

# ***VENTRICULOSCOPY IN NEUROSURGERY***

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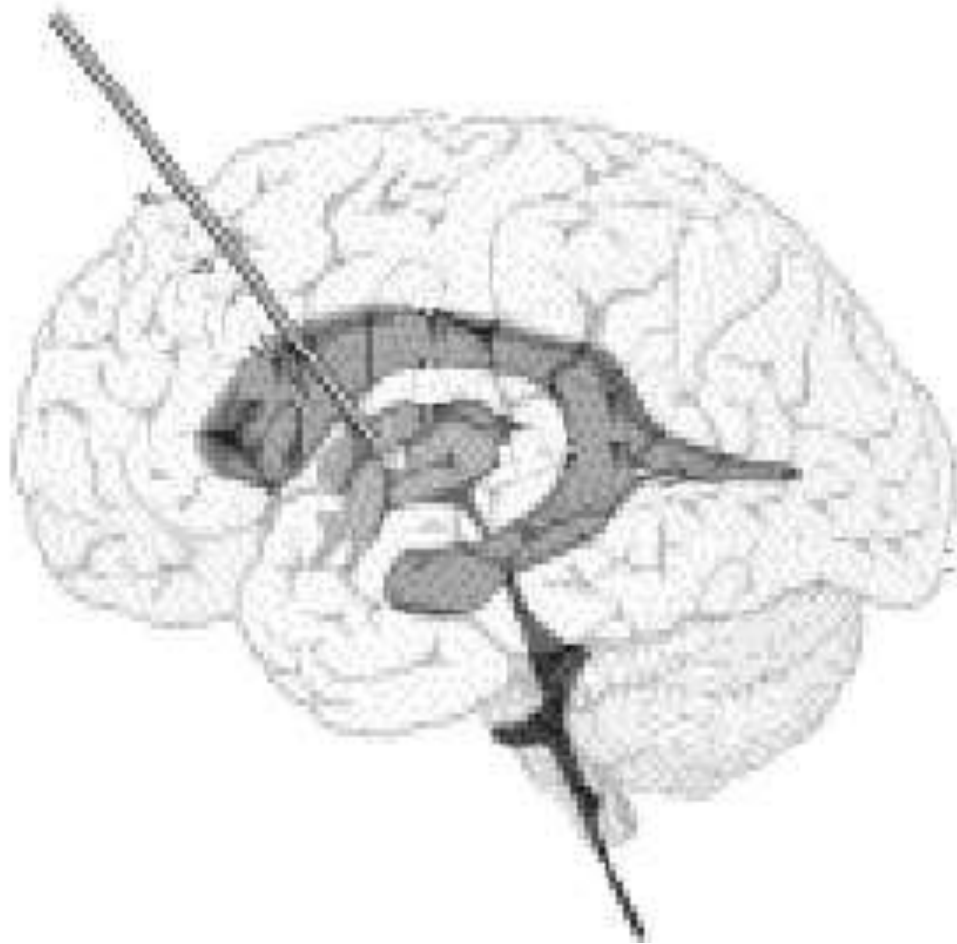
# Endoneurosurgery

- A new and emerging field and represents the use of the endoscope as the sole and only tool used to visualize the entire neural axis

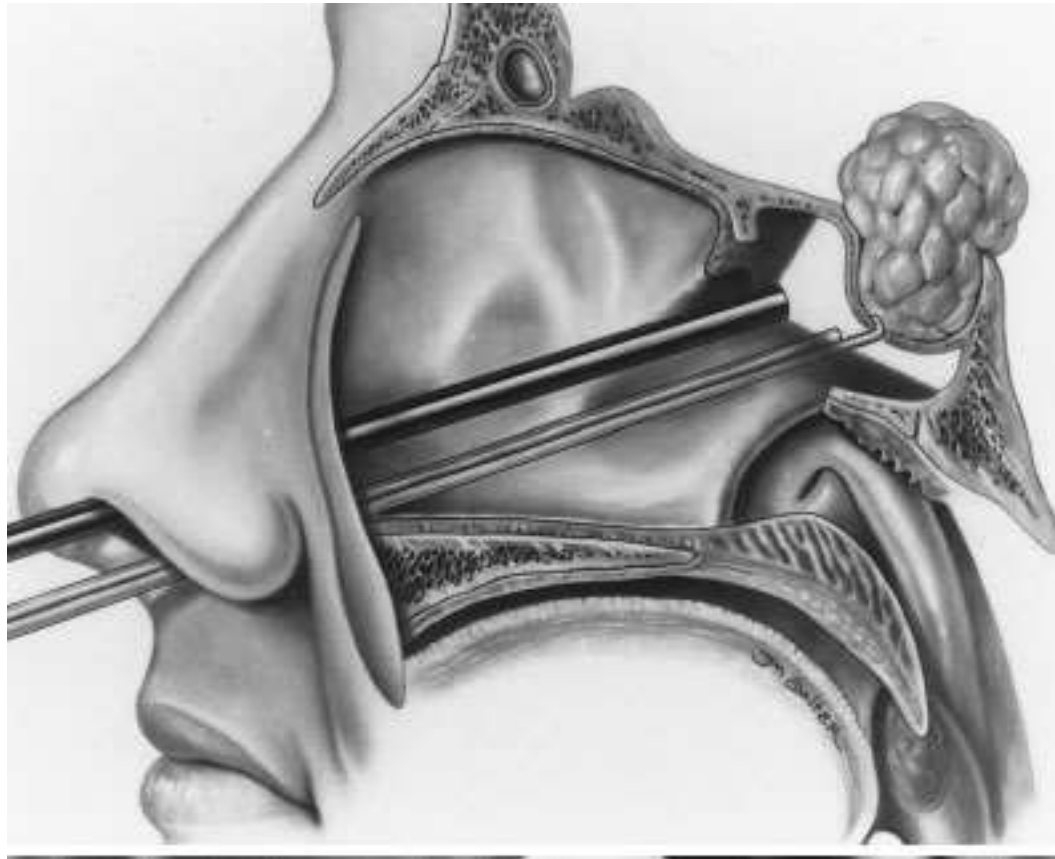
# *Neuroendoscopic Approaches*

- Transcranial Transventricular
- Transnasal/Transoral Skullbase Endoscopy
- Spinal Endoscopy

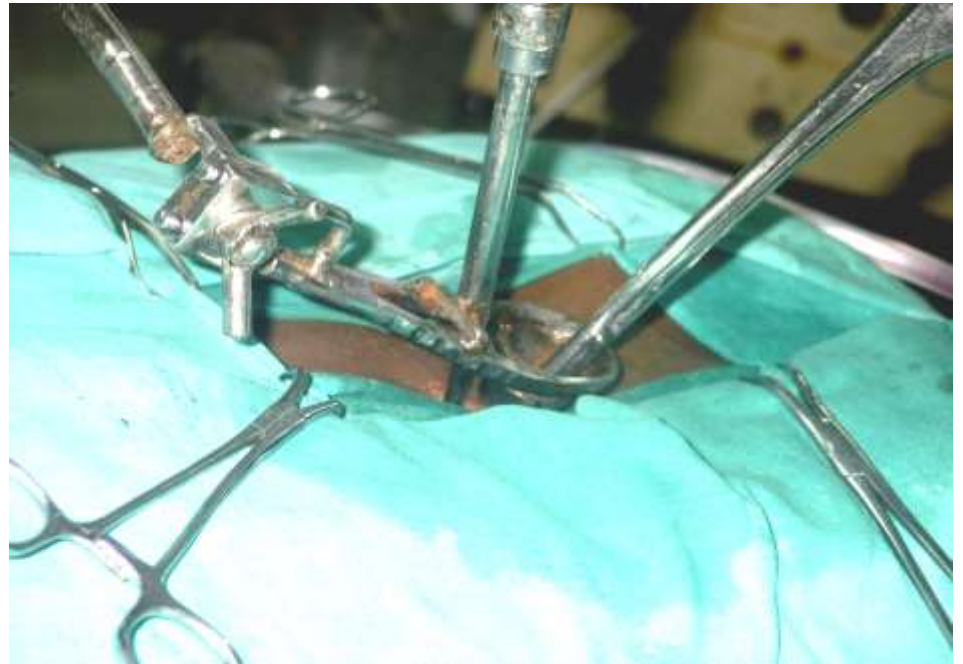
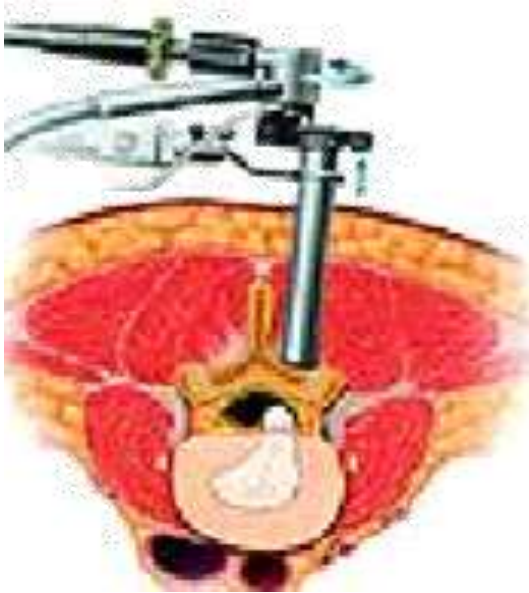
# Transcranial Transventricular



