Identification

- Gender: male
- Age: 58 y/o

Chief complain

- Headache for one week

Present illness

- This 58 y/o male suffered from mild headache for 10 years.
- He always took medicine brought from drug store
- Headache got worse one weeks ago
- The pain focus at left parietal area
- He took some medicine but in vain
- MRI revealed brain tumor, so he was admitted for further evaluation and surgical treatment

Past history

- Cataract for more than 10 years
- Head injury 13 years ago s/p OP
- Left shoulder joint infection s/p OP 13 years ago
- Rectal benign tumor s/p OP 4 years ago

PE & NE

- P.E.: grossly normal
- NE:

  cranial nerve ----- no positive finding

  MP: 5+ in four extremity

  DTR: 2+ in reflex

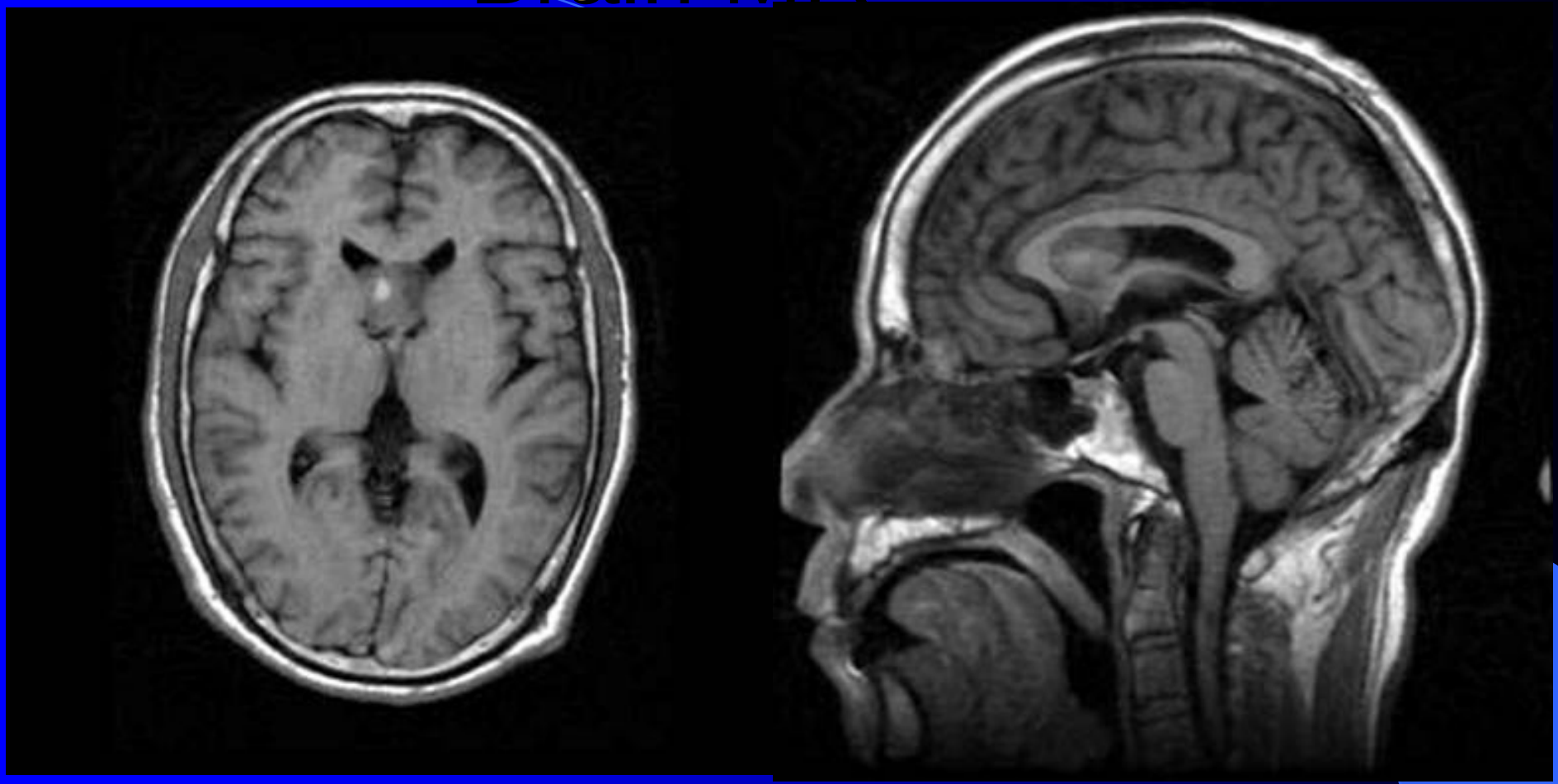
  cerebella sign: no positive finding

  Hoffman sign(-) Barbinski sign(-)

