

Introduction to Head Trauma (part 2)

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Objectives

- EDH.
- SDH
- ICH, CONTUSIONS.
- INTRA VENTRICULAR HGE
- DEPRESSED FRACTURES.
- SEQUELS OF HEAD INJURY
- NOTES

Extradural hematoma

Definition blood between the dura and the skull

shape

Incidence: 1%, site

Source of bleeding (85% arterial, 15% venous or sinuous)

Pathology: hematoma

Presentation : classic , atypical presentations

Evaluation

CT scan high density biconvex shape adjacent to the skull

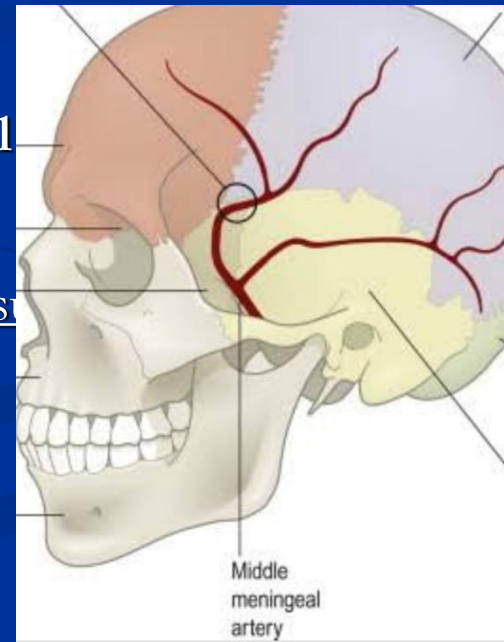
Treatment

conservative : indication, ?? Antiepileptic, ?? dehydrating meas

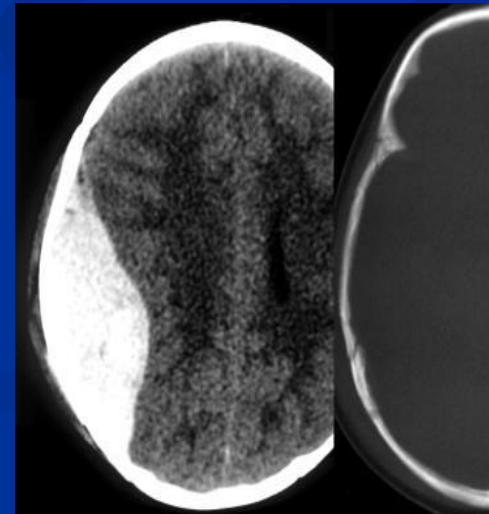
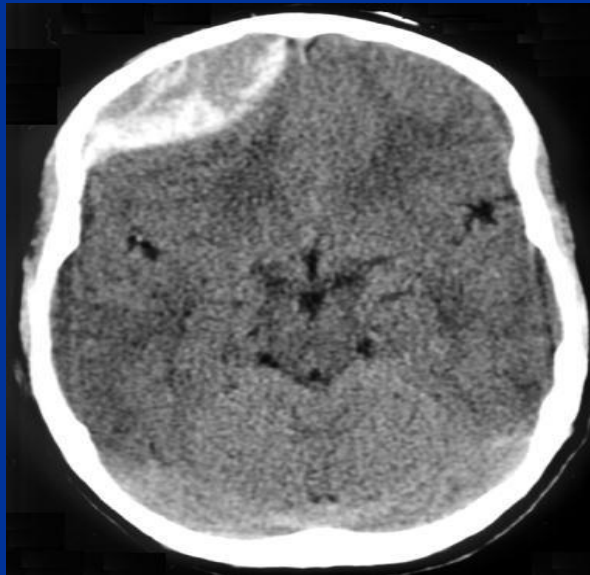
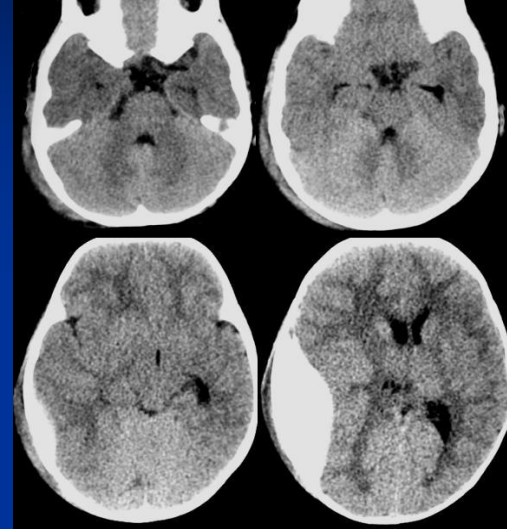
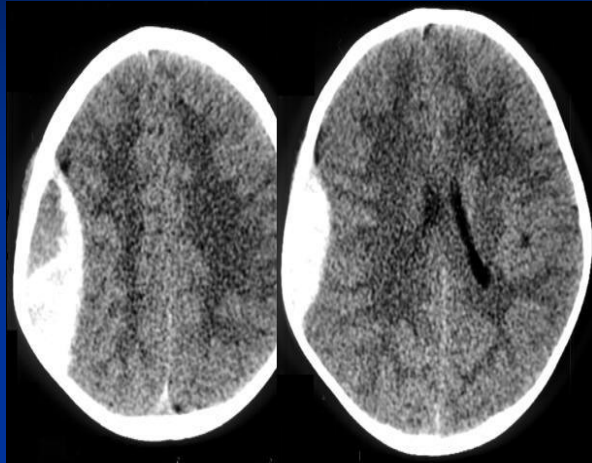
Surgical : indication, surgical objectives (craniotomy)

