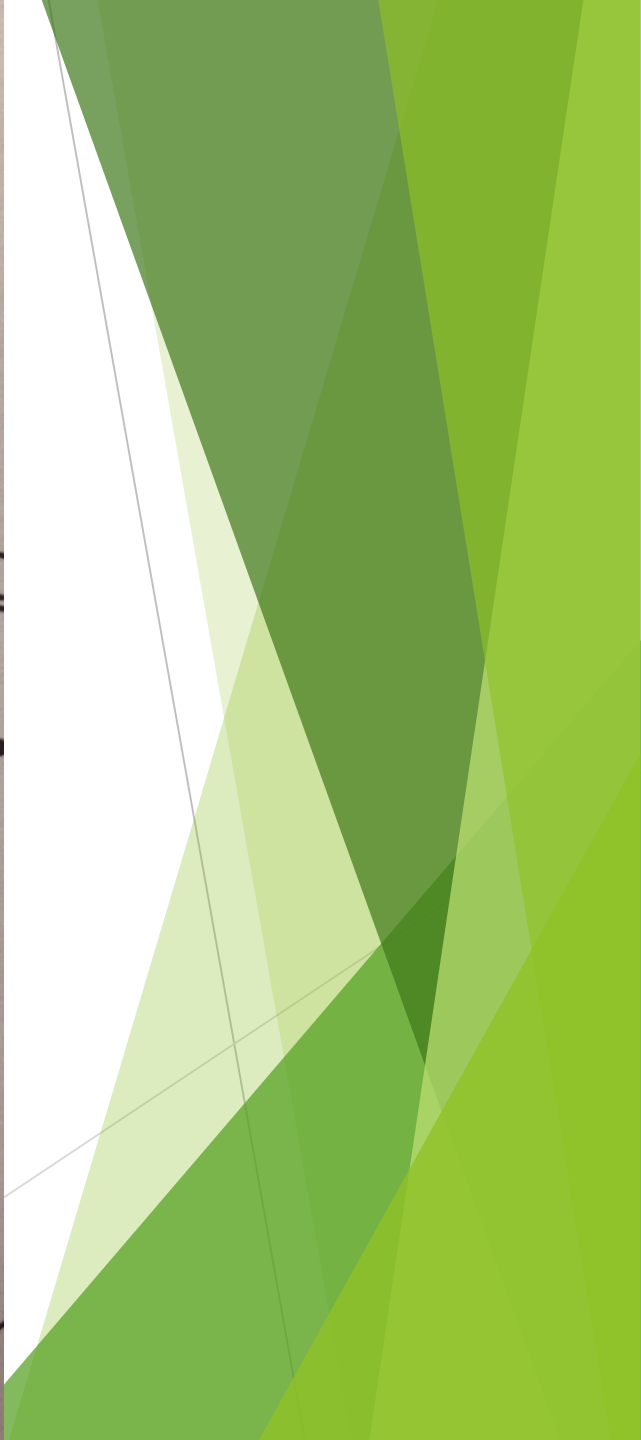
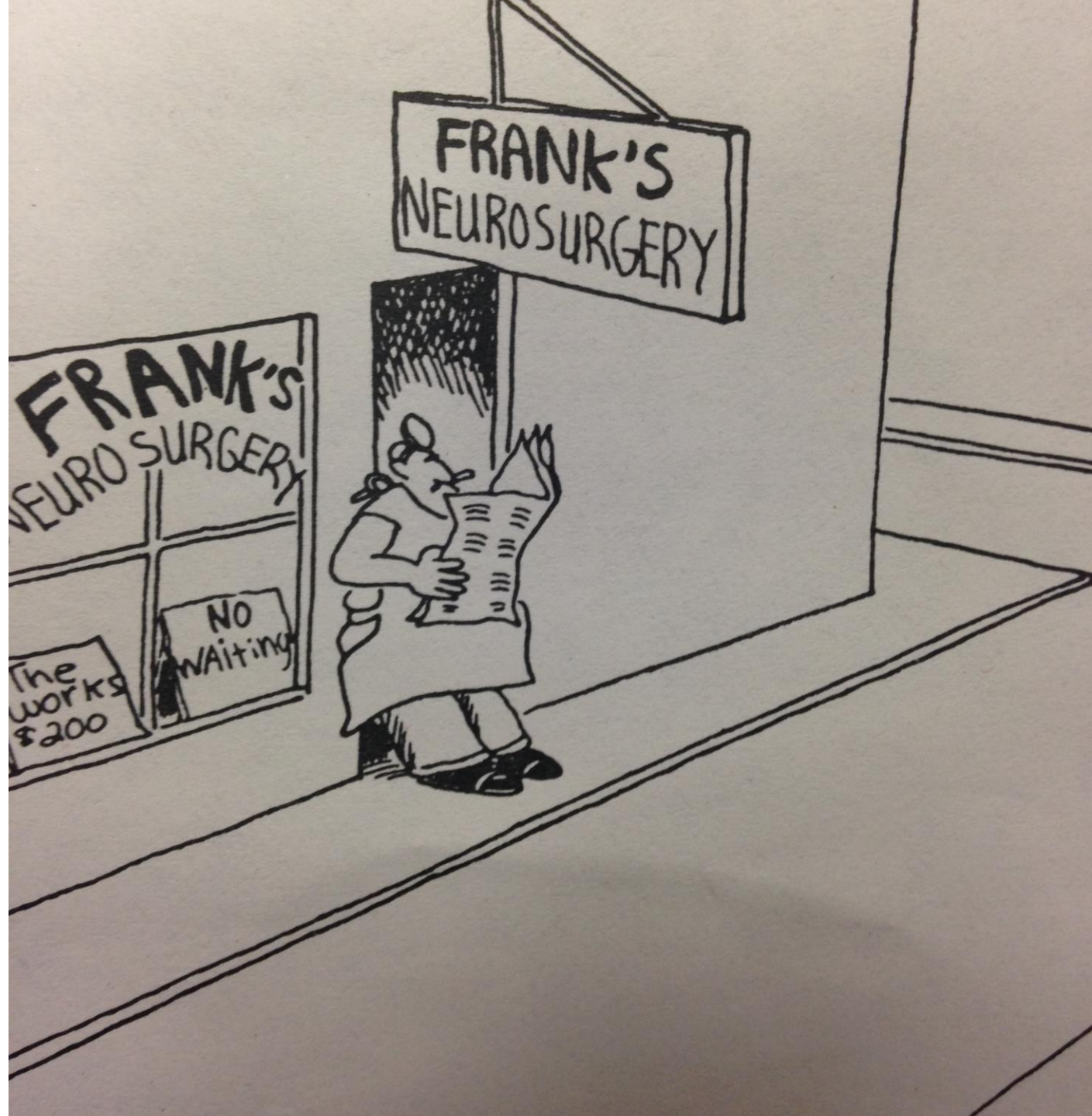


BRAIN TUMORS

How to diagnose and treat
Frank Schinco MD



Presenting Symptoms

Symptoms of increased intracranial pressure(ICP)