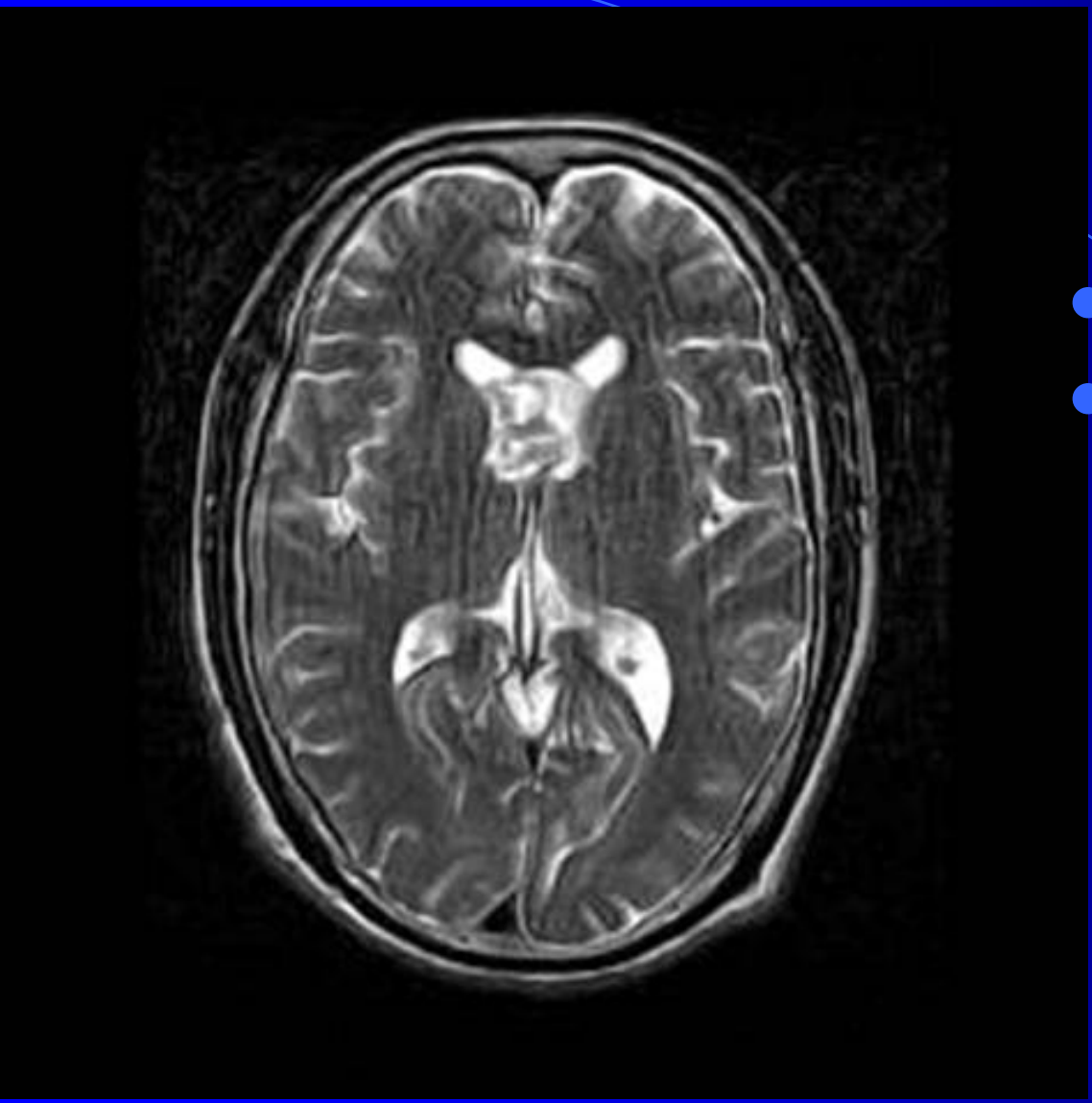
Laboratory

- WBC x10.e3/uL [4.8-10.8] 6.87
- RBC x10.e6/uL [4.2-6.1] 4.06
- HGB g/dL [12-18] 14.0
- HCT % [37-52] 39.4
- MCV fL [80-99] 97.1
- MCH pg [27-31] 34.5
- MCHC g/dL [33-37] 35.5
- RDW % [11.5-14.5] 12.3
- PLT x10.e3/uL [130-400] 232
- MPV fL [7.2-11.1] 5.8
- NEUT % [40-74] 56.2
- LYM % [19-48] 30.9
- MONO % [3.4-9.0] 5.6
- EOS % [0-7] 3.6
- BASO % [0-1.5] 0.5
- LUC % [0-4] 3.2
- 檢驗完成時間 10:39:18