Posterior fossa extradural hematoma

Outcome



Extradural hematomas



Acute subdural hematoma

Definition blood between the dura and the brain.

Source of bleeding 1- Tearing of the bridging vein.

2- cortical vein injury.

3- brain laceration.

Pathology: Hematoma + edema

Presentation : classic ,atypical presentations

Evaluation: CT scan high density crescentic shape on cortical surface

Treatment

Medical : indication

Surgical : indication, surgical objectives (craniotomy or craniectomy)

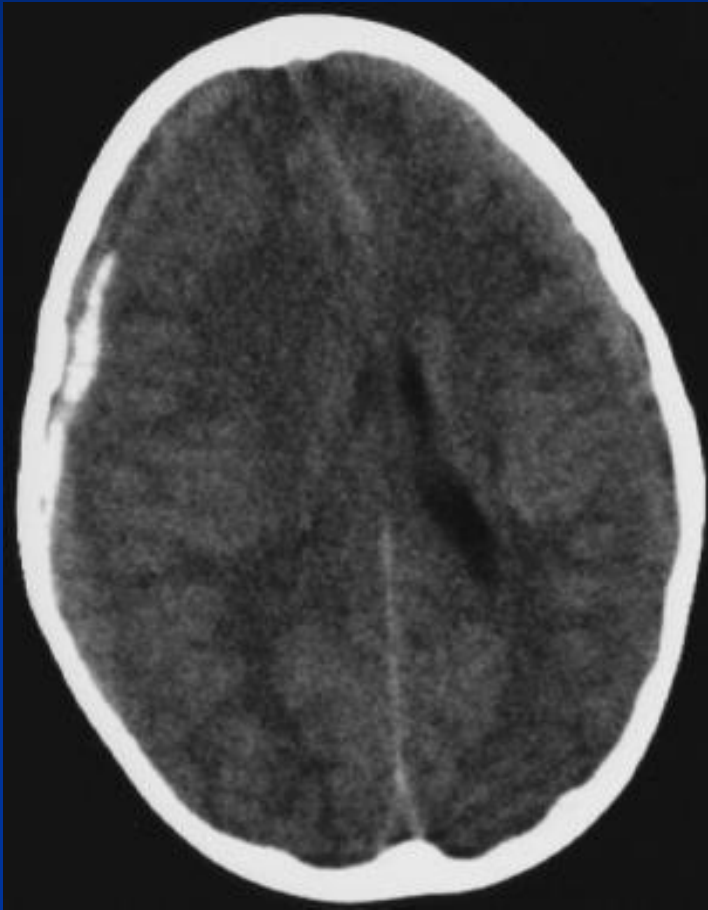
Posterior fossa subdural hematoma

Outcome: Morbidity and mortality

Infantile acute subdural hematoma

NB: Classification of subdural hematoma in general: acute, SA or chronic

Acute subdural hematomas



Chronic subdural hematoma

❖ Definition

❖ Incidence: Common in elderly and alcoholics, children with brain atrophy.