Headache, Nausea, Vomiting

Focal Neurologic Deficit

Weakness, Sensory Loss, Speech, Vision

Seizures

Focal or Generalized

Location

- ▶ **Supratentorial**

- ▶ Cerebral

- ▶ **Infratentorial**

- ▶ Cerebellar

Location

- ▶ Intraaxial

- ▶ Glioma
- ▶ Metastasis

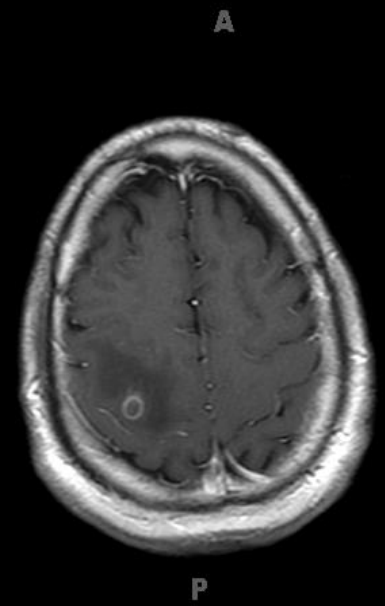
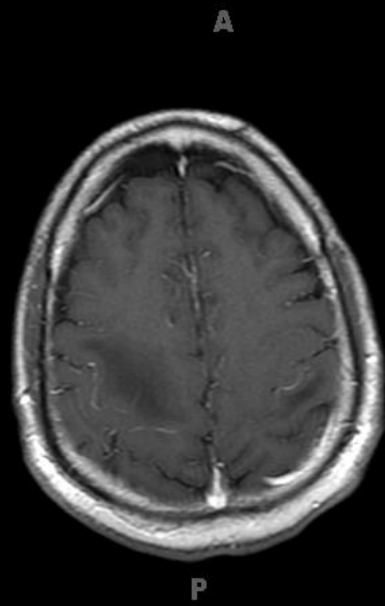
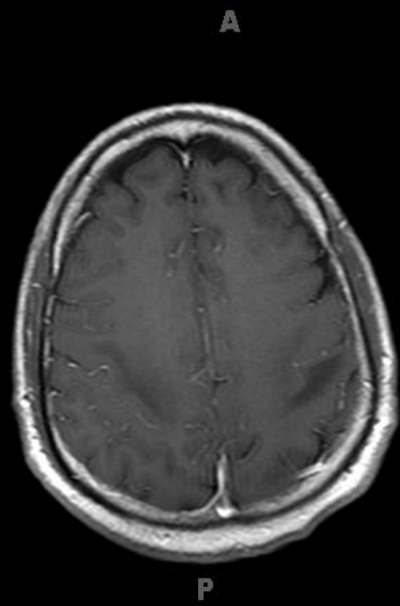
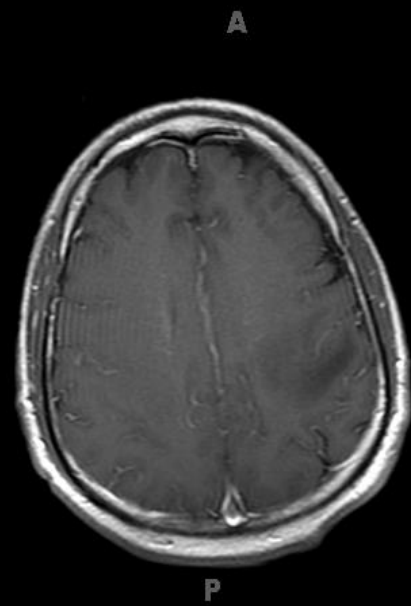
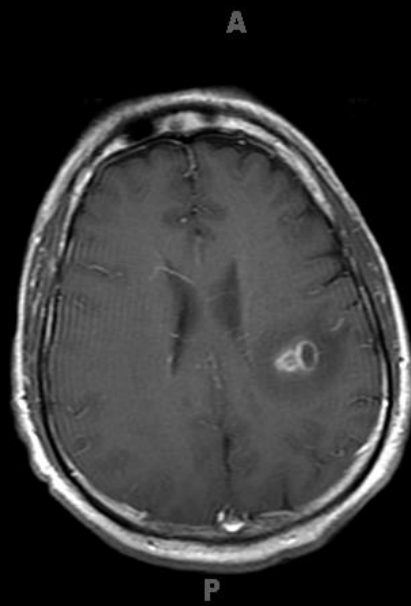
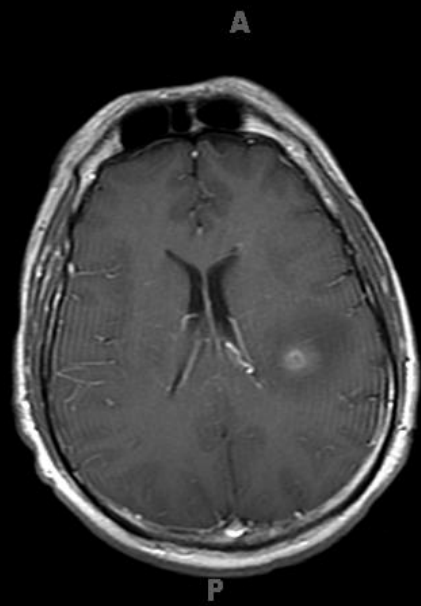
- ▶ Extraaxial

- ▶ Meningioma
- ▶ Schwannoma

Case

- ▶ 50 yo male with several month history of headache.
- ▶ Several weeks of right arm weakness and numbness
- ▶ Evaluated in Emergency room because of a focal seizure involving the right arm
- ▶ CT and MRI done





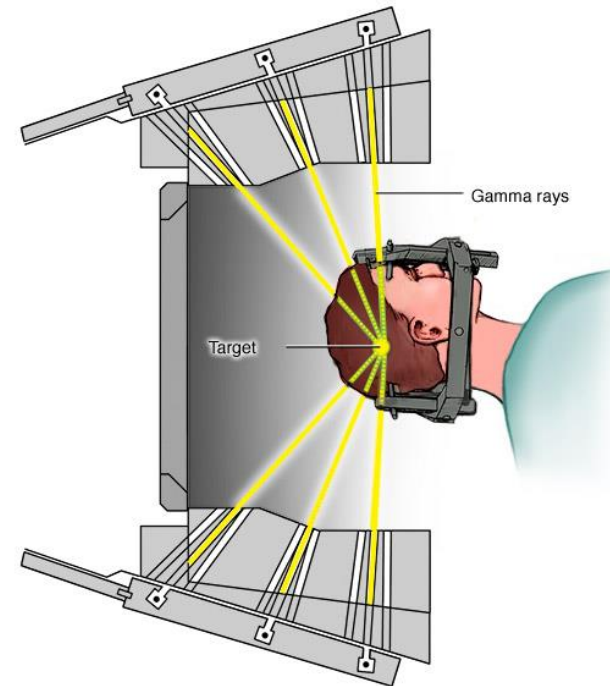
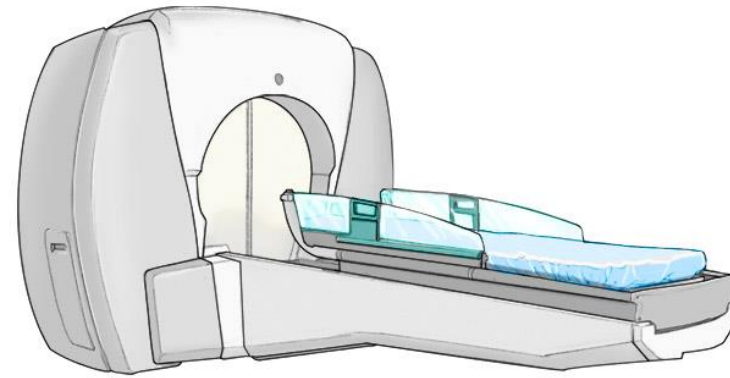
Metastatic tumors

- ▶ Lung
- ▶ Breast
- ▶ Kidney
- ▶ Bladder
- ▶ GI
- ▶ Testicular

Treatment

- ▶ Excision—Solitary
 - ▶ Depends on location
- ▶ Radiation
 - ▶ Stereotactic
- ▶ Chemotherapy

