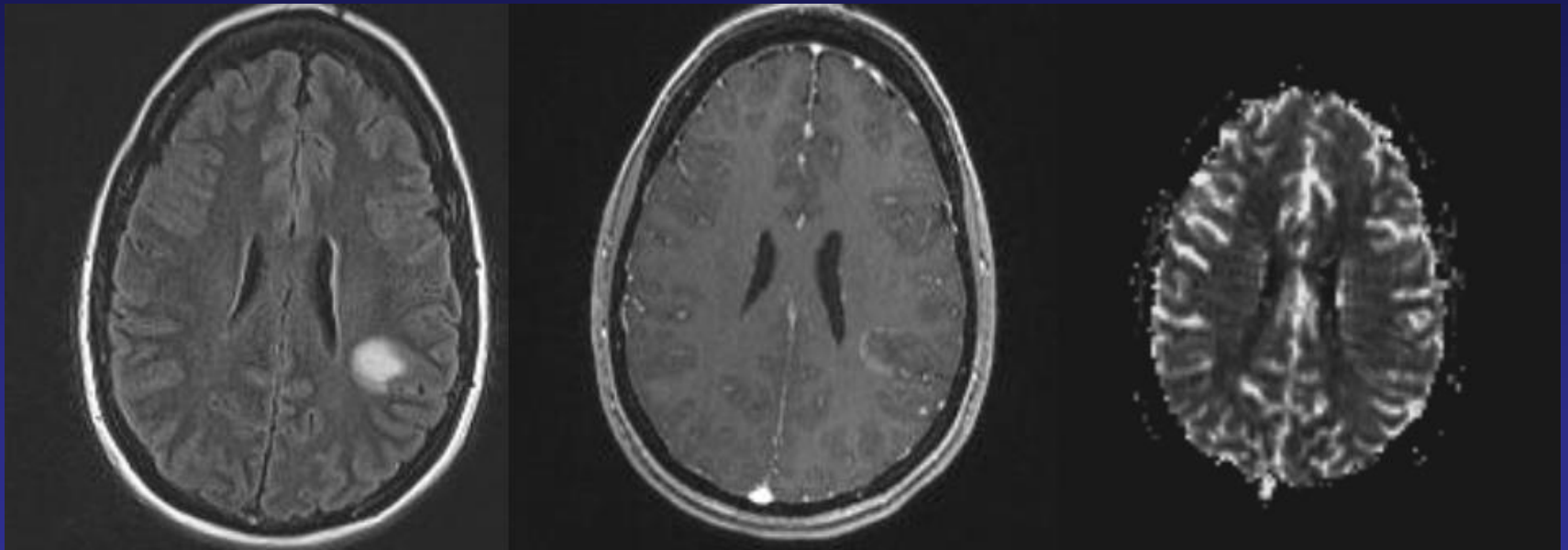


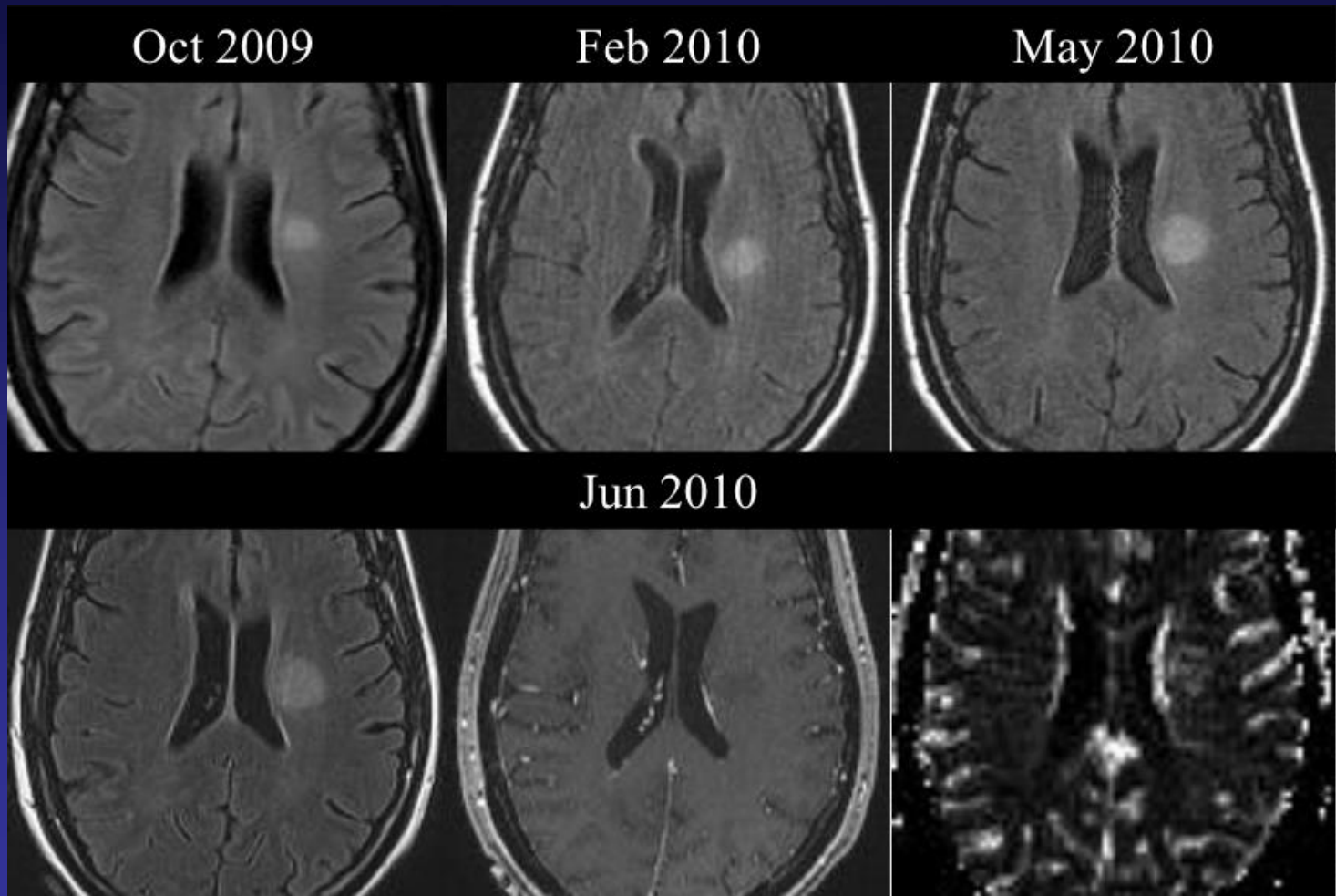
Tumefactive’ demyelination

- Incomplete rim-enhancement (“open ring”) is specific.
- Perfusion-weighted imaging: $rCBV < 2$
- Spectroscopy generally NOT helpful
 - Can be aggressive
 - May have restricted diffusion at ring
- Plaques can grow
- MS can get PML