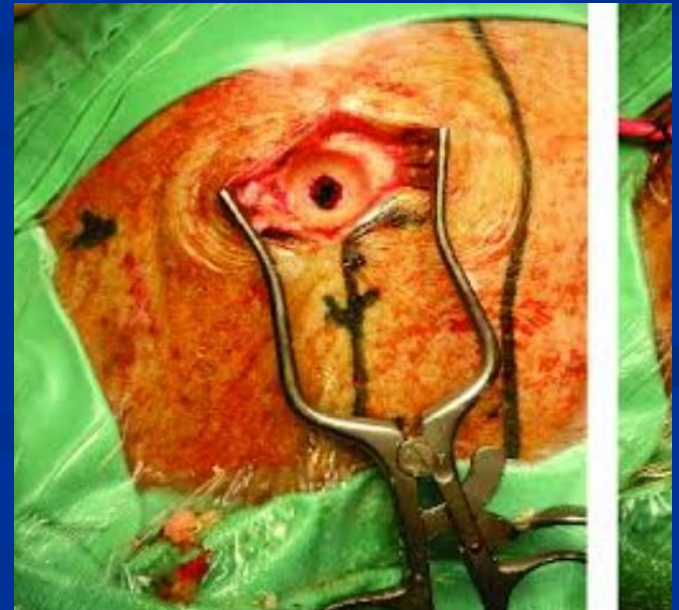
❖ Pathophysiology

❖ Presentation

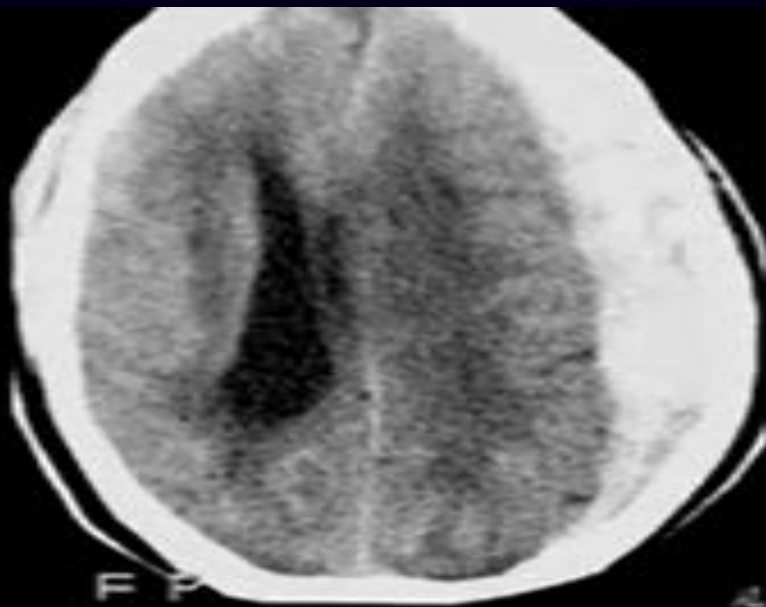
❖ Treatment

❖ Surgical considerations