Stereotactic Radiosurgery



Gamma Knife unit and radiation delivery

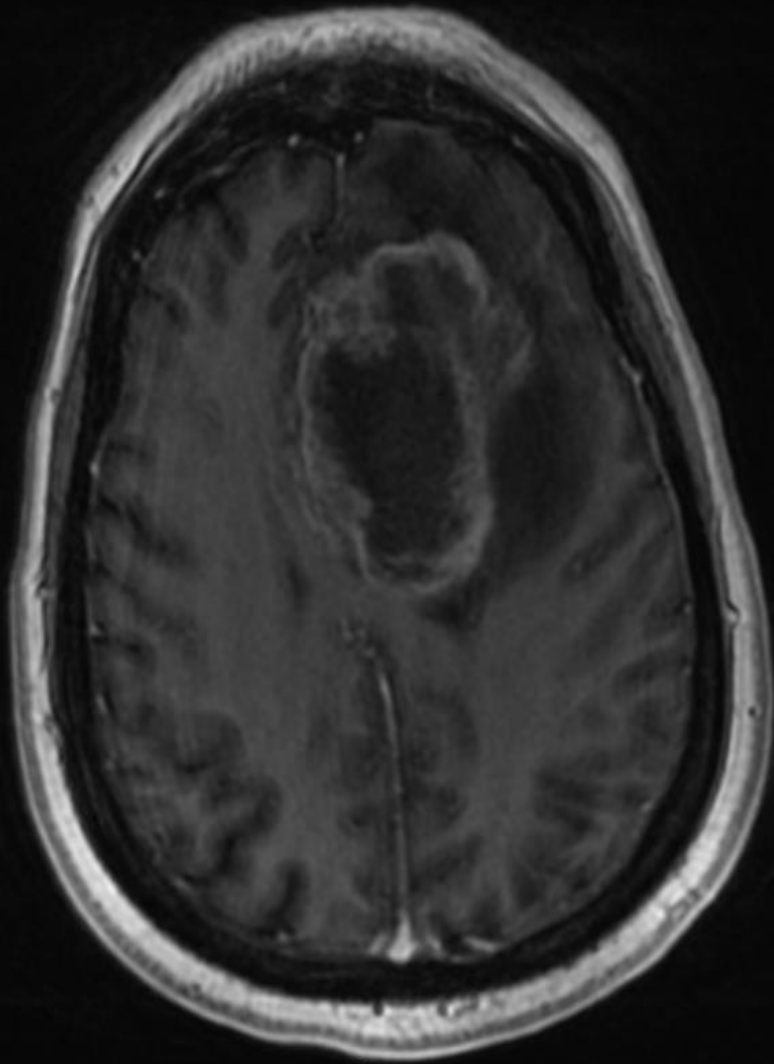
Intraaxial tumor

- ▶ 70 yo female onset of headache several weeks
- ▶ Mental Status changes
- ▶ Right arm and leg weakness
- ▶ CT and MRI done

Malignant Glioma

- ▶ **Poor Prognosis**
 - ▶ 16 months Median Survival
 - ▶ Surgical Excision/Biopsy
 - ▶ Radiation
 - ▶ Chemotherapy
 - ▶ Oral -- Temodar
 - ▶ Intratumoral -- Gliadel