# Transnasal/Transoral Skullbase Endoscopy



# Spinal Endoscopy

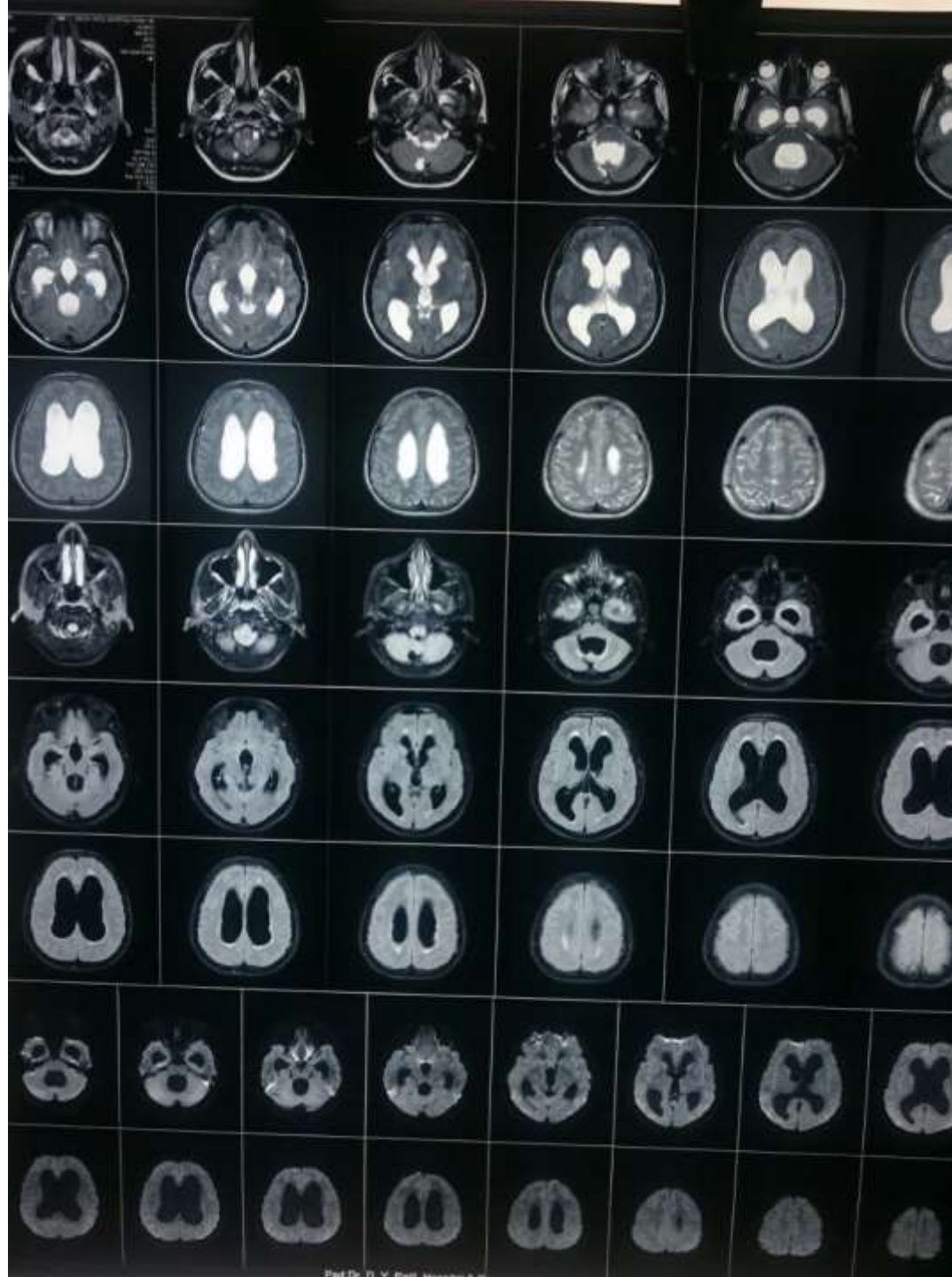


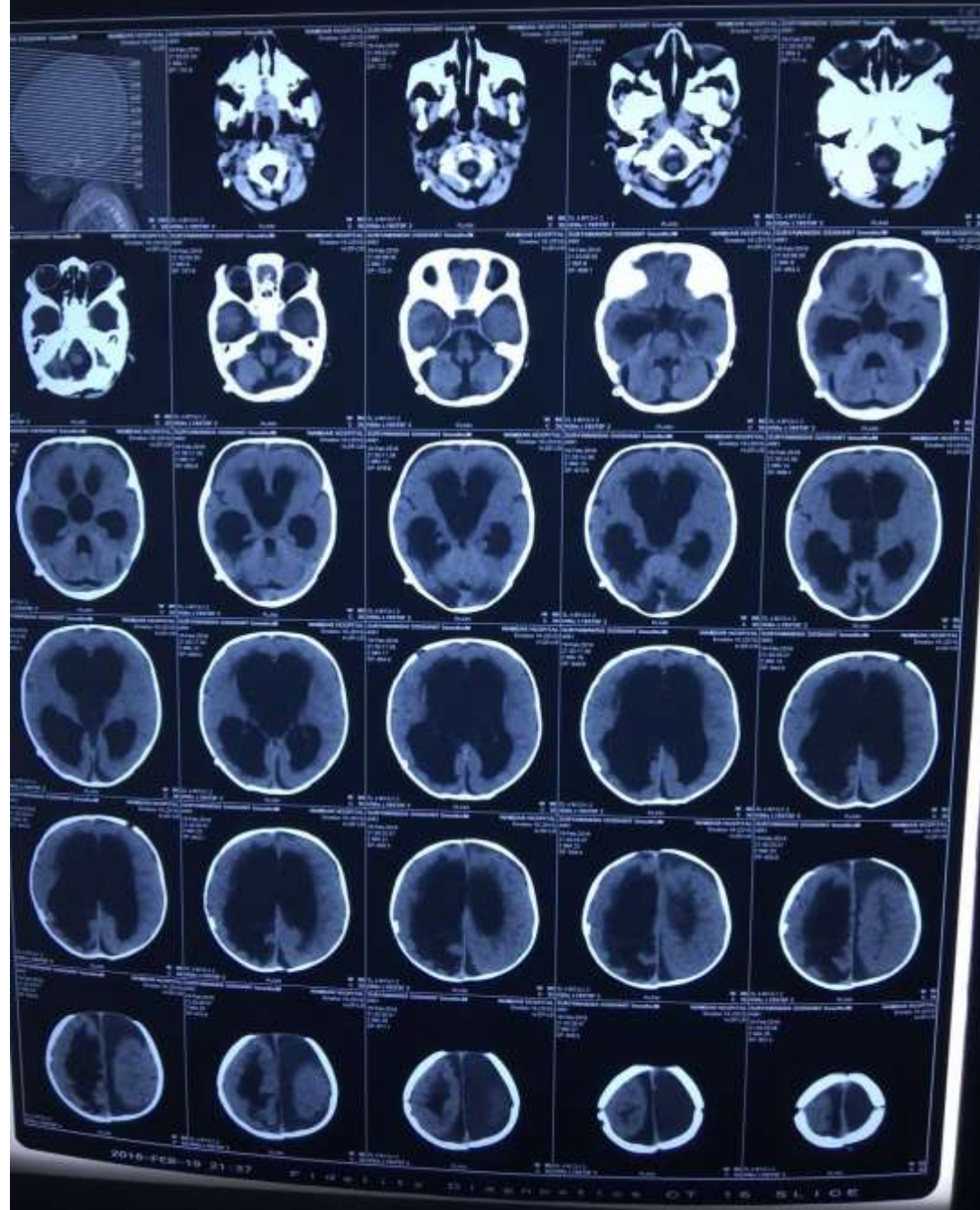
# Transcranial Transventricular Procedures