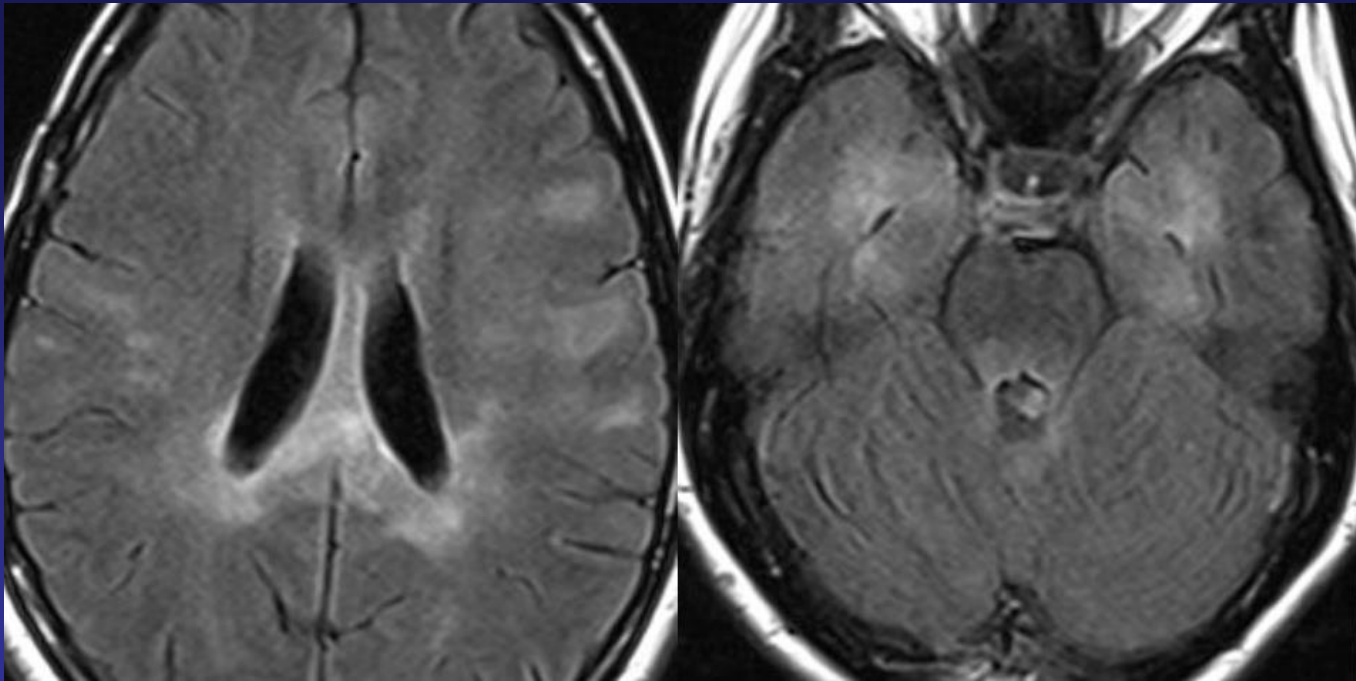
Tumefactive' demyelination



Glioma mimicking MS

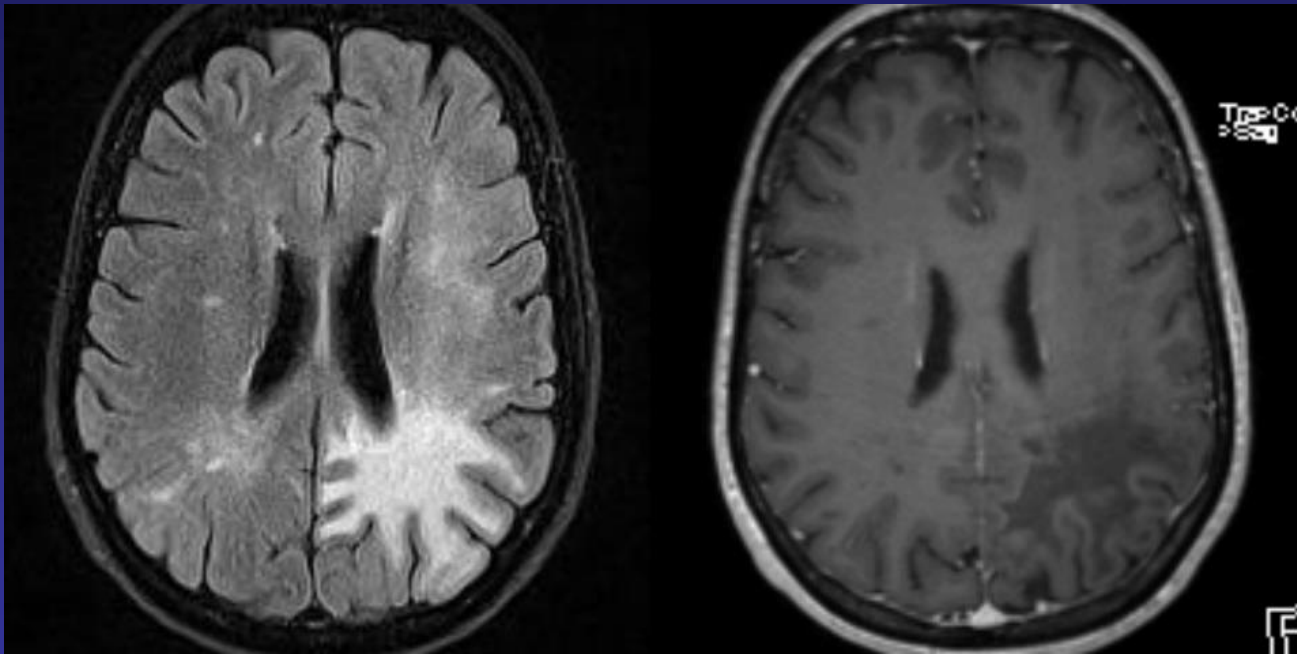


MS mimicking infiltrating glioma



MS with PML (on Tysabri)

- Natalizumab (Tysabri TM) recently has also been associated with PML, an IgG monoclonal antibody used in the treatment of relapsing remitting multiple sclerosis