❖ Outcome

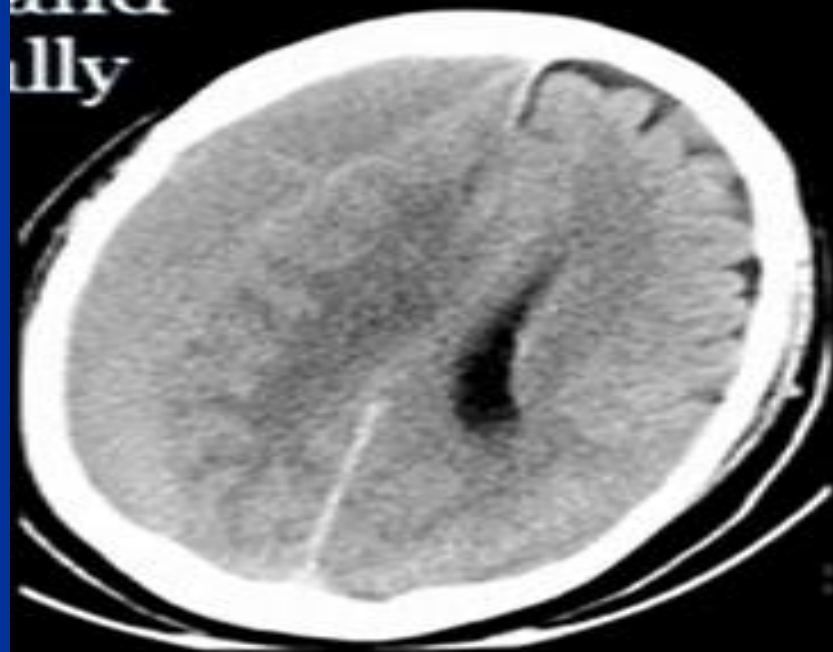


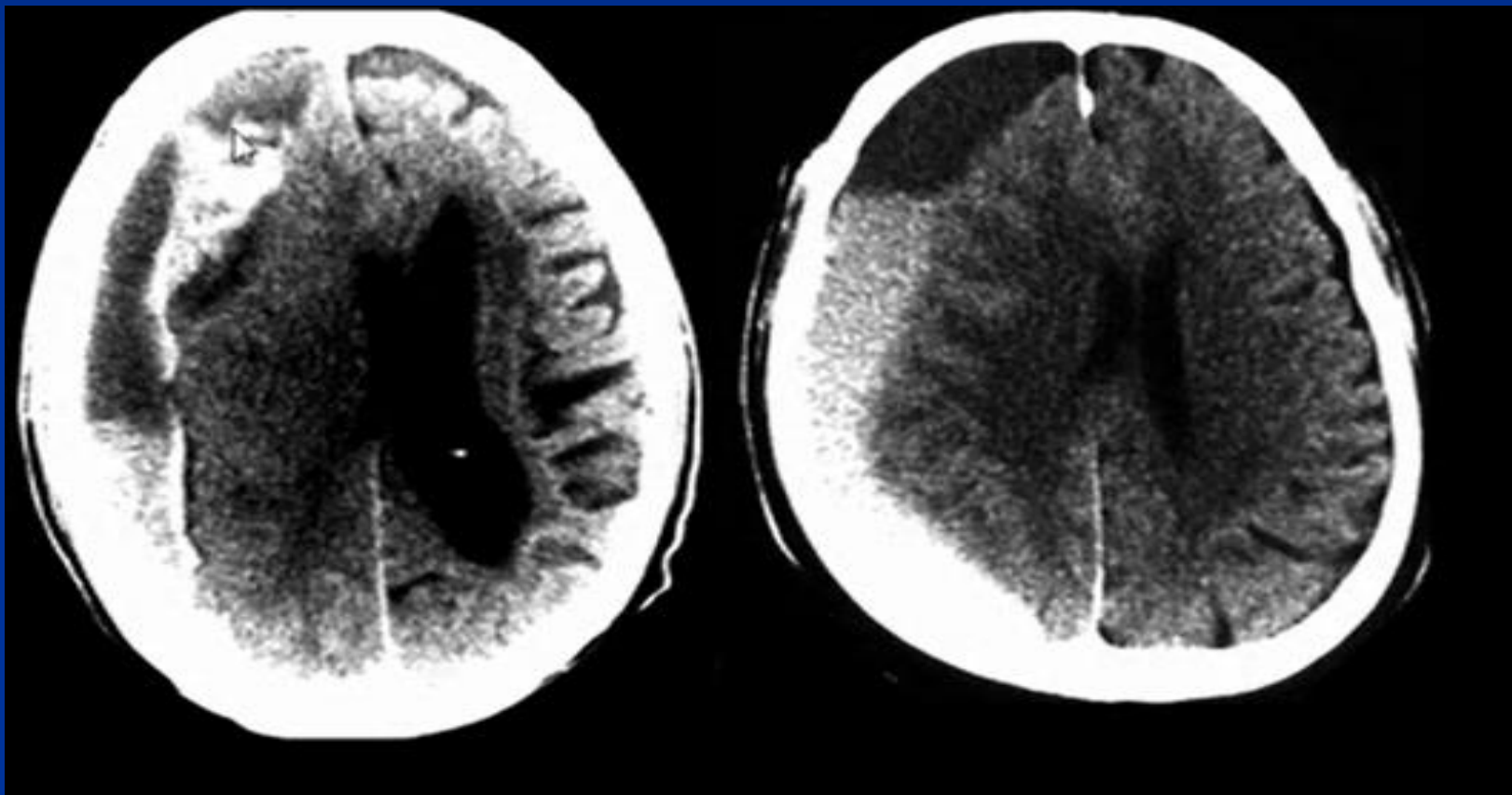
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Subacute