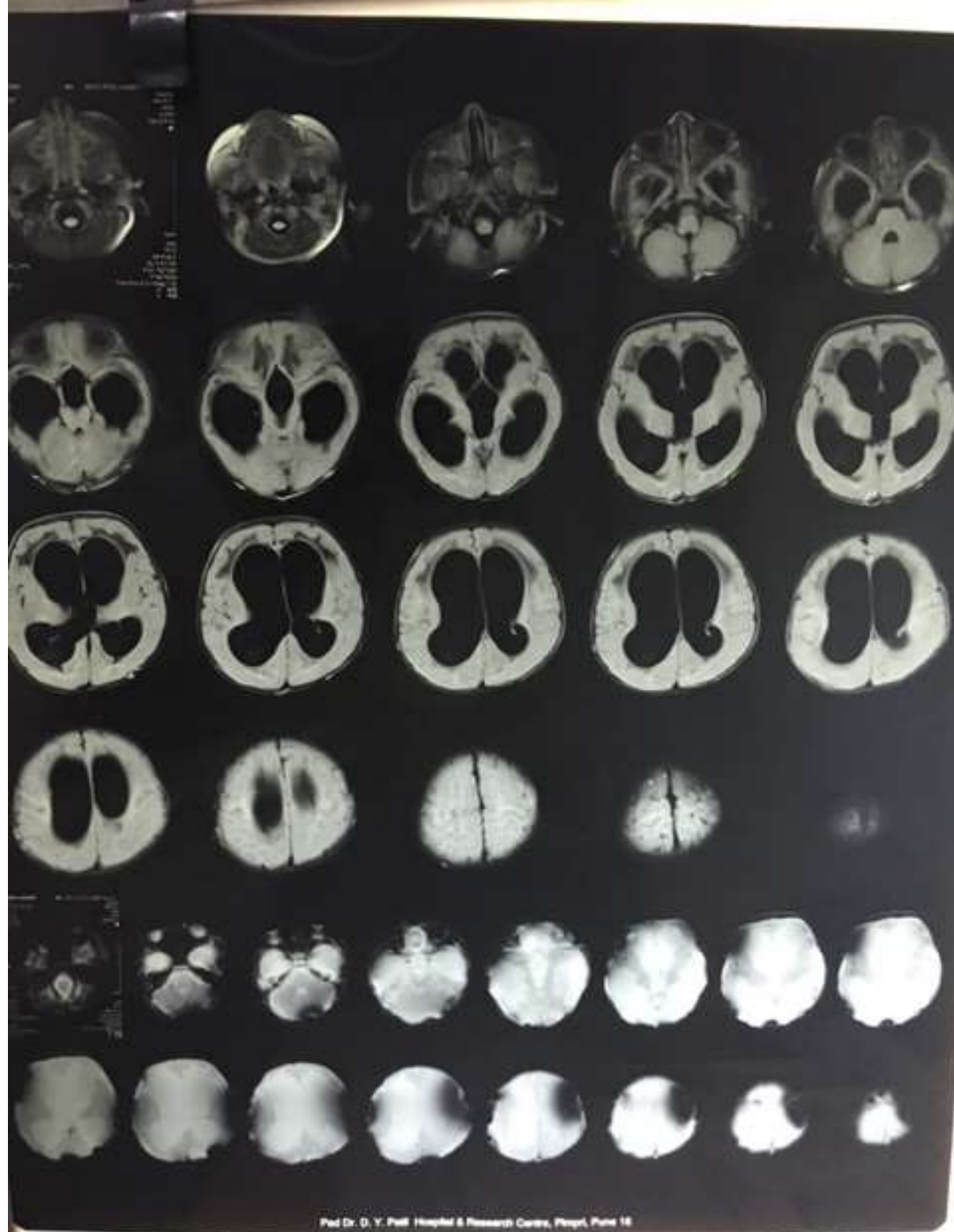
- Fenestration
  - Endoscopic Third Ventriculostomy (ETV)
  - Cysts
  - Septa
- Restoration
  - Foraminoplasty
  - Aqueductoplasty
- Excision & Biopsy
  - Lateral and Third Ventricular tumors