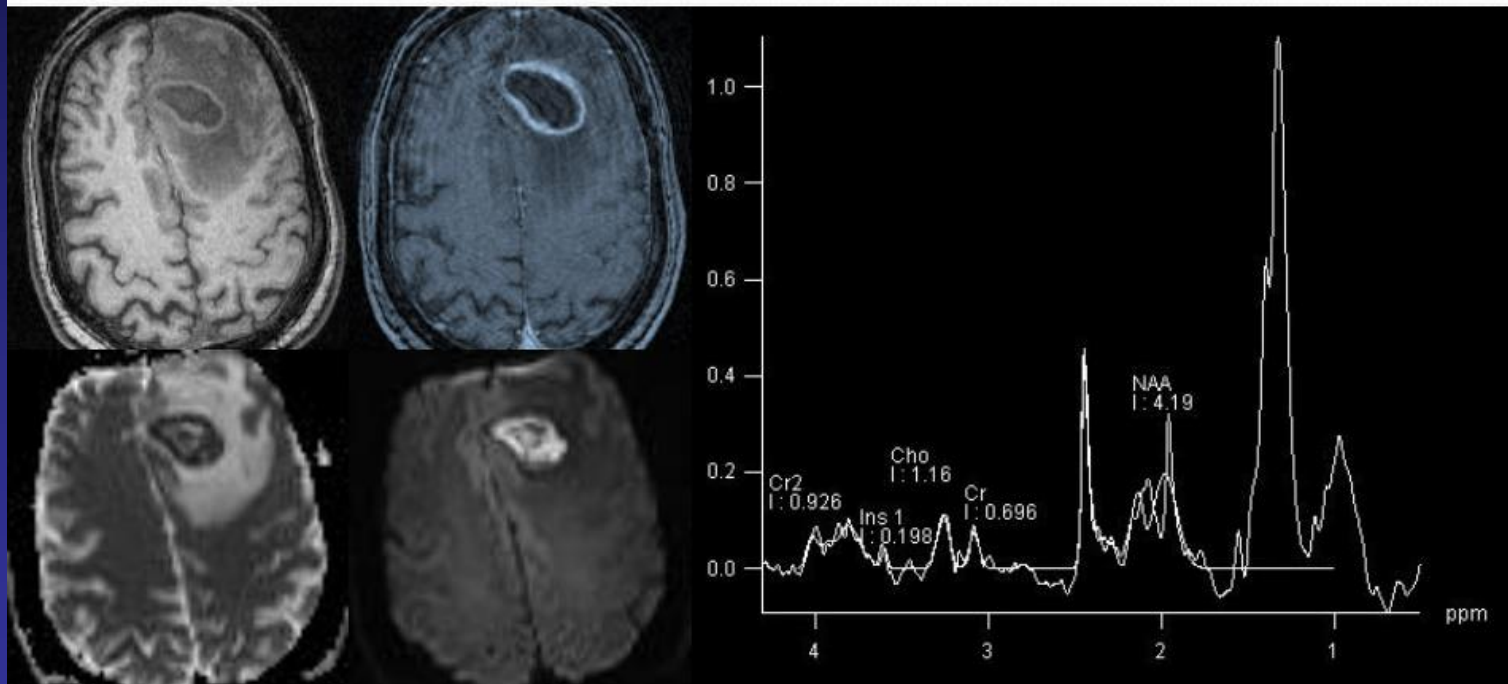


Abscess

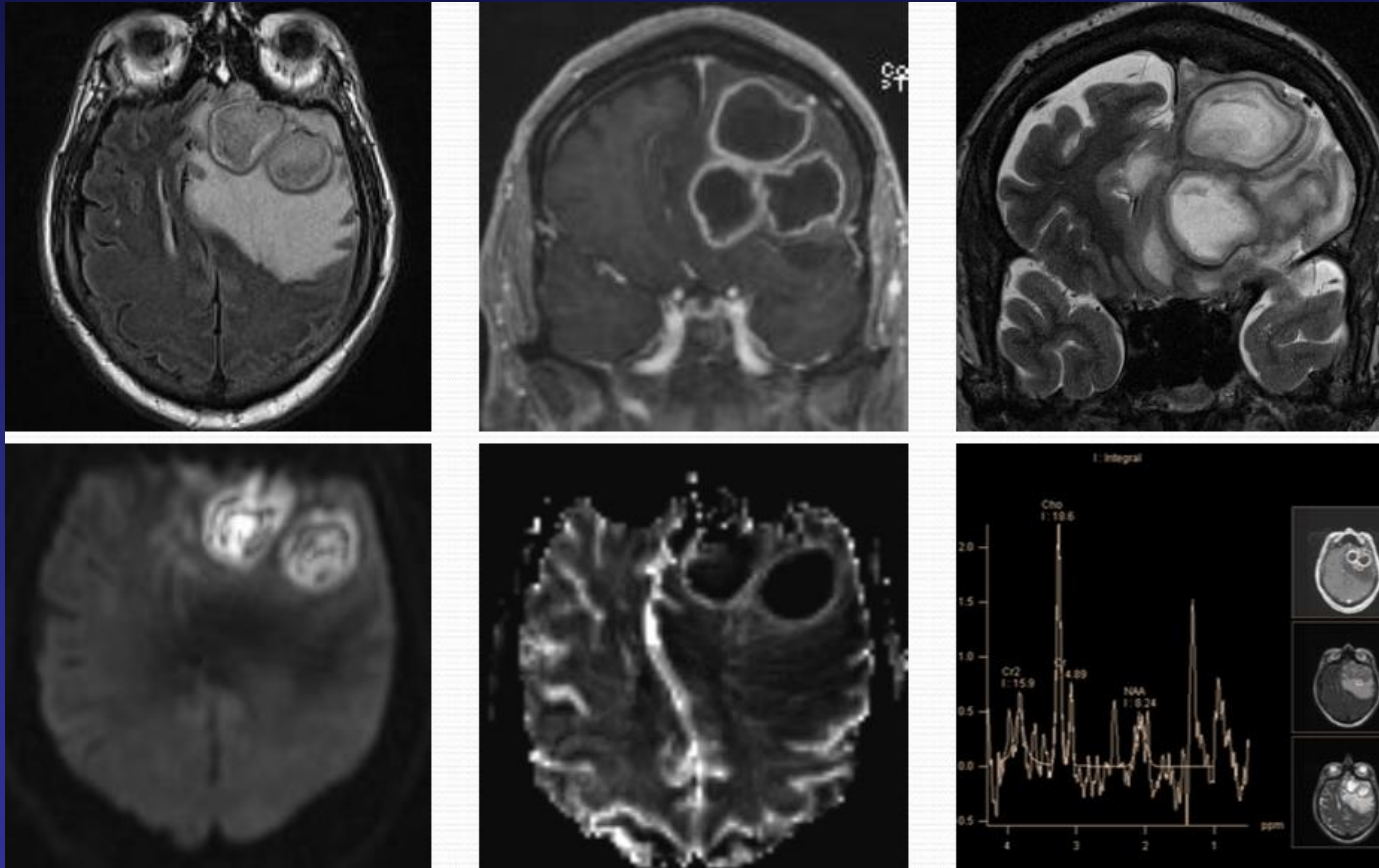
- MRS can be helpful
- Succinate at 2.4
- Lactate = 1.3
- Generally Decreased CBV in enhancing rim, not always
- Fungal may not have restricted diffusion.

Actinomycotic abscess

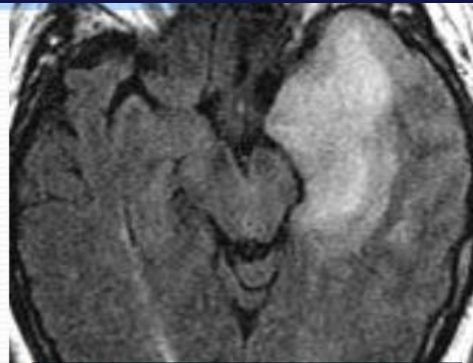
■ Lipid/lactate (1.3), succinate (2.4 ppm), acetate (1.9 ppm), amino acids (0.9 ppm)