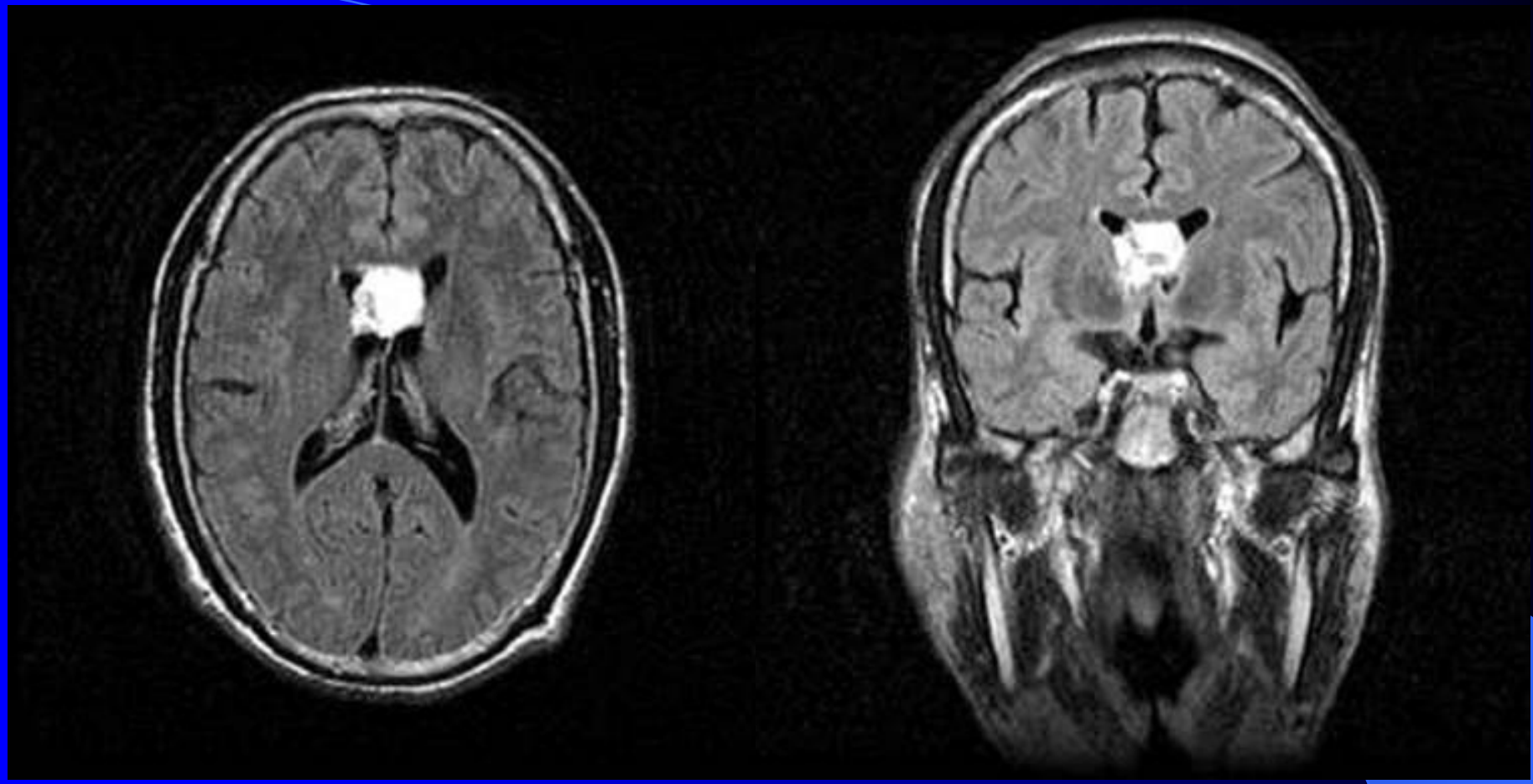
Brain MR



Intra-ventricular mass (about 13 x 20 x 22 mm in size) occupying the frontal horns of bil. lat. ventricles
Heterogeneous low signal intensity on T1WI
There is an intralesional high signal spot on T1WI



- Heterogeneous high
- signal intensity on T2WI



Heterogeneous enhancement of this mass
The mass is near the rt foramen of Monro, but no direct compreesion to foramen of Monro.

Differential diagnosis

- Ependymoma
- Choroid plexus papilloma
- Low-grade astrocytoma
- Central neurocytoma

Ependymoma

- 5% of primary brain tumor in adult
- Peak age: 5 and 35 years old
- Most from 4th ventricle (infra-tentorium)
- If supra-tentorium, most in parietal and occipital lobe
- Irregular surface
- May cause hydrocephalus

Ependymoma

- >CT heterogeneous low dense +/-
- hemorrhage, cystic areas, 40% calcified
- >MRI nonspecific hypo-signal in
- T1WI and hyper-signal in T2WI and
- heterogeneous enhancement

Choroid plexus papilloma

- Most common in first decade, 0.5% of all intracranial neoplasms
- Malignant degeneration 10-20% (imaging nondiagnostic)
- Trigone of lateral ventricle most common in children
- 4th ventricle most common in adult

Choroid plexus papilloma

- CSF seeding potential
- Overproduction of CSF- hydrocephalus