A

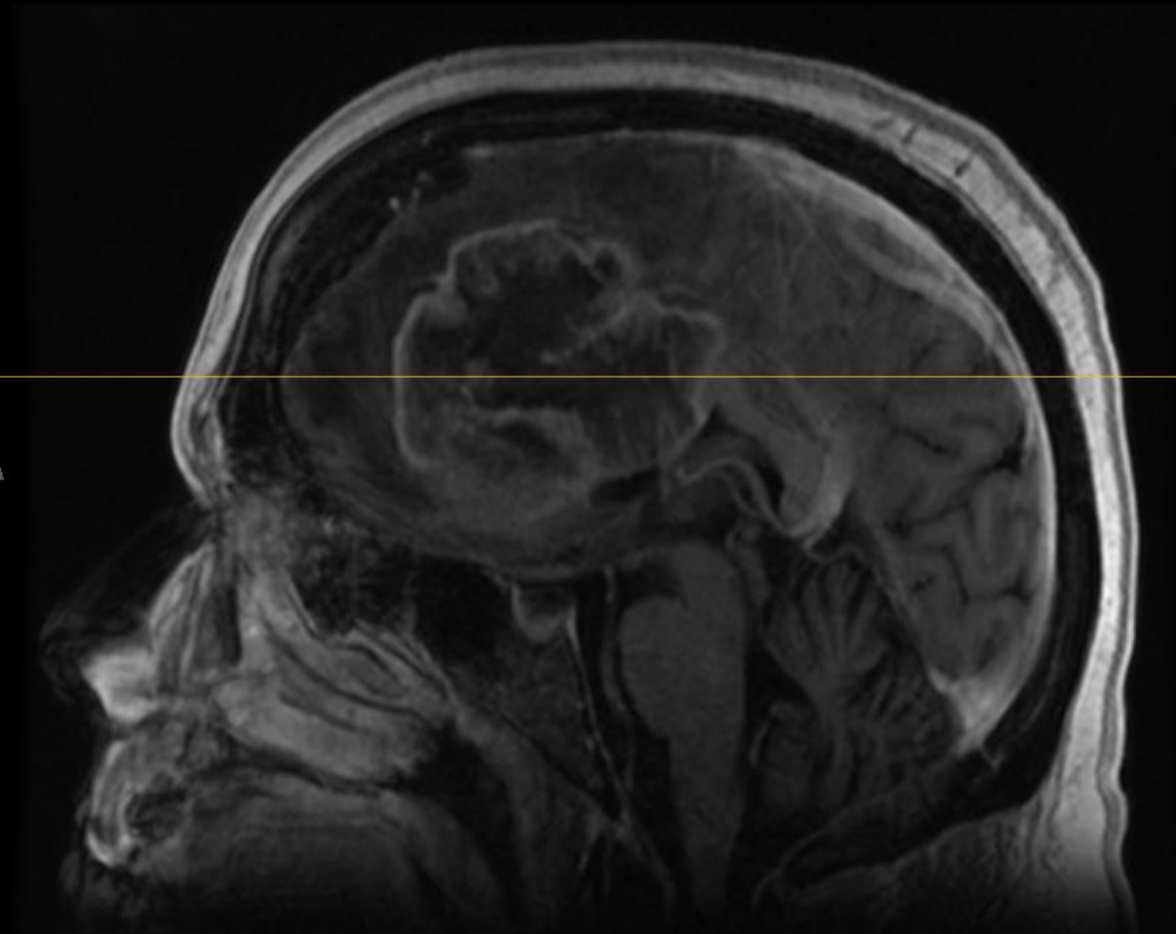


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L

P

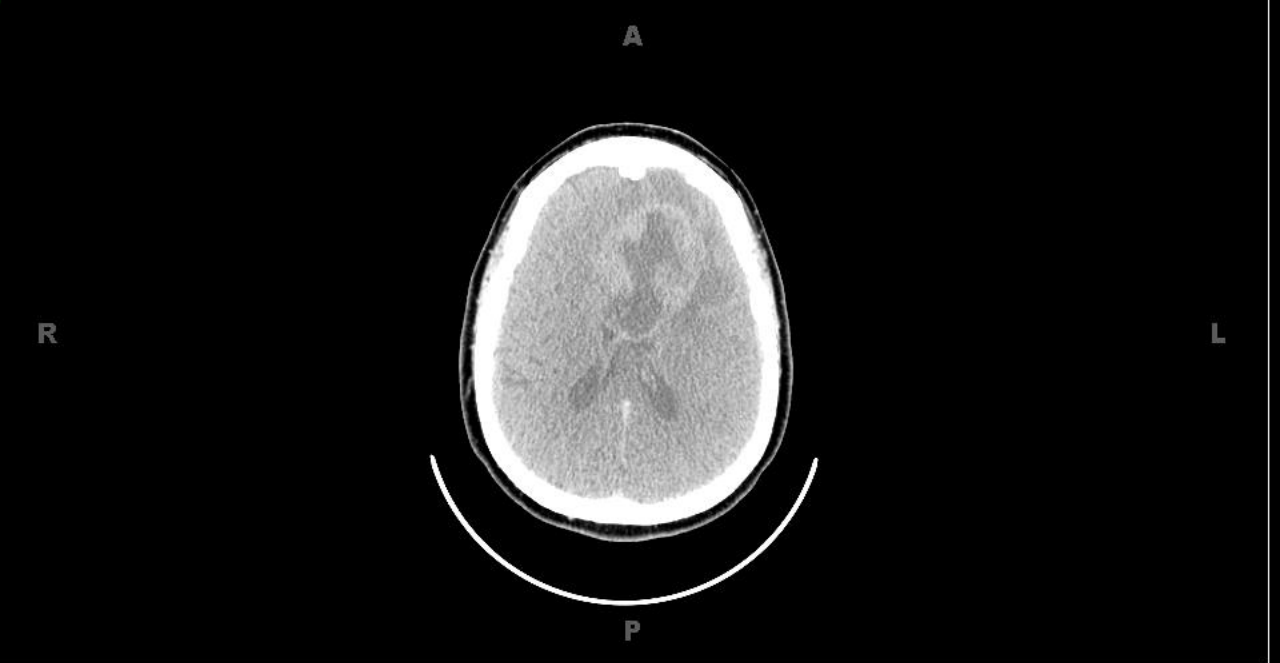
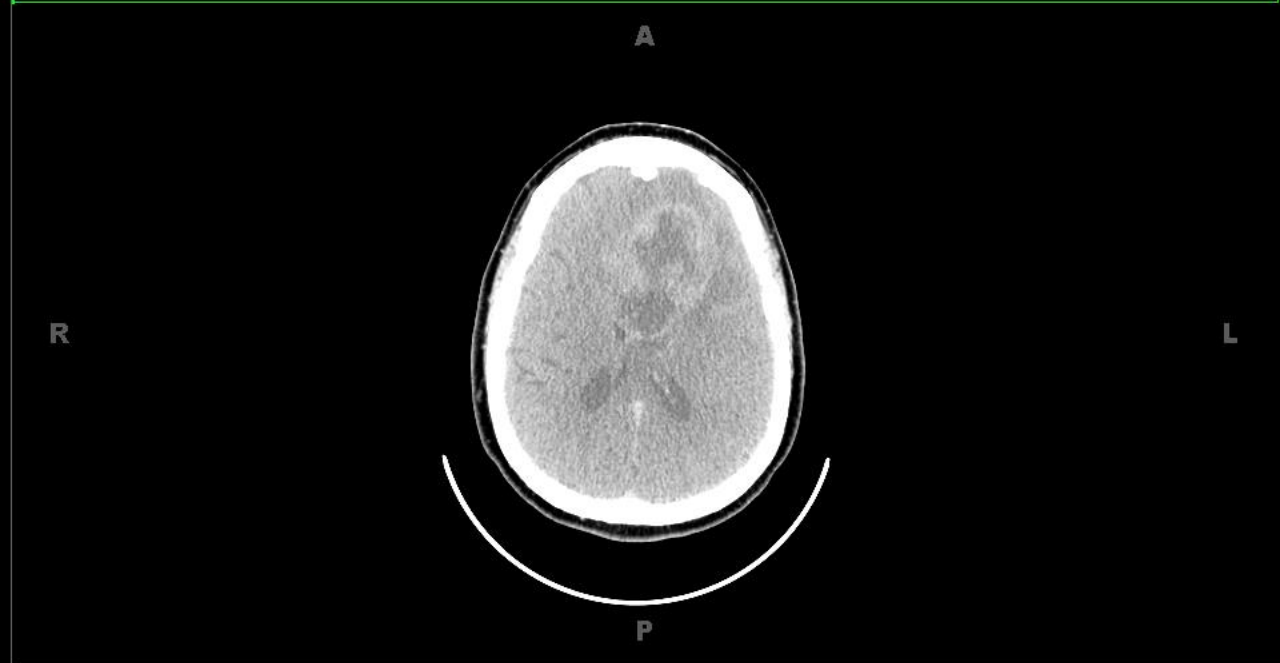
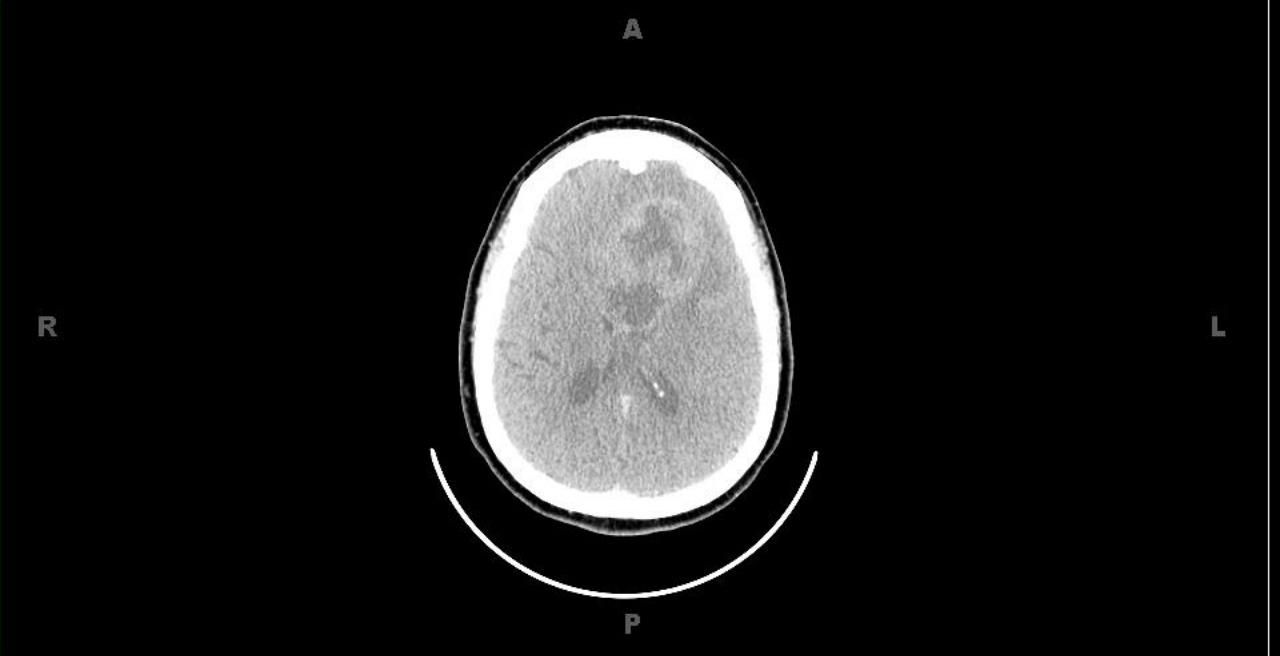