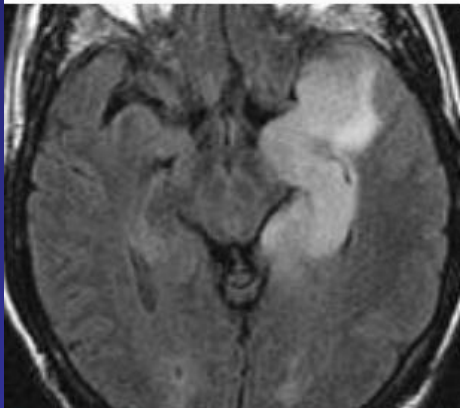
Abscess Mimicking Neoplasm



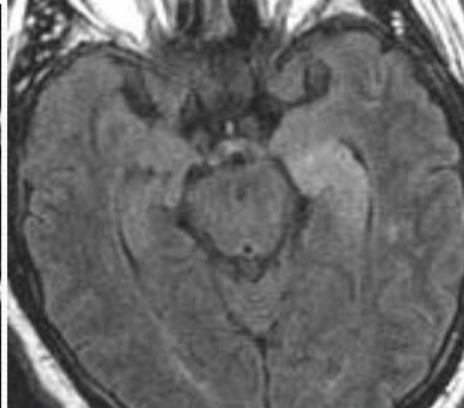
Herpes + mimics



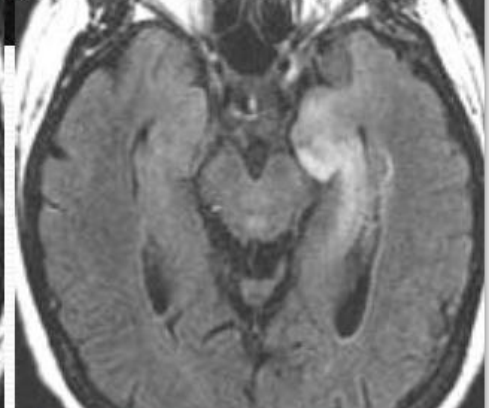
Herpes encephalitis



Astrocytoma

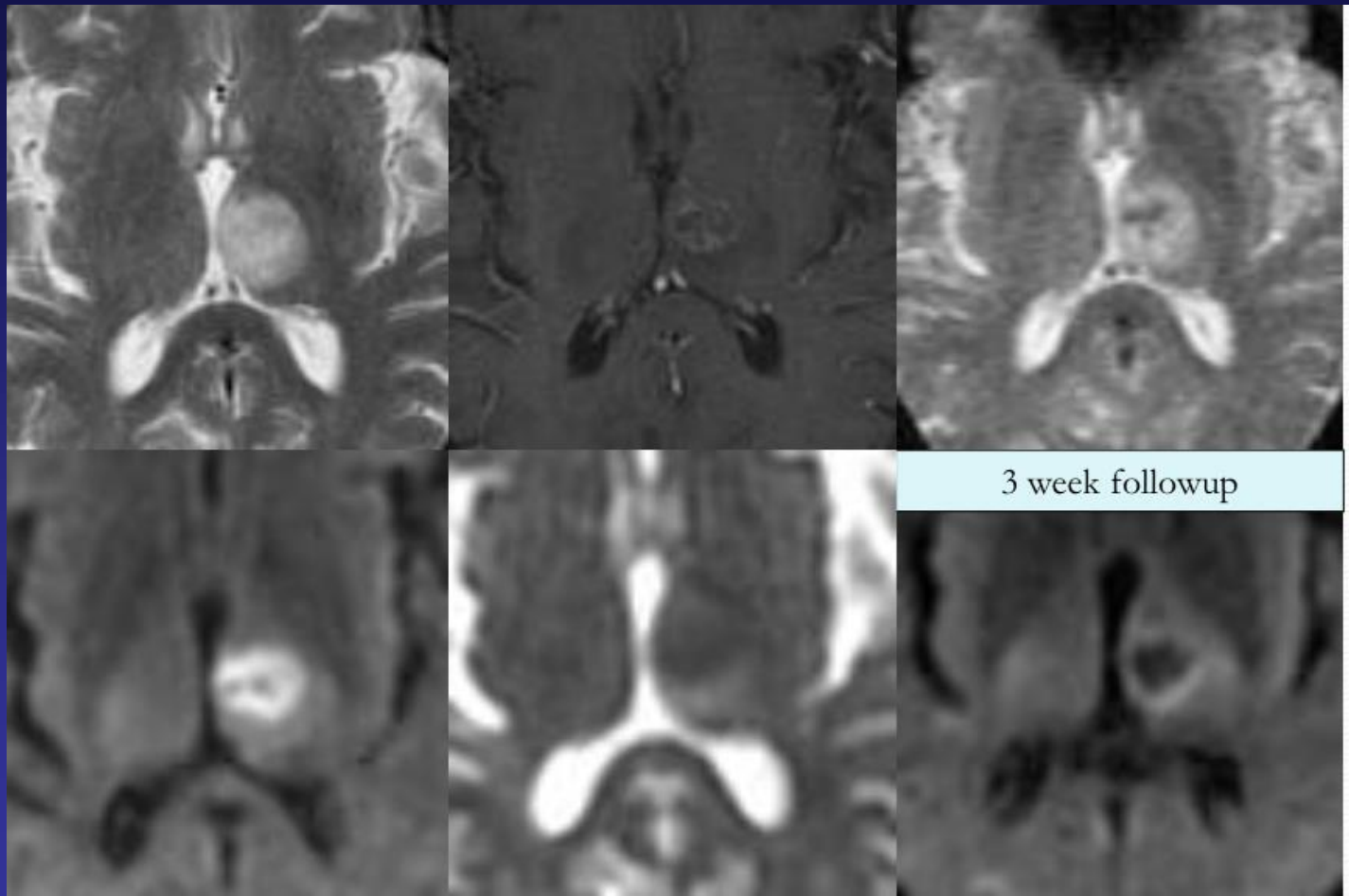