# Hydrocephalus



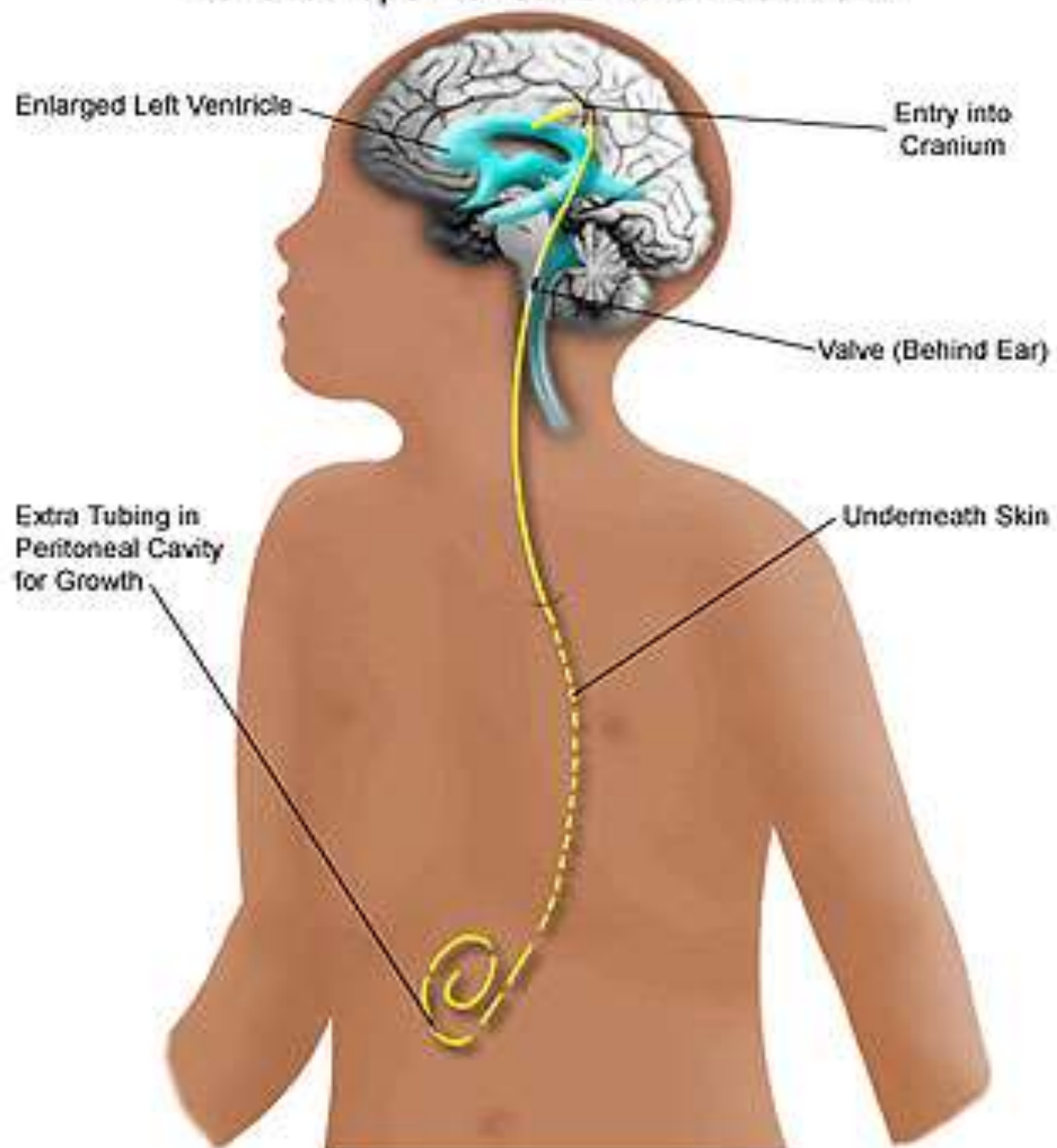


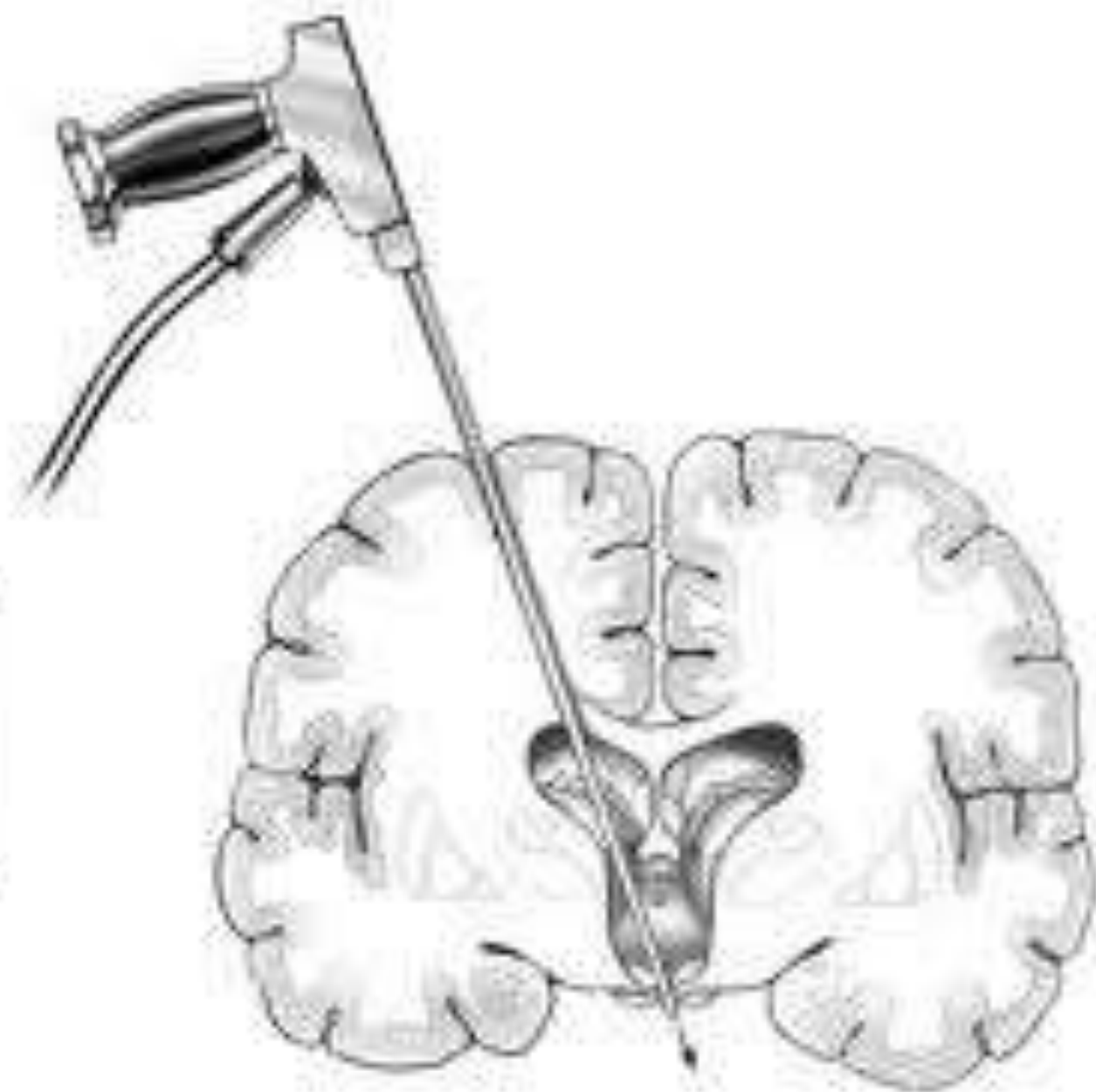




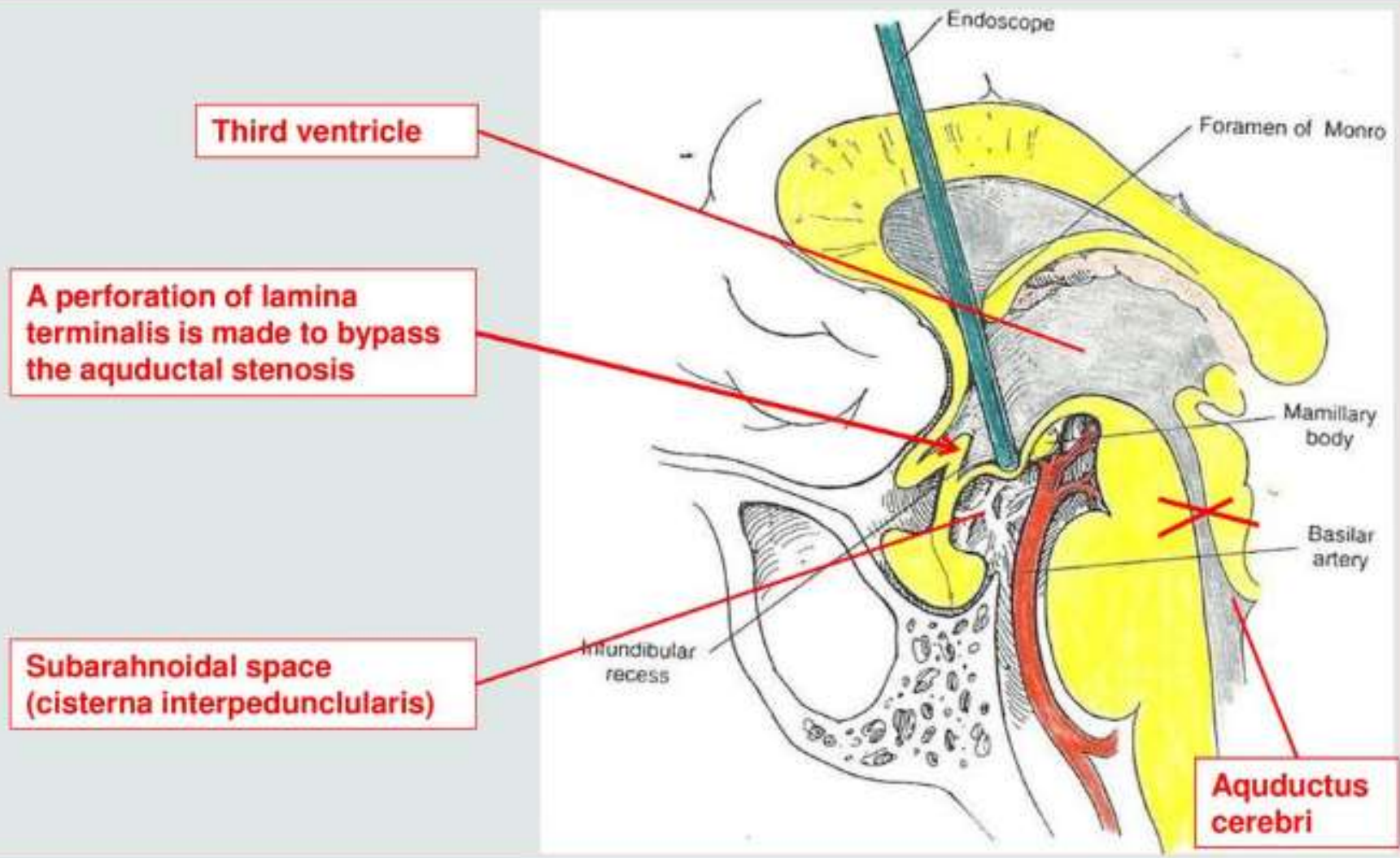


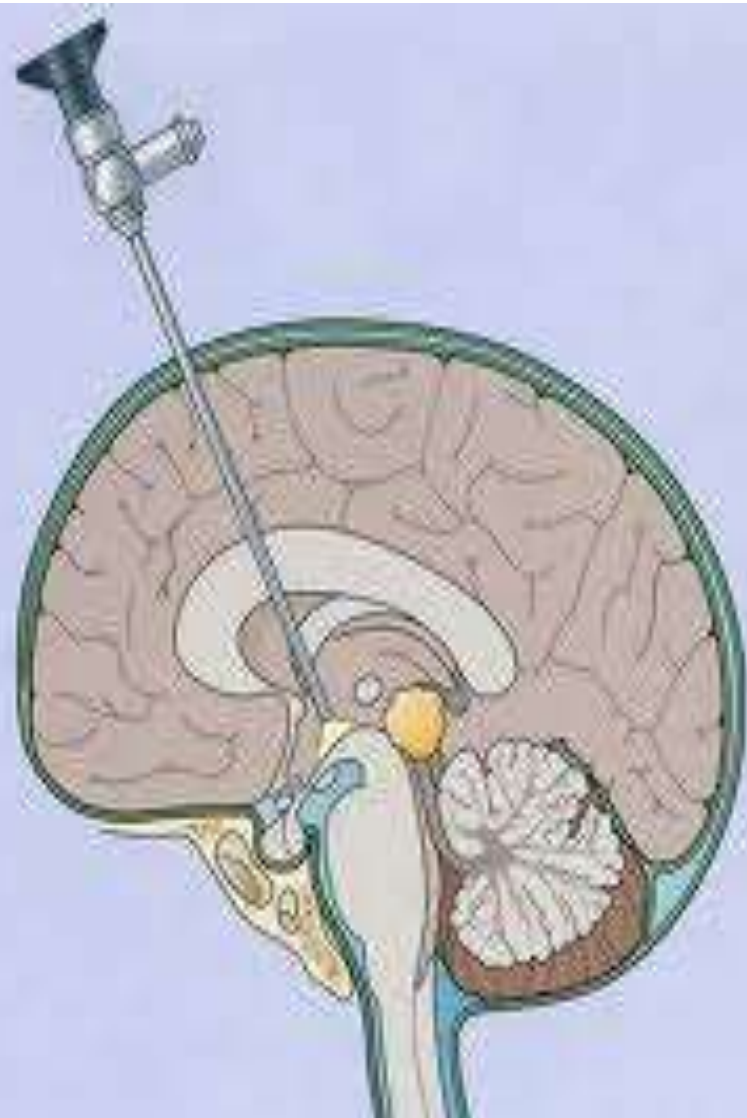
## Ventriculoperitoneal Shunt Placement





# Endoscopic third ventriculostomy









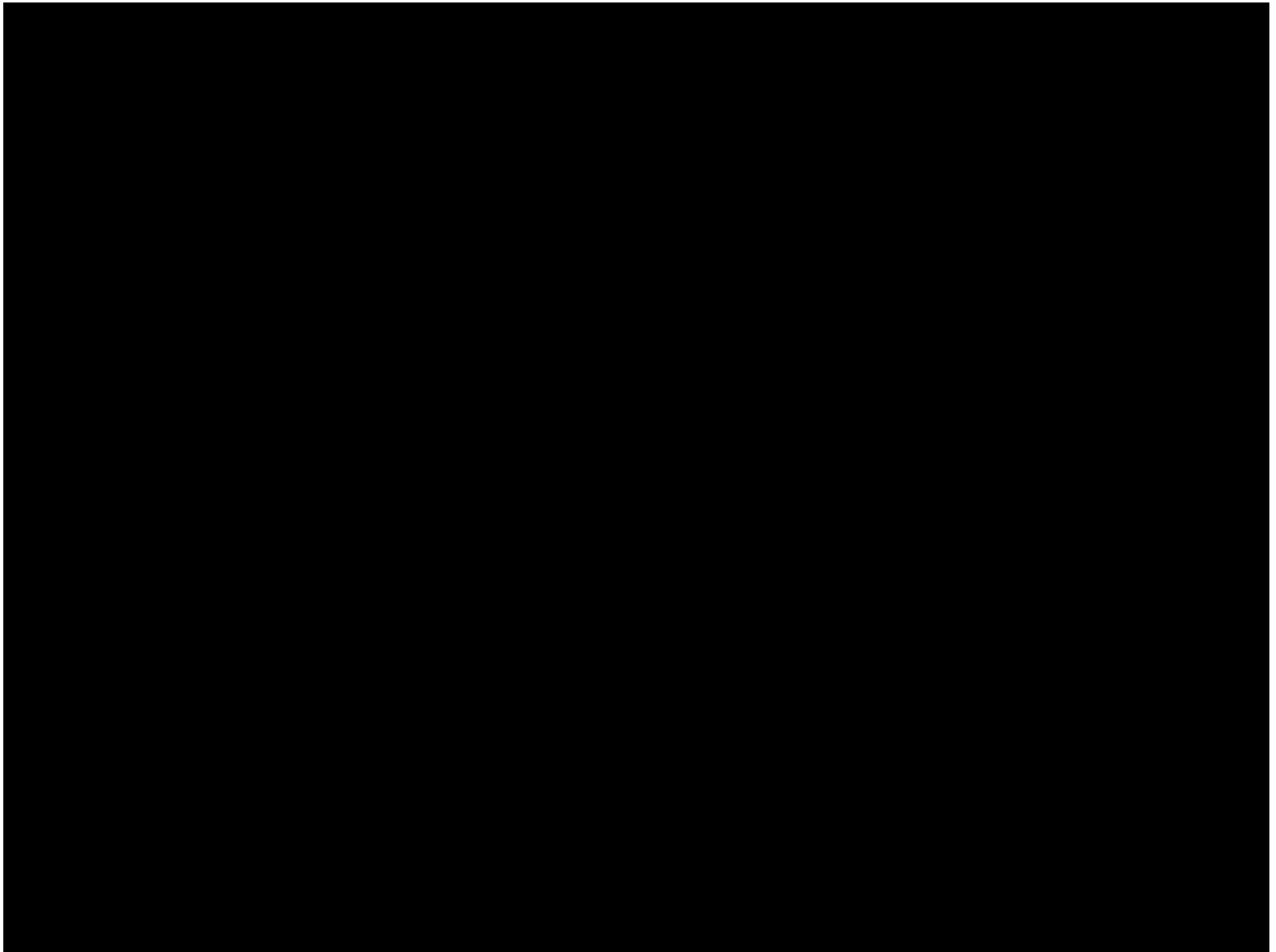