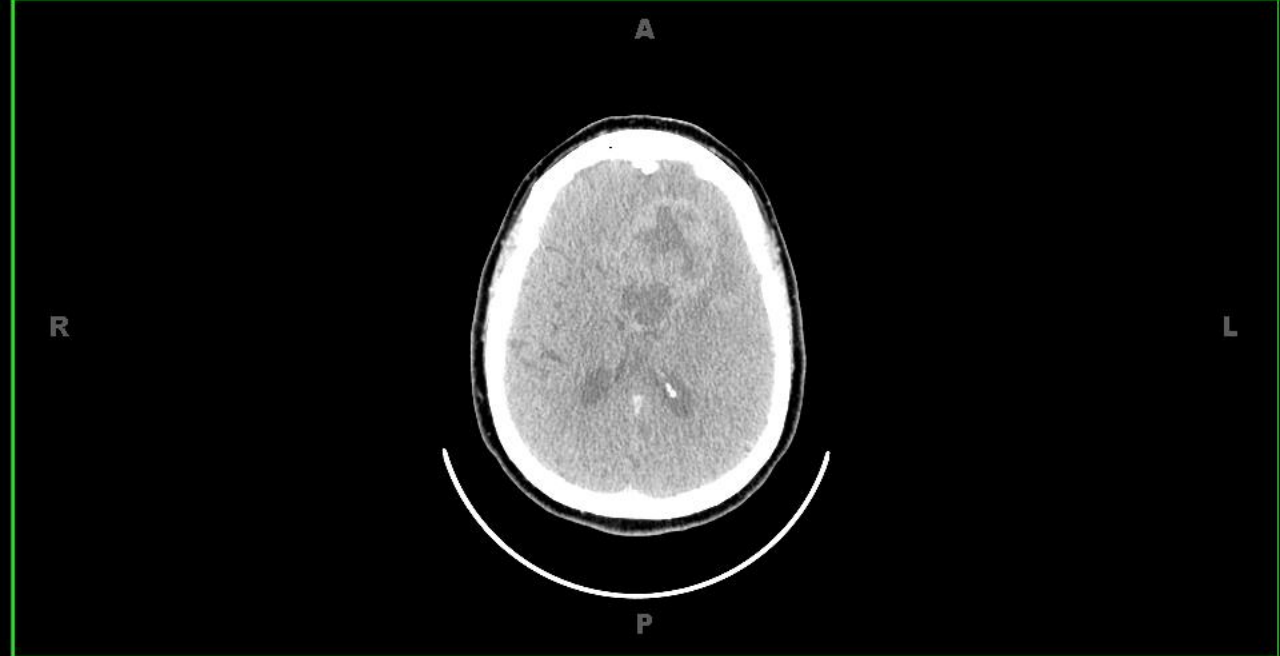
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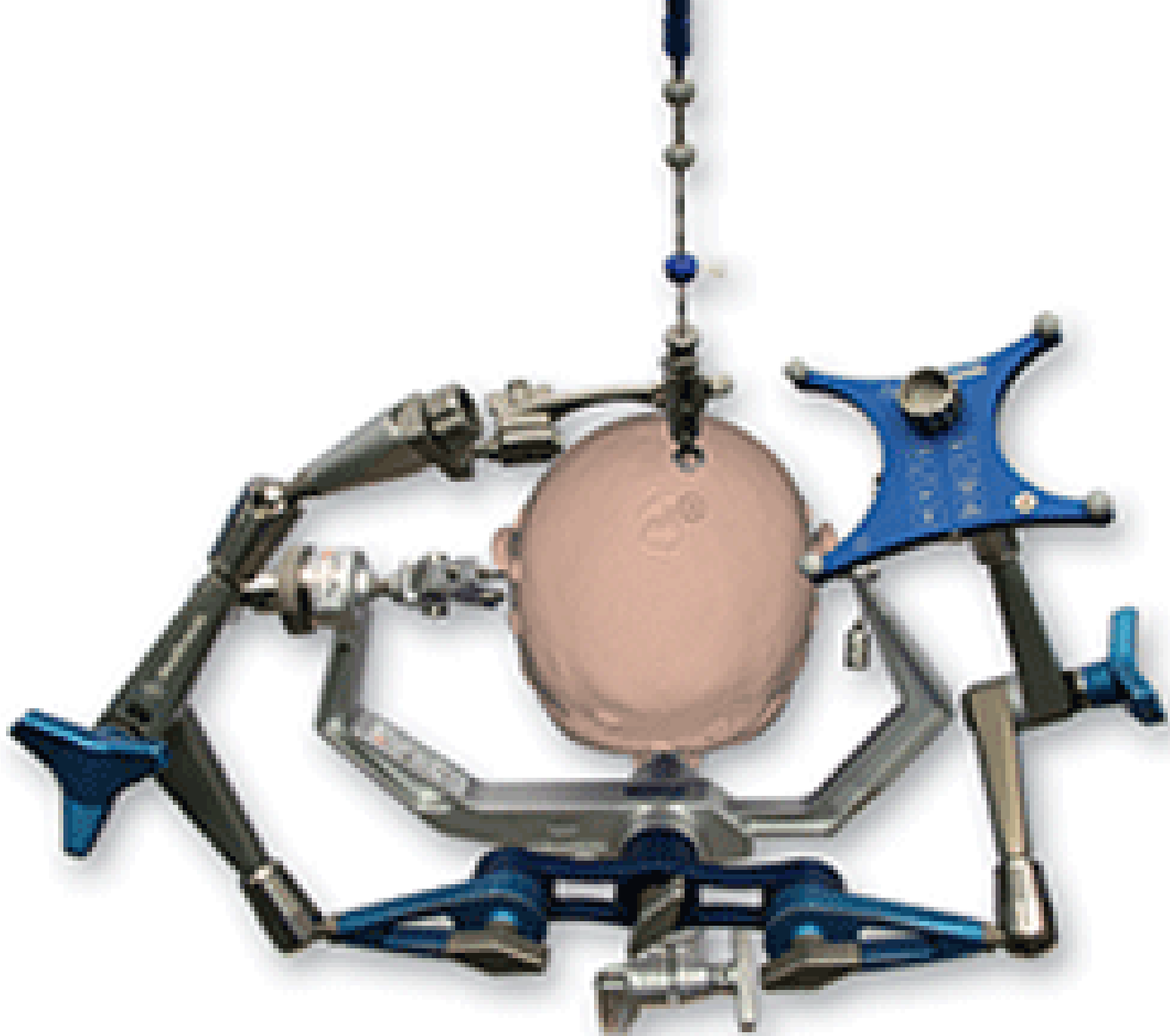
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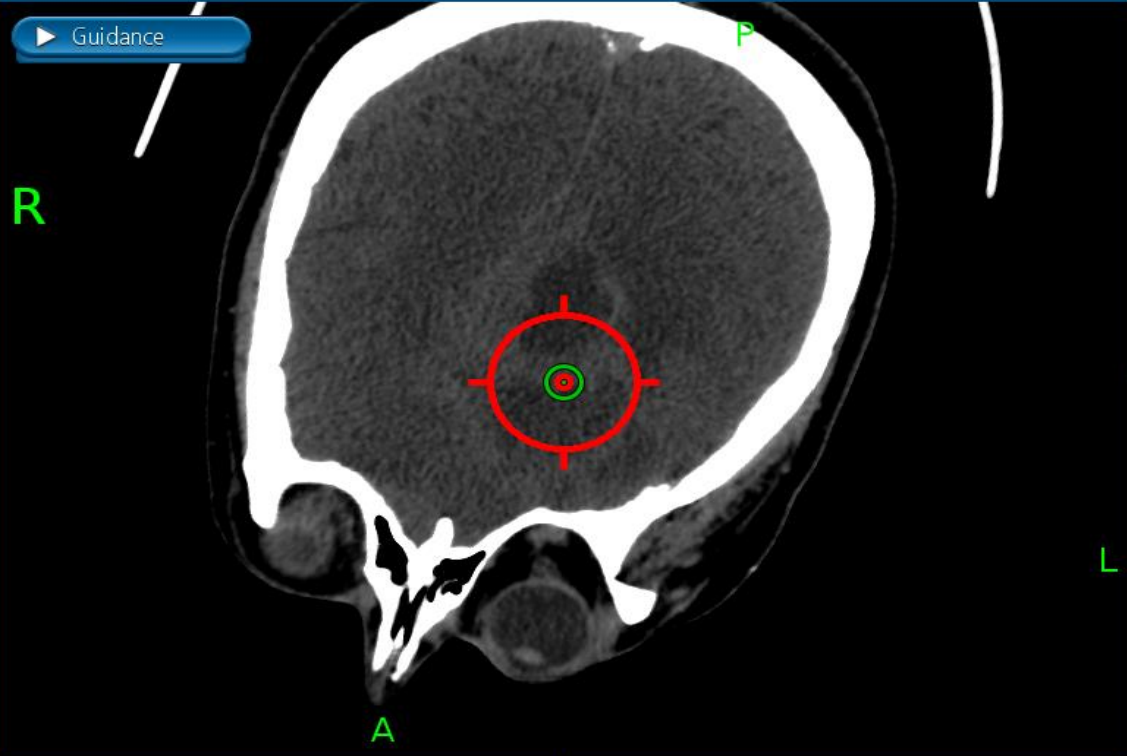