Limbic encephalitis

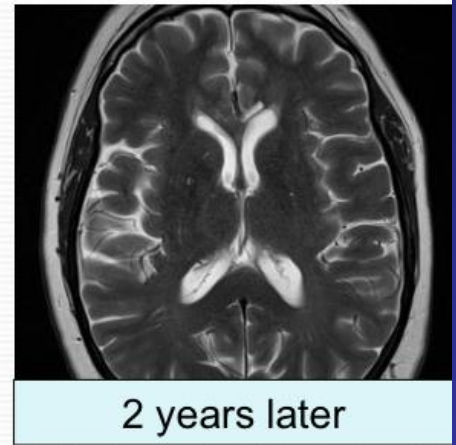
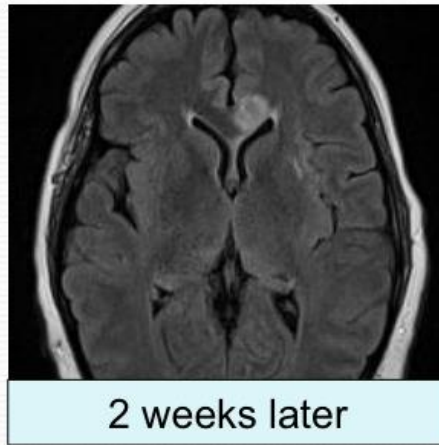
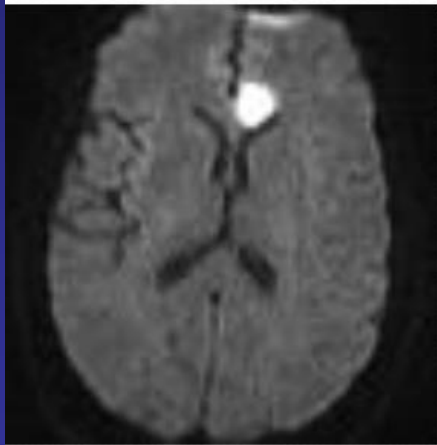
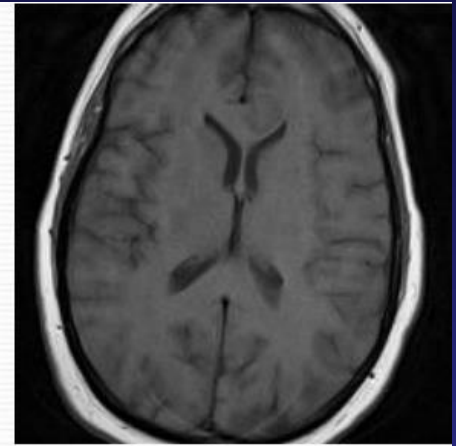
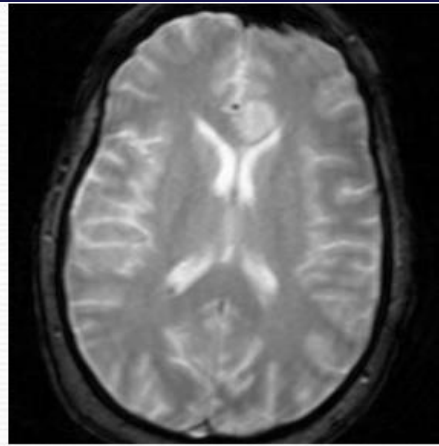
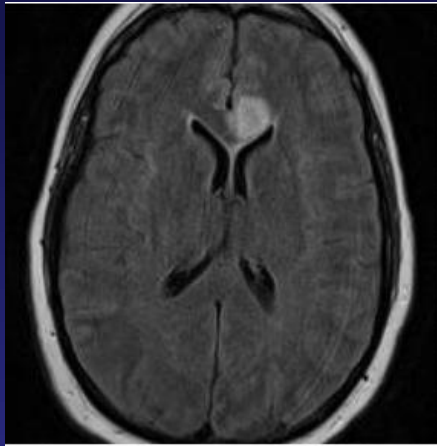