# Video







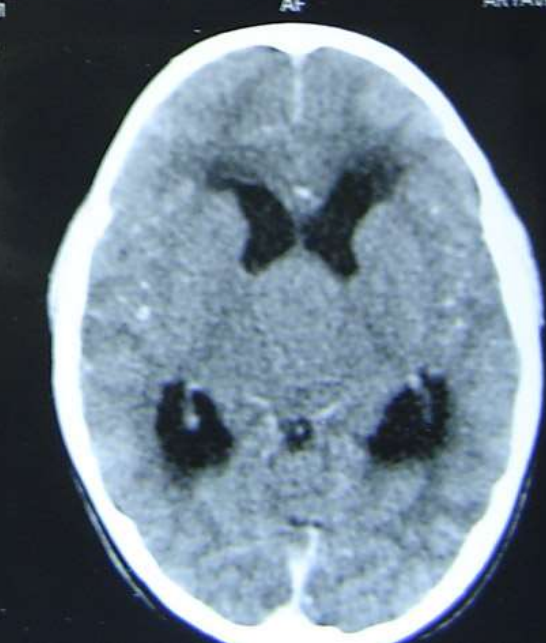
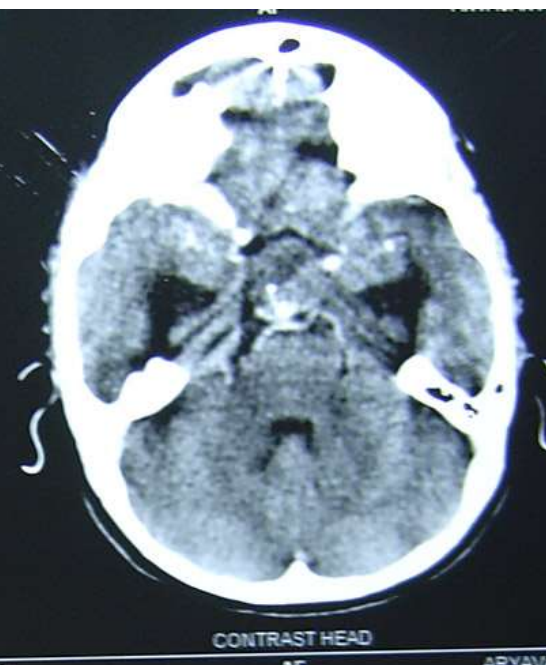
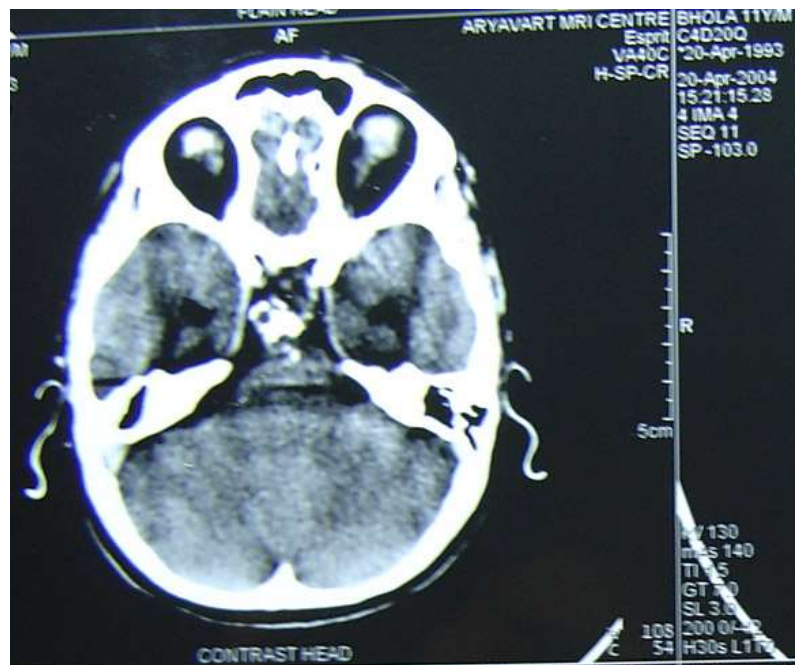




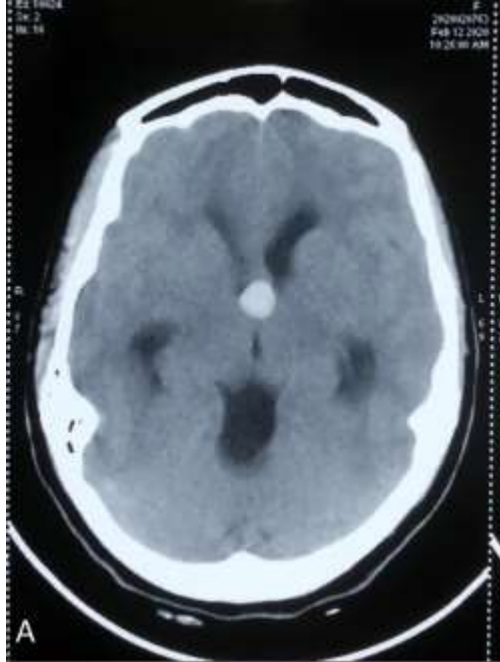
# Intraventricular tumours

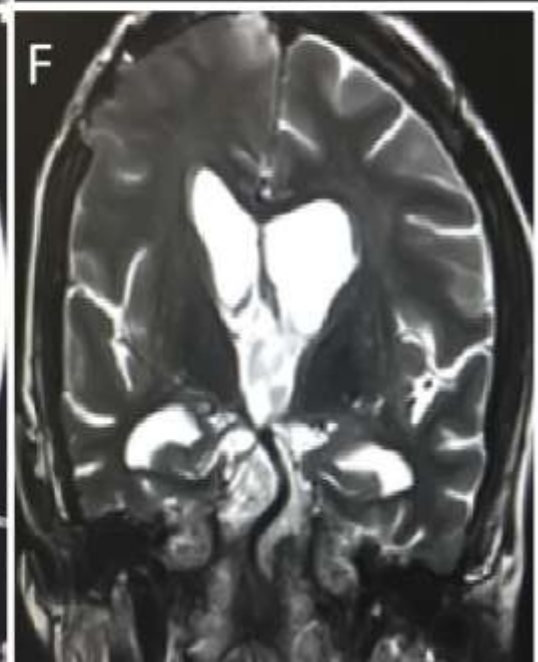
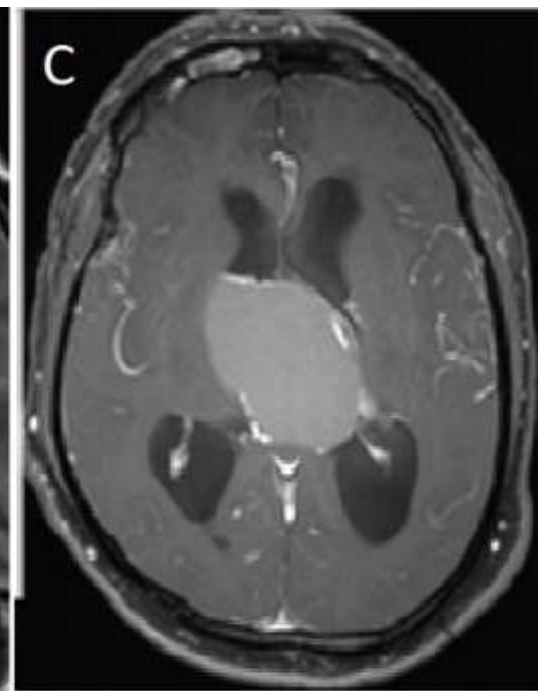