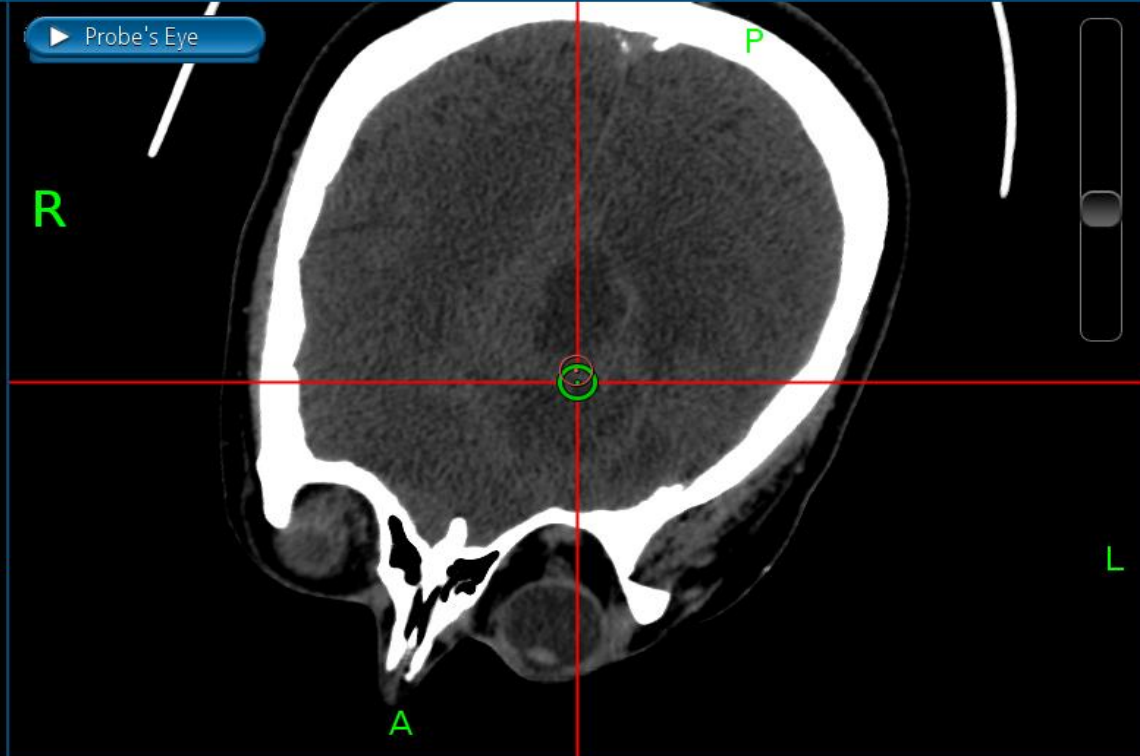




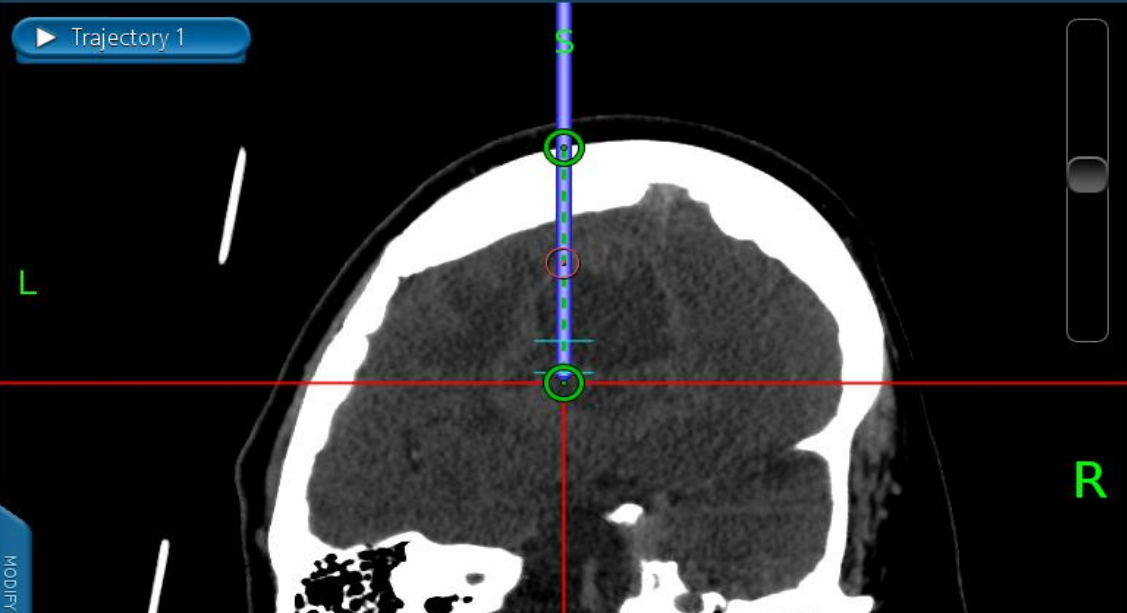
Guidance



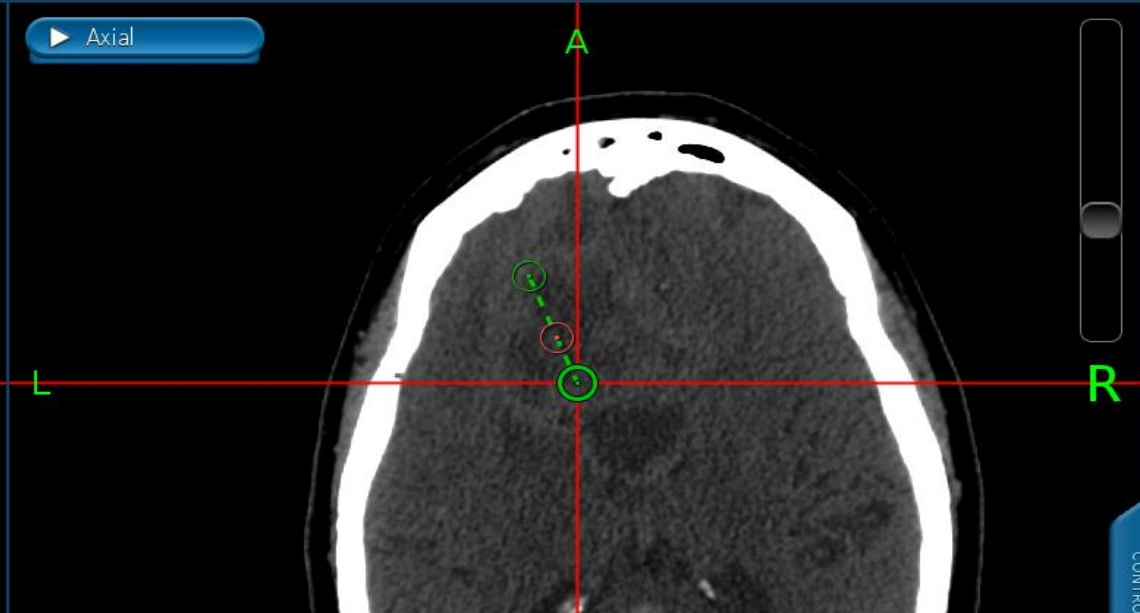
Probe's Eye



Trajectory 1



Axial



Cycle Views



Select Projection



Snapshot

▼ Biopsy

▶ Plan 1

New...