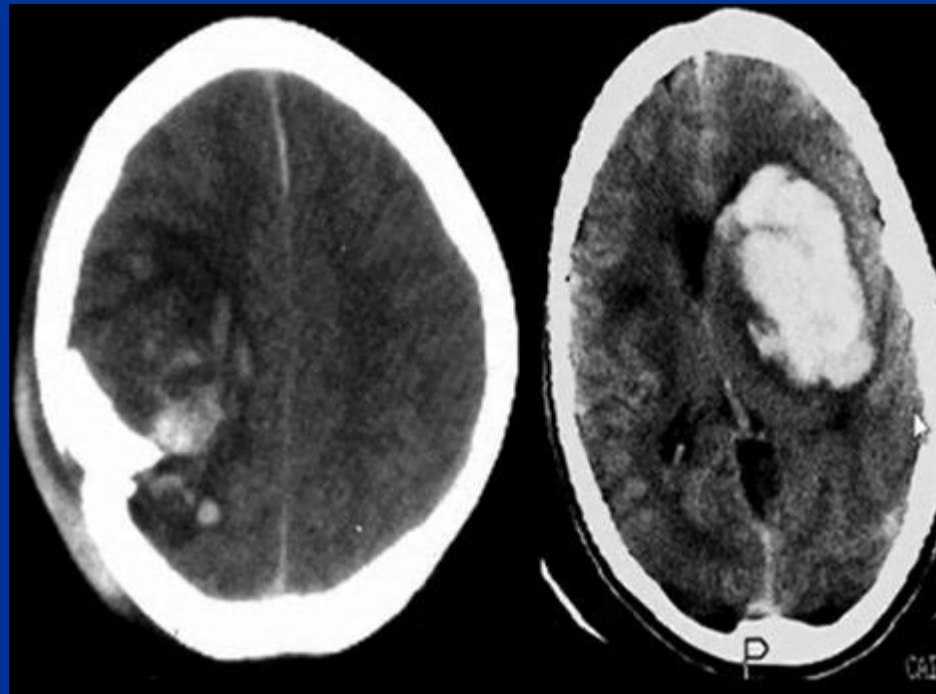
Chronic





Intra cerebral hematoma and Hemorrhagic contusion

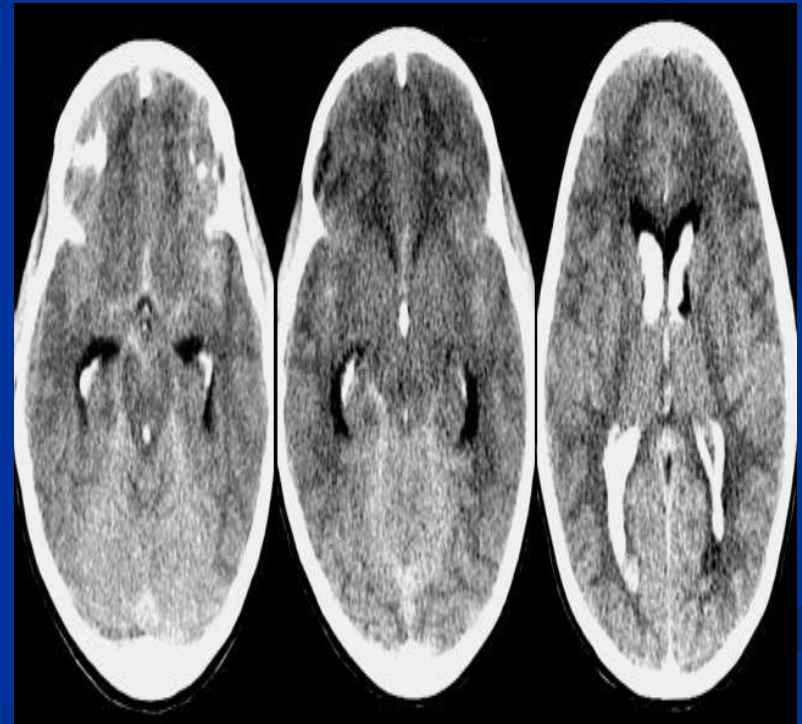