Seizure activity

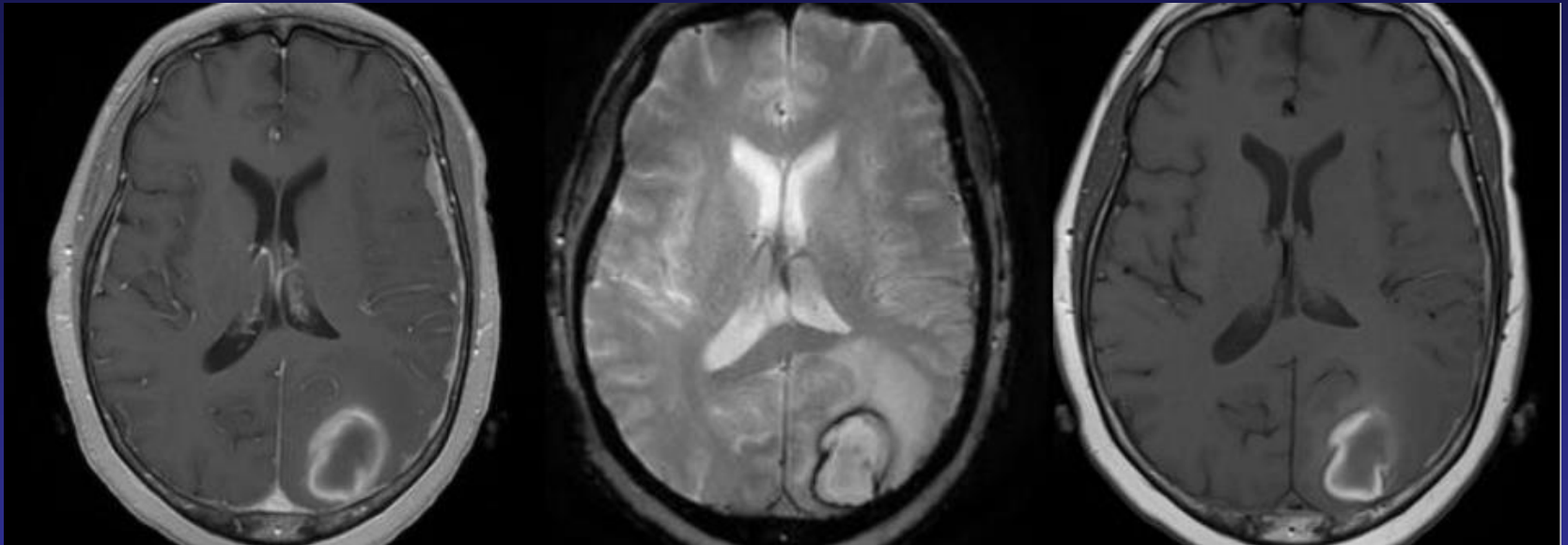
Thalamic Infarct



Mass like infarct



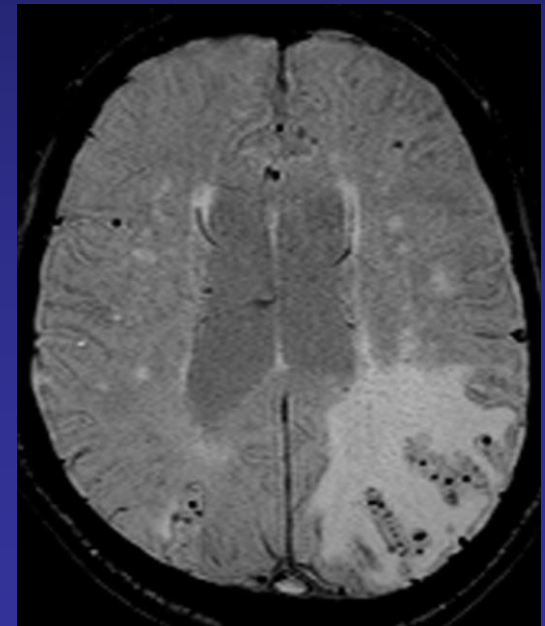
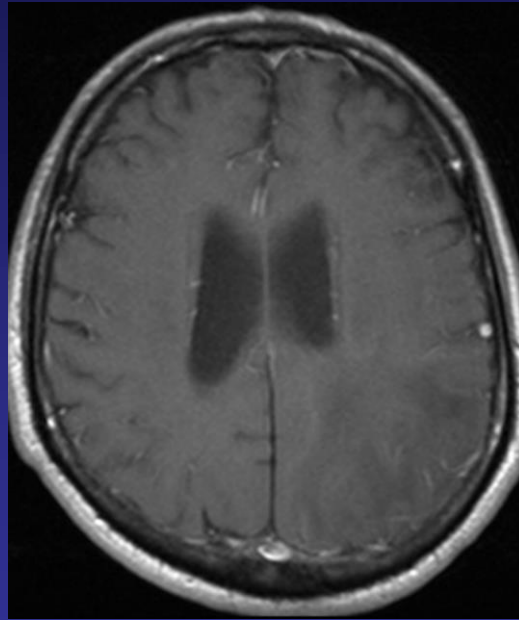
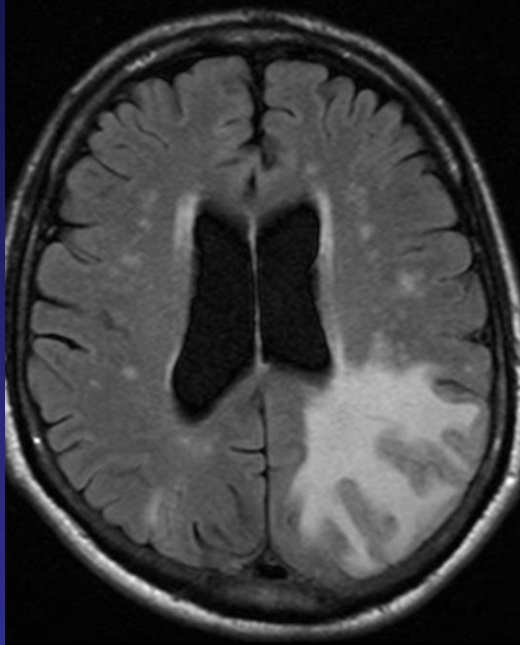
Hematoma – rim enhancement