Delete

Set Entry

61.8
Length (mm)

Undo

Go To Entry

61.8
Depth (mm)

StealthMerge

Build 3D Mod

▶ View Settings



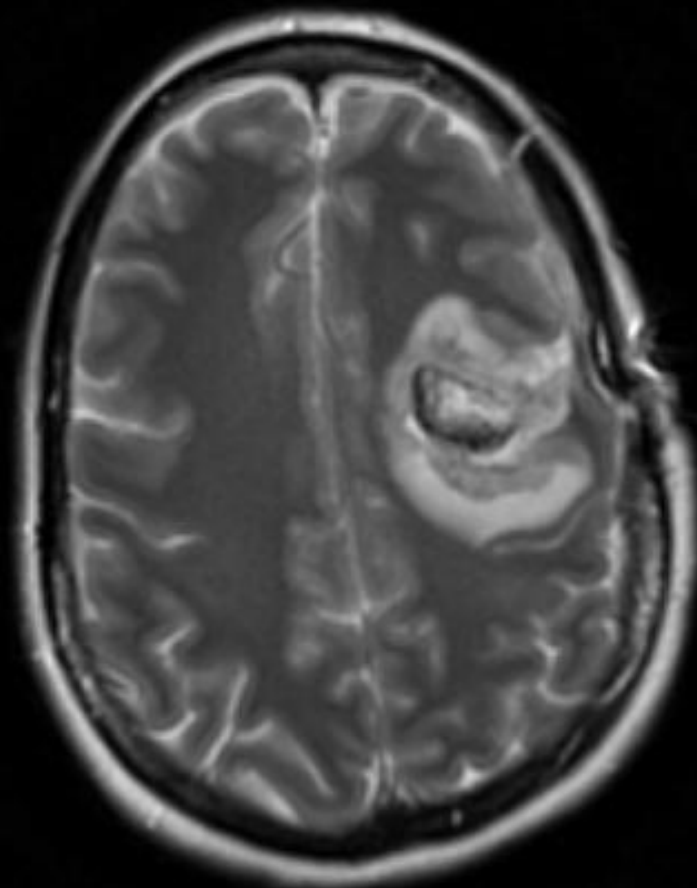
Medtronic

CONTRAC

MODIFY



To remove the GLIADEL Wafer, gently grasp the wafer with the aid of forceps and place it onto a designated sterile field.



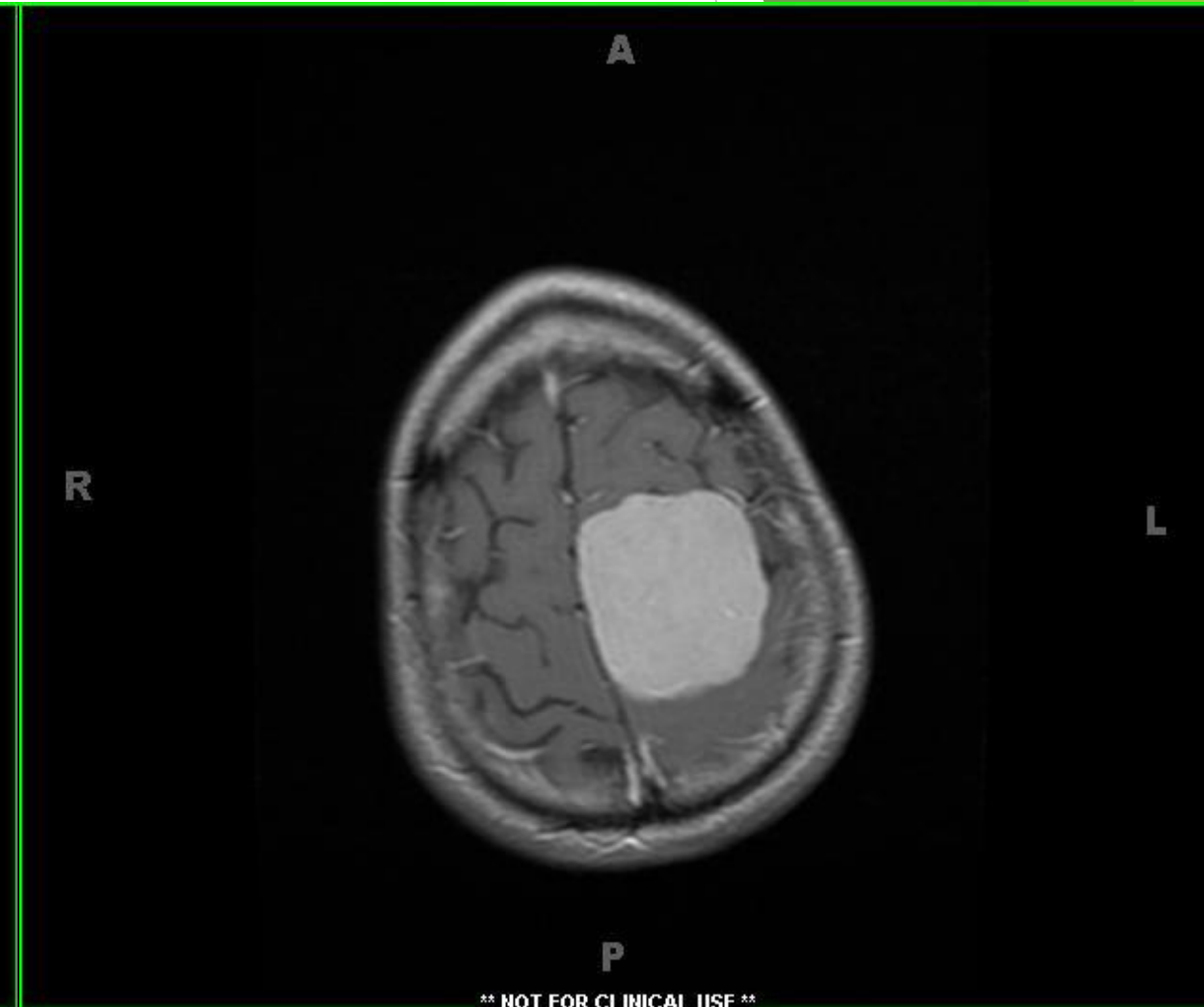
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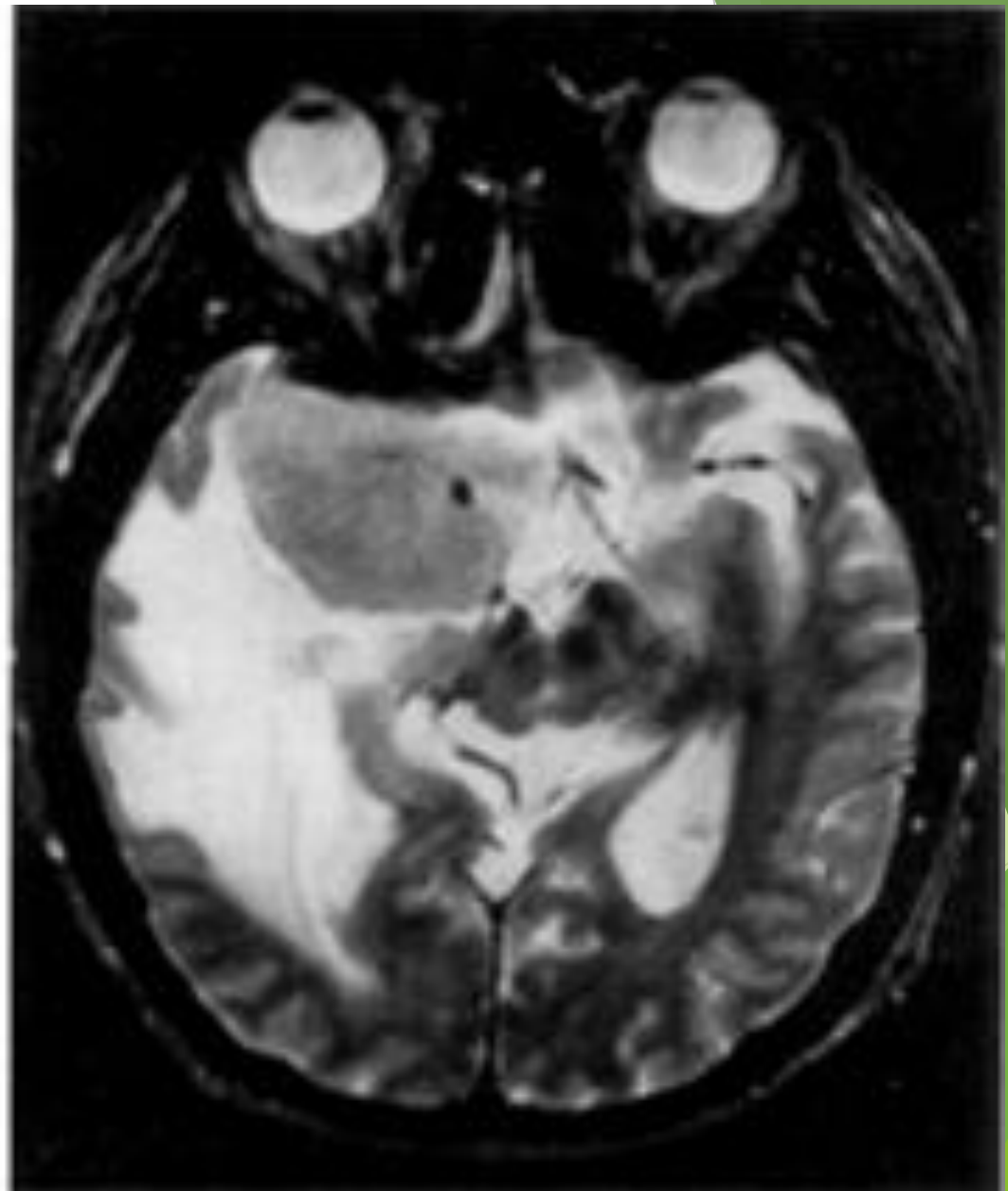
**** NOT FOR CLINICAL USE ****