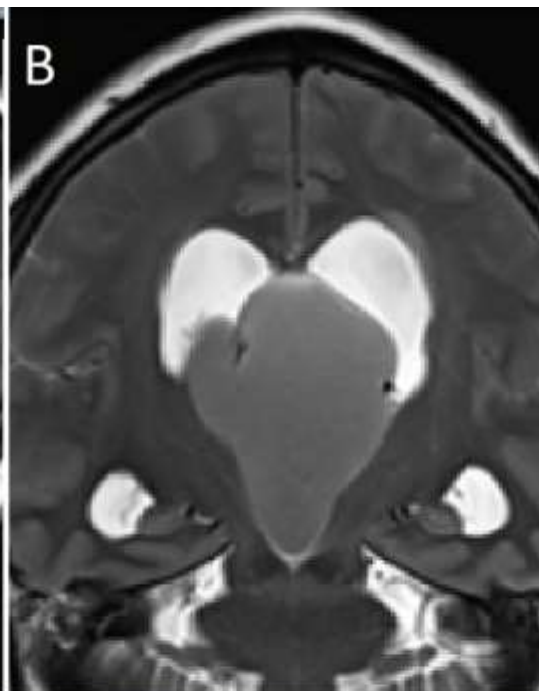
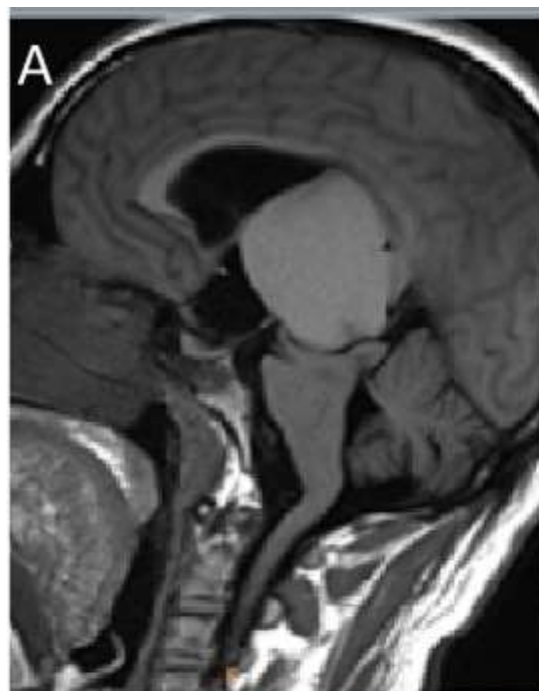
- These are deep seated brain tumors which can arise from within or grow into the ventricular system
- It is now possible with neuroendoscopy to take a biopsy or remove these tumors under vision and perform a ventriculostomy at the same time