Inflammatory or “tumefactive” amyloid angiopathy

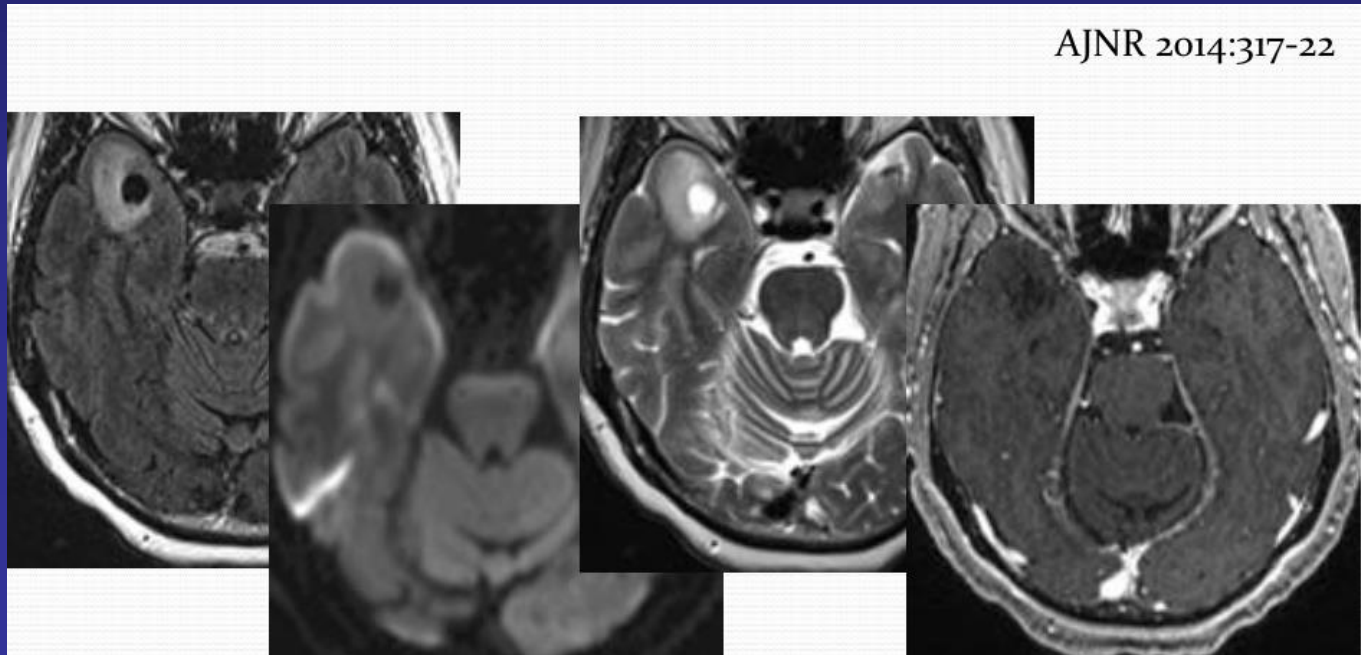
- Mass lesions in amyloid
- Non-enhancing
- meningeal enhancement. • Negative DWI
- Steroid-responsive
- May look like low grade glioma with signs of amyloid