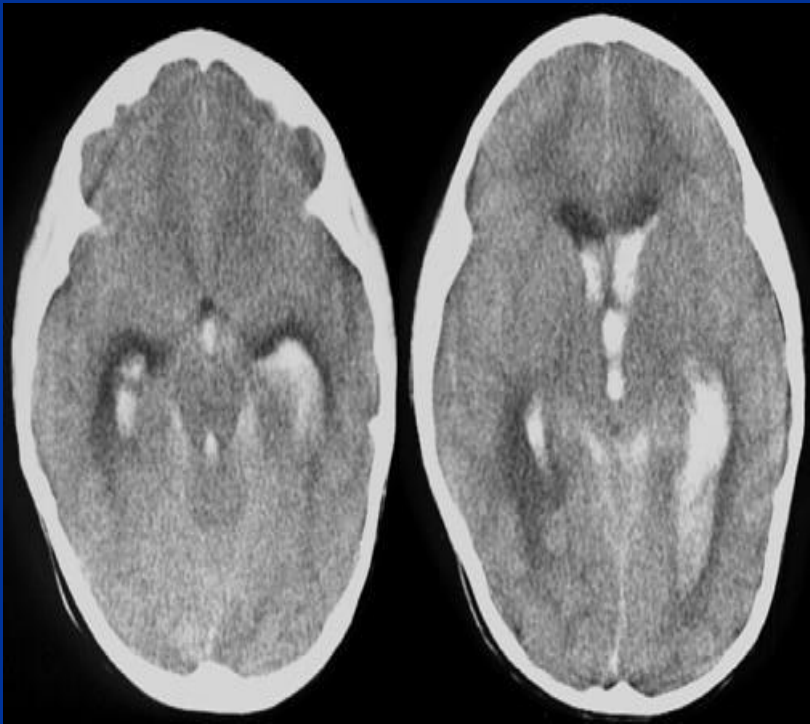
- Contusions are small hematomas: **less than 1 cm**



Intraventricular hemorrhage

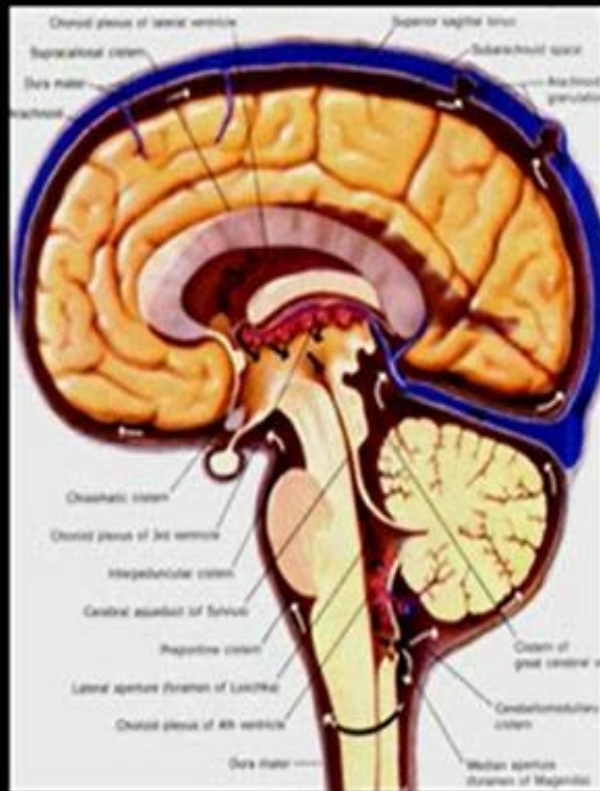
■ How to manage?