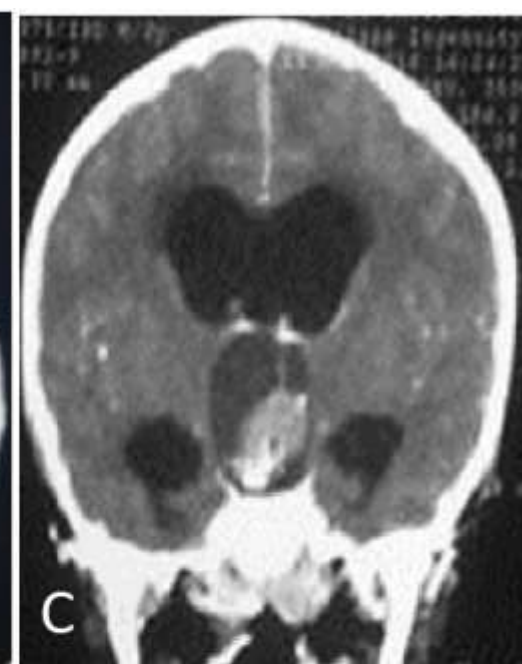








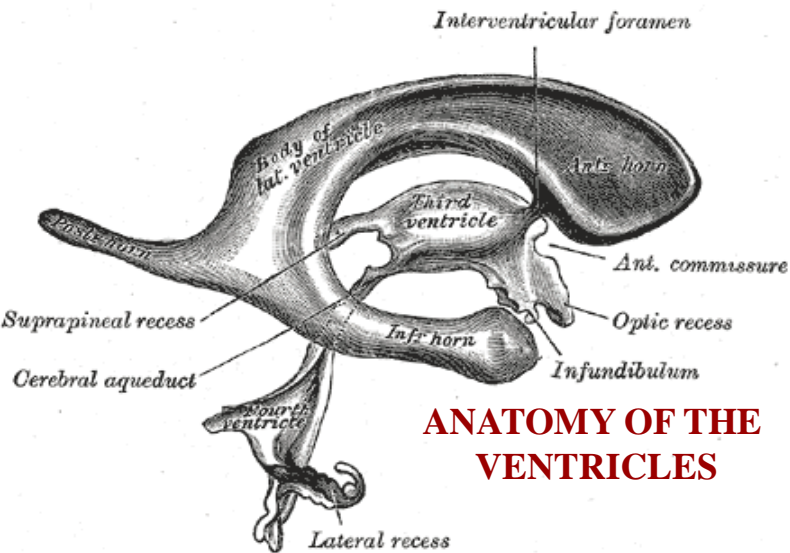




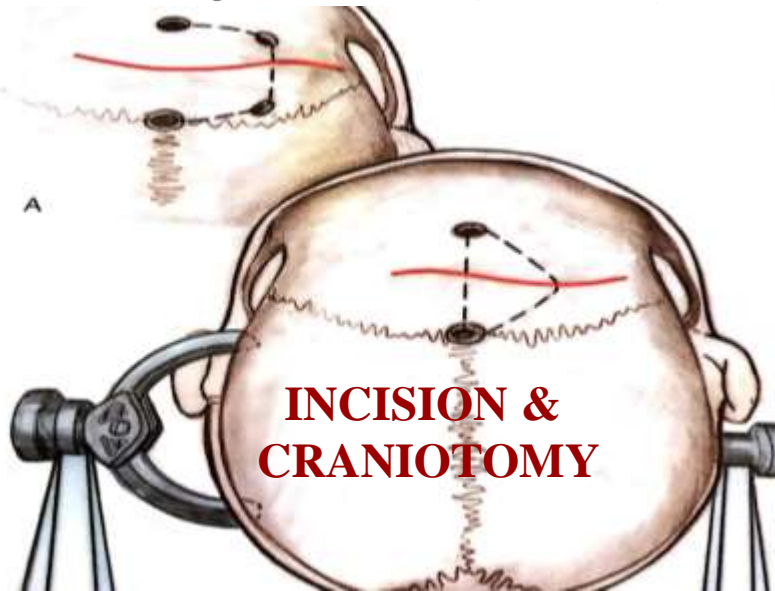


# Conventional Surgical Technique

OPEN TECHNIQUE



**ANATOMY OF THE VENTRICLES**



**INCISION & CRANIOTOMY**



**INTER HEMISPHERIC APPROACH**



**OPENING OF THE VENTRICLES**

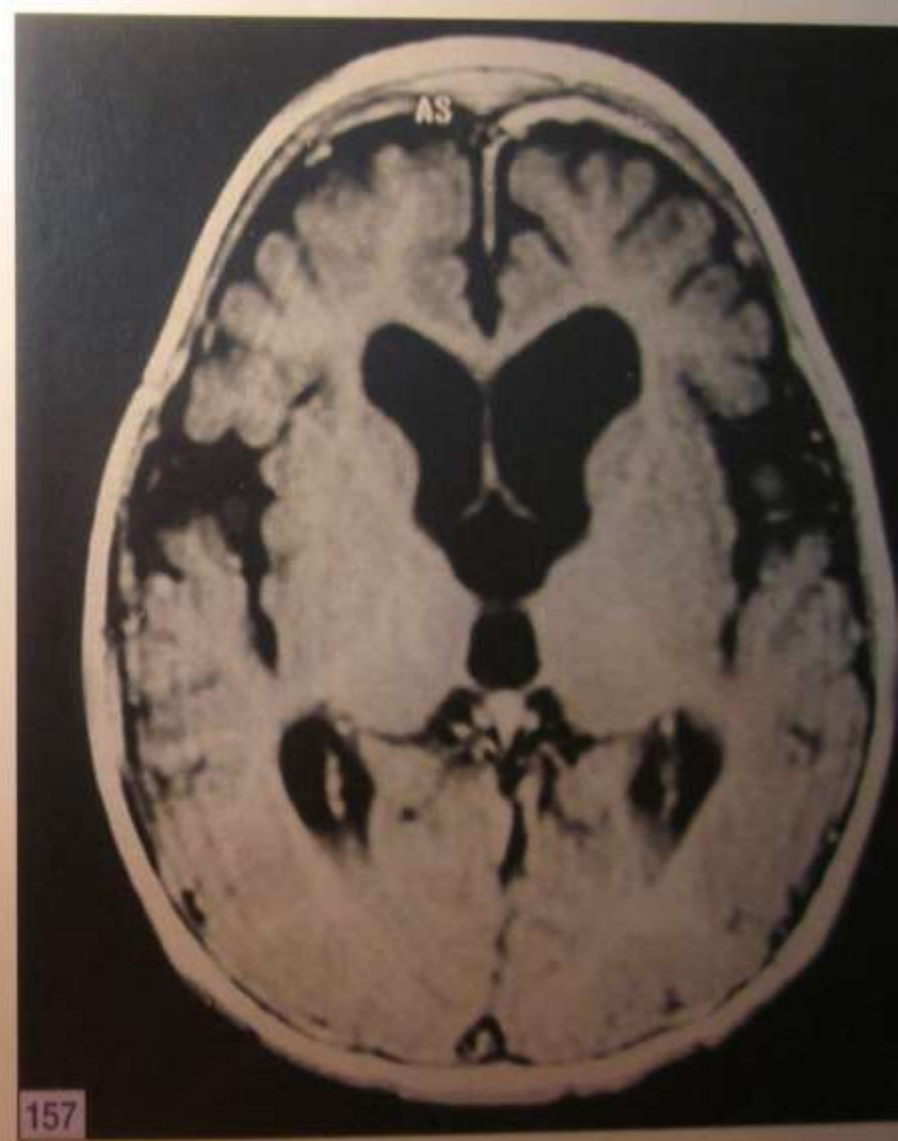