Tumefactive variant of CAA

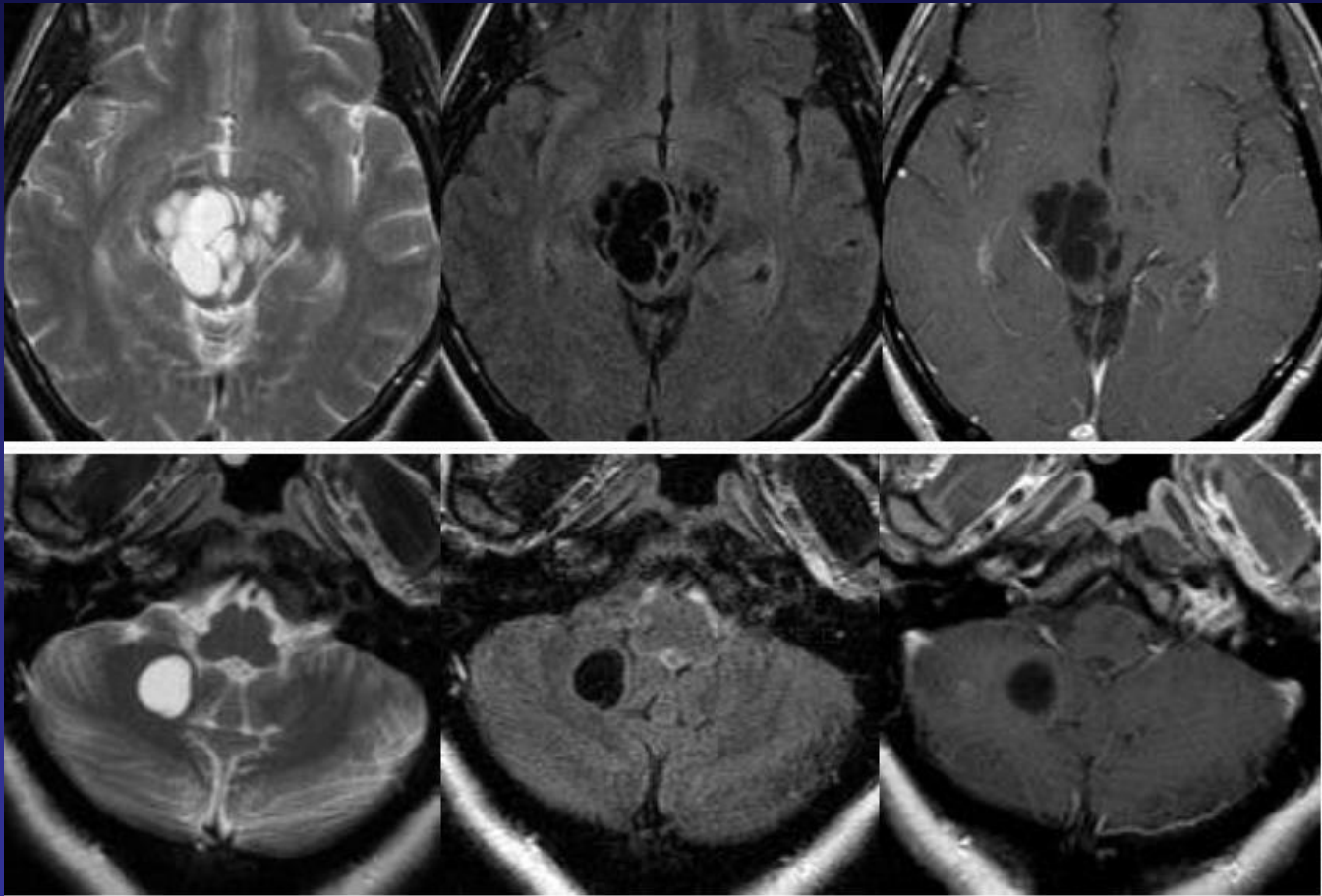


Giant PV space of temporal lobe

- Unlike other PV spaces, may have surrounding signal
- No enhancement or DWI



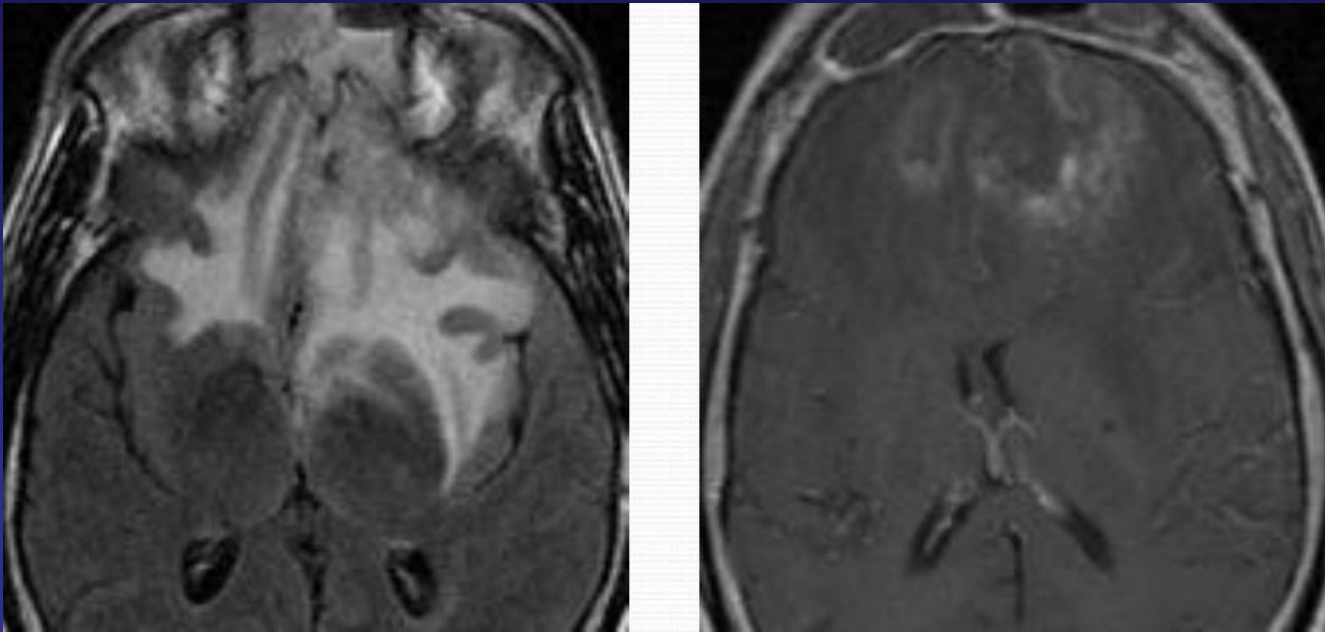
Giant perivascular spaces



Radiation injury

- Unfortunate mimic of recurrent glioma
 - Late delayed injury: usually months after treatment
 - Irregular enhancement, necrosis, mass effect
- Pseudoprogression: XRT+temodar, earlier (<12 weeks)
- Rarely, tumefactive cysts may form (AJNR May 2005)
 - Late complication (years) of AVM radiosurgery
 - Thin enhancing wall, \pm adjacent heterogeneous enhancement

Radiation necrosis



Tumefactive cyst after AVM radiation