- resorption also impaired due to hemorrhage, increased protein content, +/- tumor pieces

Choroid plexus papilloma

- CT ---- homogenous, hyper- or iso-density
- MRI ---- heterogeneous
  lobulated, cauliflower like
  intermediate signal in T1, T2
  contrast enhancement
- Angiography ---- high vascular mass

Low grade astrocytoma

- 90% low-grade, 10% high-grade
- Young adult, with a peak incidence in the third to fourth decade of life
- White matter
- 15%~20% calcification
- Less hemorrhage or central necrosis or cystic change
- Mass effect

Low grade astrocytoma

- MRI ---- hypo-signal in T1WI
  hyper-signal in T2WI
  rare peripheral edema
  calcification
  homogenous in grade Ⅰ
  heterogeneous in grade Ⅱ Ⅲ Ⅳ
  Partial or ring enhancement

Central neurocytoma

- Central neurocytoma formerly intraventricular oligodendroglioma
- Predilection for young (<25), F slightly>M
- Usually attached to septum pellucidum near Foramen of Monro +/- ext to 3rd ventricle
- 50% with calcification, hypervascular, rare hemorrhage

Operation

- Craniotomy + removal of tumor, nearly totally under microscope
- Tumor with irregular surface, well-defined, non-capsular, soft in consistency, cystic component connection with anterior and lateral aspect of right lateral ventricle.
- 50% with calcification, hypervascular, rare hemorrhage

Pathology

- **Low grade glioma**