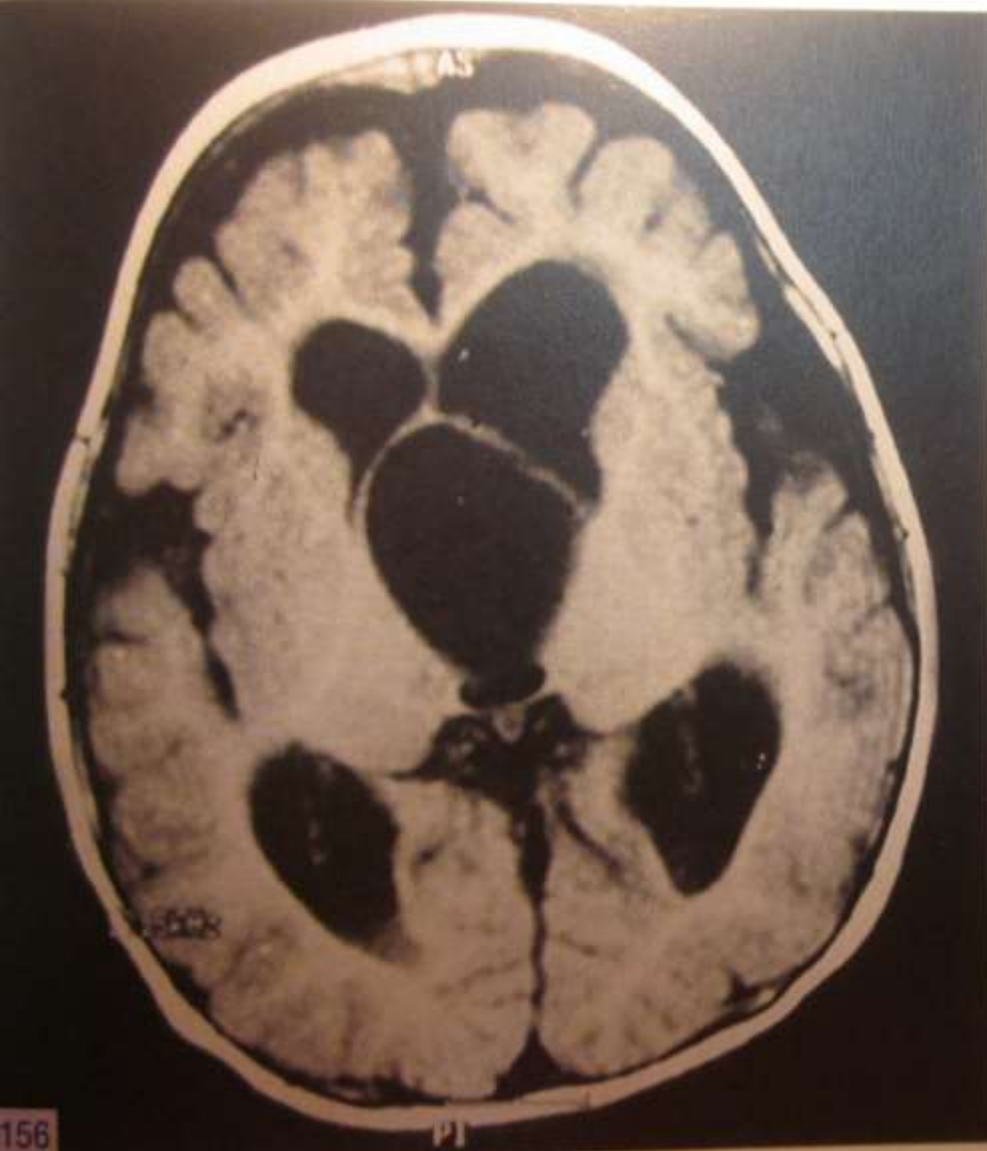


**EXCISION OF TUMOUR**





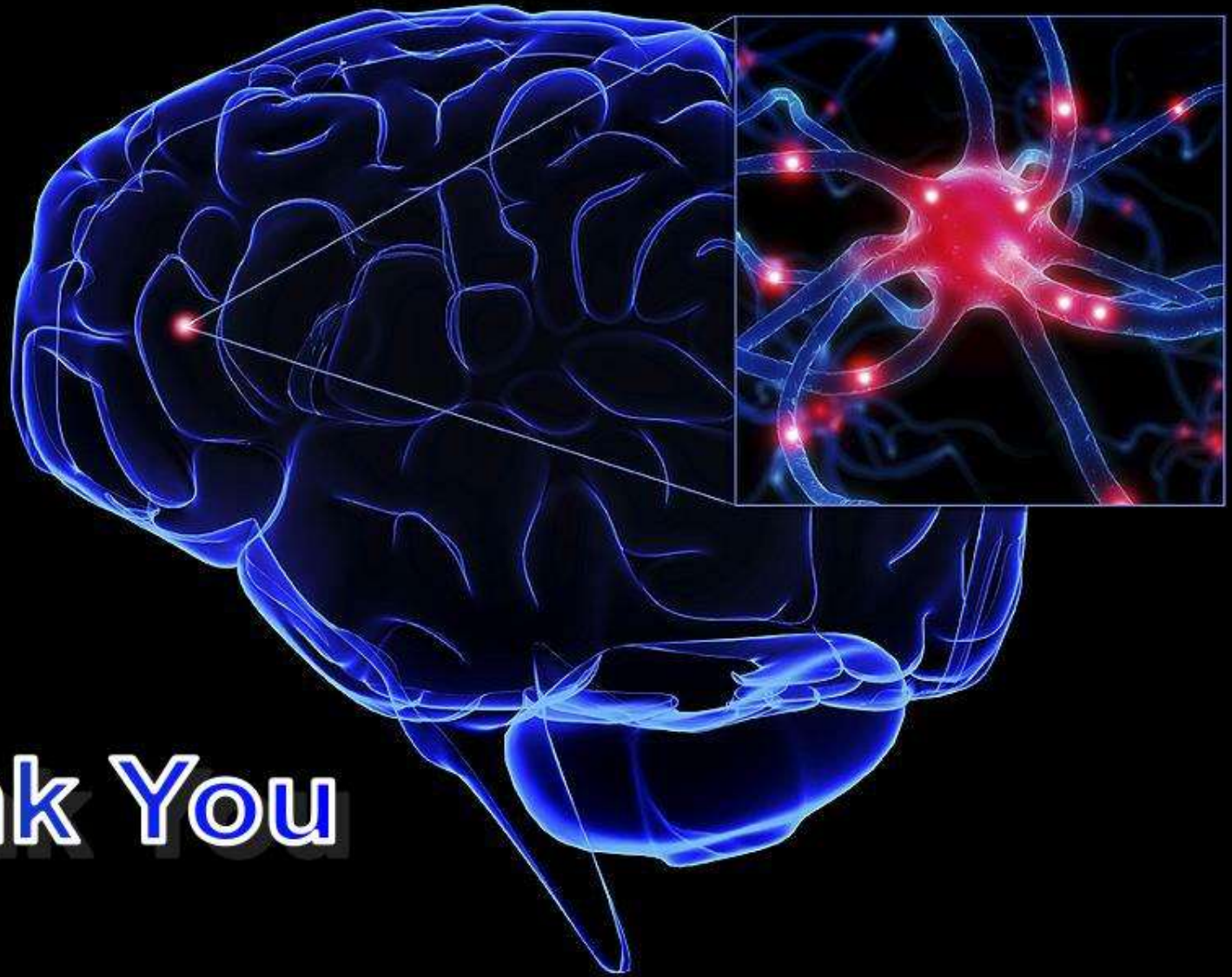




# Advantages of Minimal Invasive Approaches

- Less pain
- Cosmesis
- Shorter hospital stay
- Faster and safer procedure
- Overall reduction in financial burden





Thank You