Conservative or surgical

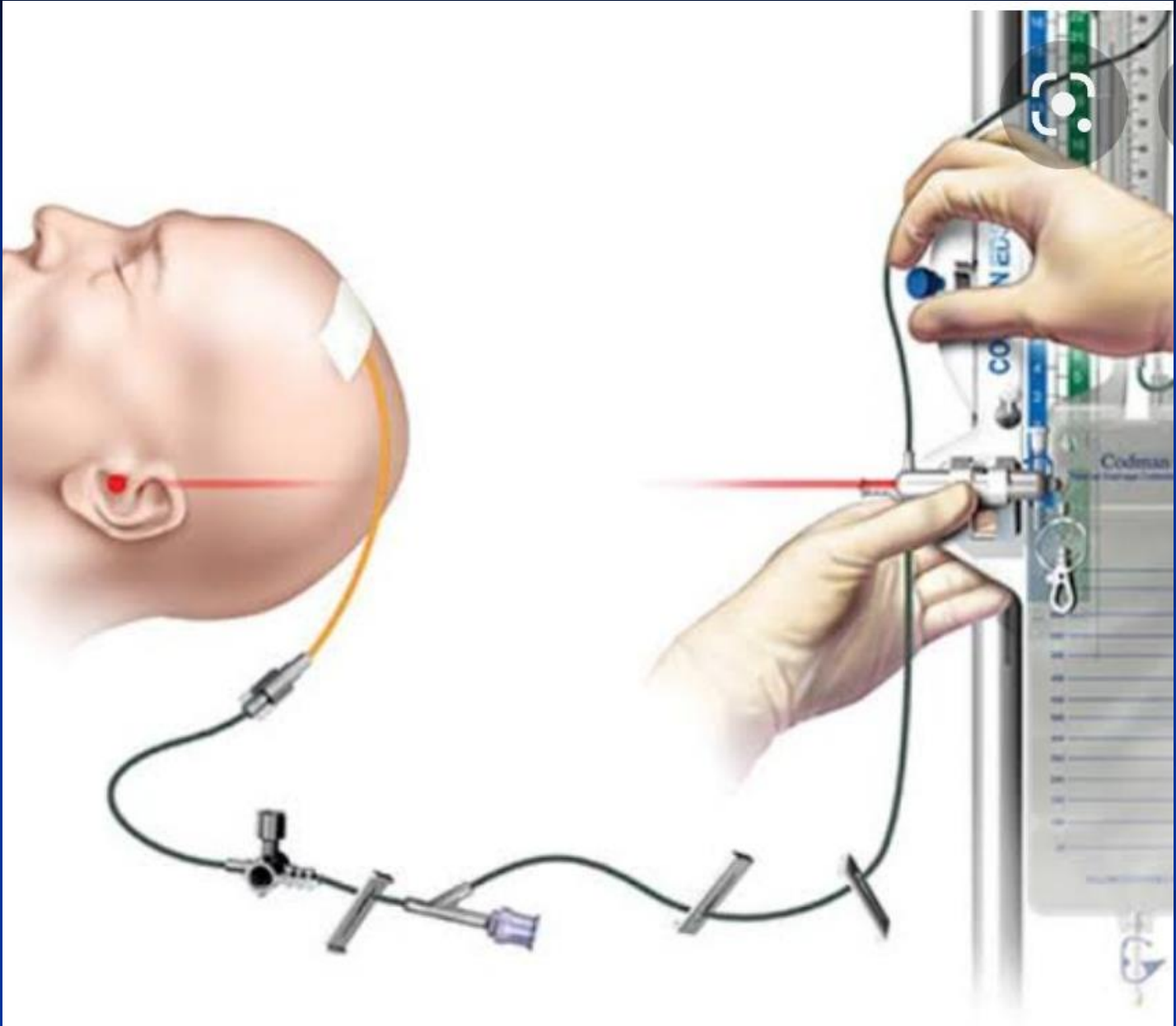


CSF production and flow

- ◆ CSF is produced by Choroid plexus in the lateral ventricles
- ◆ From the ventricles → basal cisterns → arachnoid velli → venous system
- ◆ 500 ML/ day



- ◆ Arachnoid velli are parasagittal structures drain CSF in the superior Sagittal sinus.



Skull fractures

- Fissure fracture: linear
- Depressed fracture

Definition

Types: simple and compound

indications of surgery: compound,
cosmetic, compressing

How to manage?

Unlocking and repair or removal and cranioplasty at least after 6m

Sequelae of head injury

- Post concussion syndrome
- Post traumatic seizures
- Post traumatic hydrocephalus
- CSF fistula
- Cranial nerve injury
- Locked – in syndrome
- Post traumatic vascular complication
- Vegetative life

Thanks

BEST WISHES