Extraaxial tumors



Prognosis (Meningioma)

- ▶ Surgery if total is Curative
- ▶ May have neurologic deficit
- ▶ May invade Bone and Vessels





"Whoa! *That* was a good one! Try it, Hobbs — just poke his brain right where my finger is."

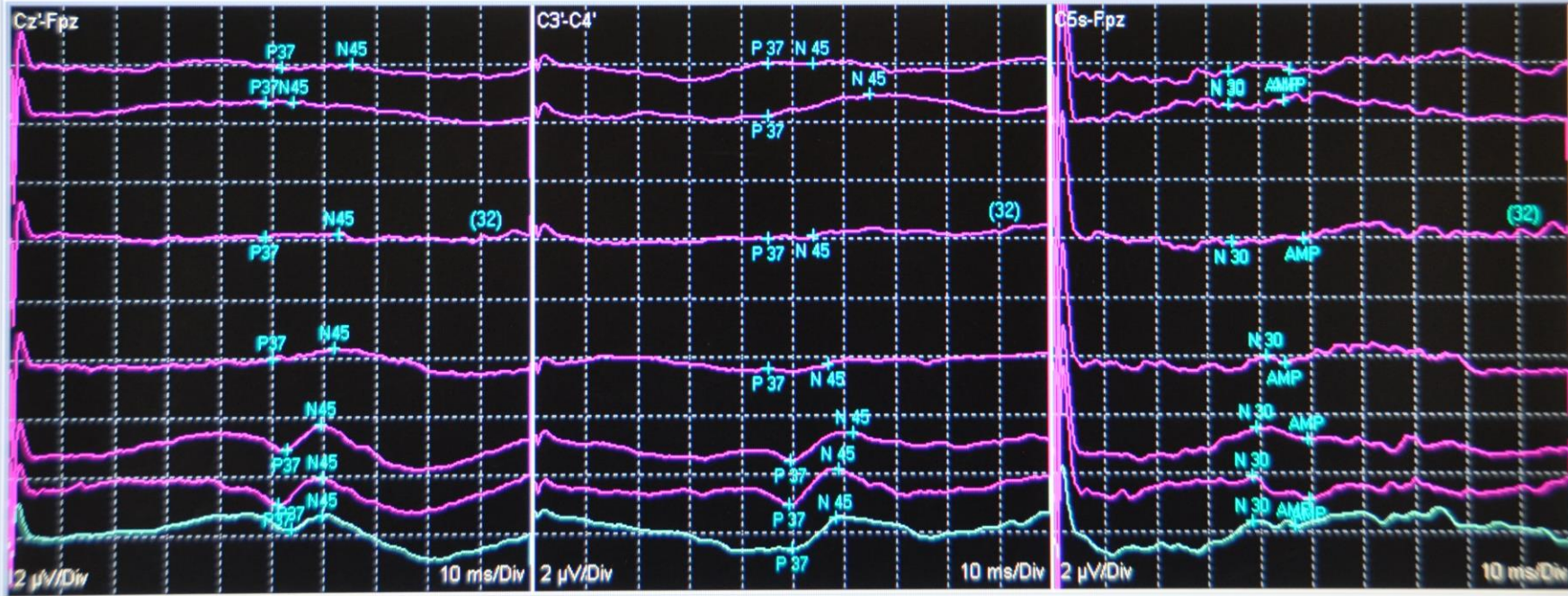
Intraoperative Stimulation

- ▶ Stim cortex and Measure motor function
- ▶ Stim peripheral nerve and measure cortex
- ▶ Awake Craniotomy





Rt Tibial SEP - Summary



- 14:42:23
- 14:42:38 B
- 14:42:47 D
- 14:43:39
- 14:44:51 N
- LEFT AND P
- 14:44:56
- 14:46:13
- 14:47:22 B
- OF ALL RES
- 14:47:29
- 14:47:46 B
- 14:48:46
- 14:39:50
- 14:41:07
- 14:41:28 S
- CHANGES I
- 14:41:48 S
- LOOSENING
- 14:42:23
- 14:42:38 B
- 14:42:47 D
- 14:43:40
- 14:44:51 N
- LEFT AND P
- 14:44:56
- 14:46:13

