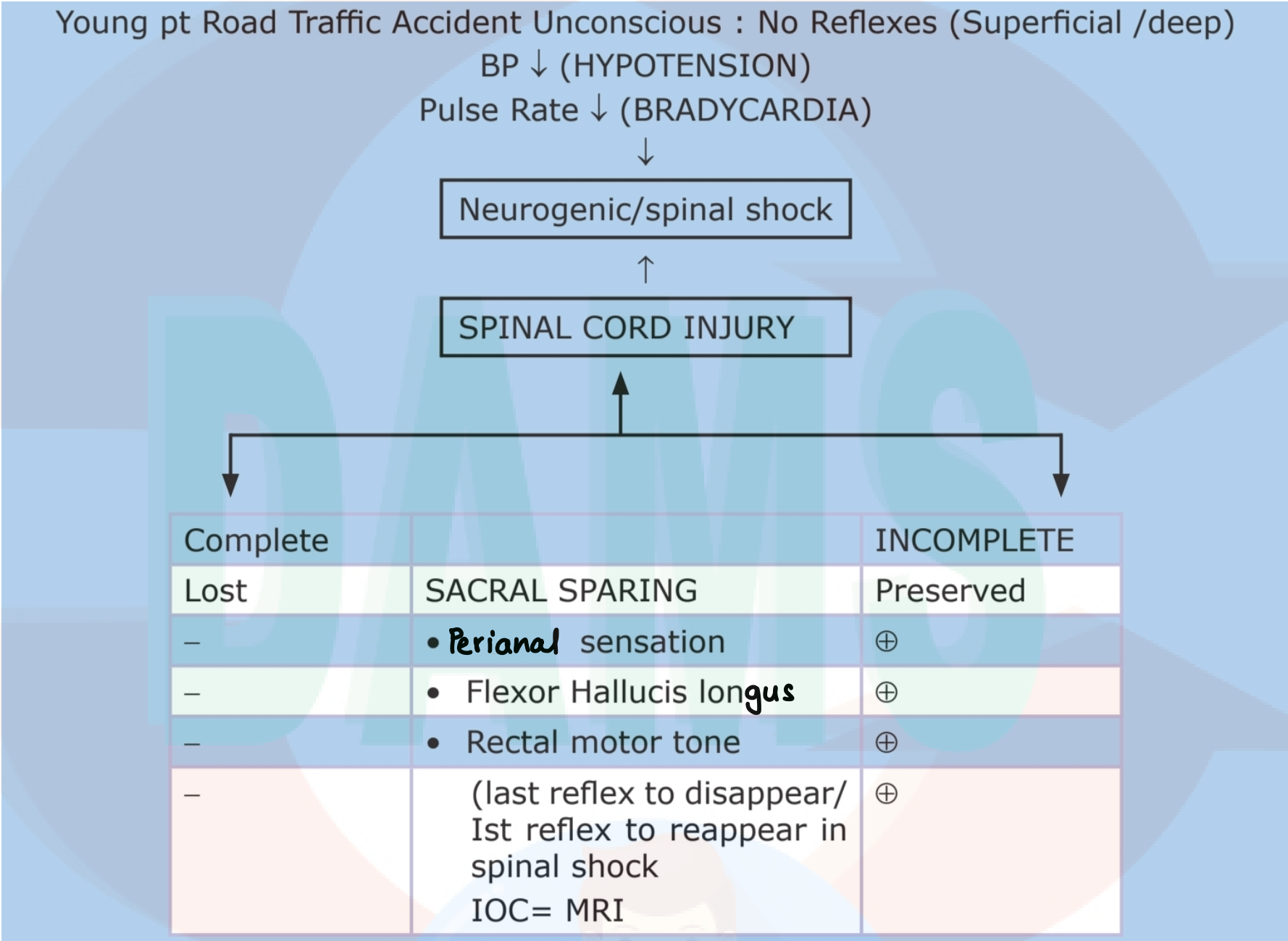
6. SCIWORA

- Children
- X-Rays = ⊕
- Upper cx spine

Q. Which of the following vertebral fractures involves disruption of ligaments of anterior, middle and posterior columns

↳ Ans : *Chance #*

SPINAL CORD INJURY



• Bulbocavernosus Reflex :- (Anal wink)

