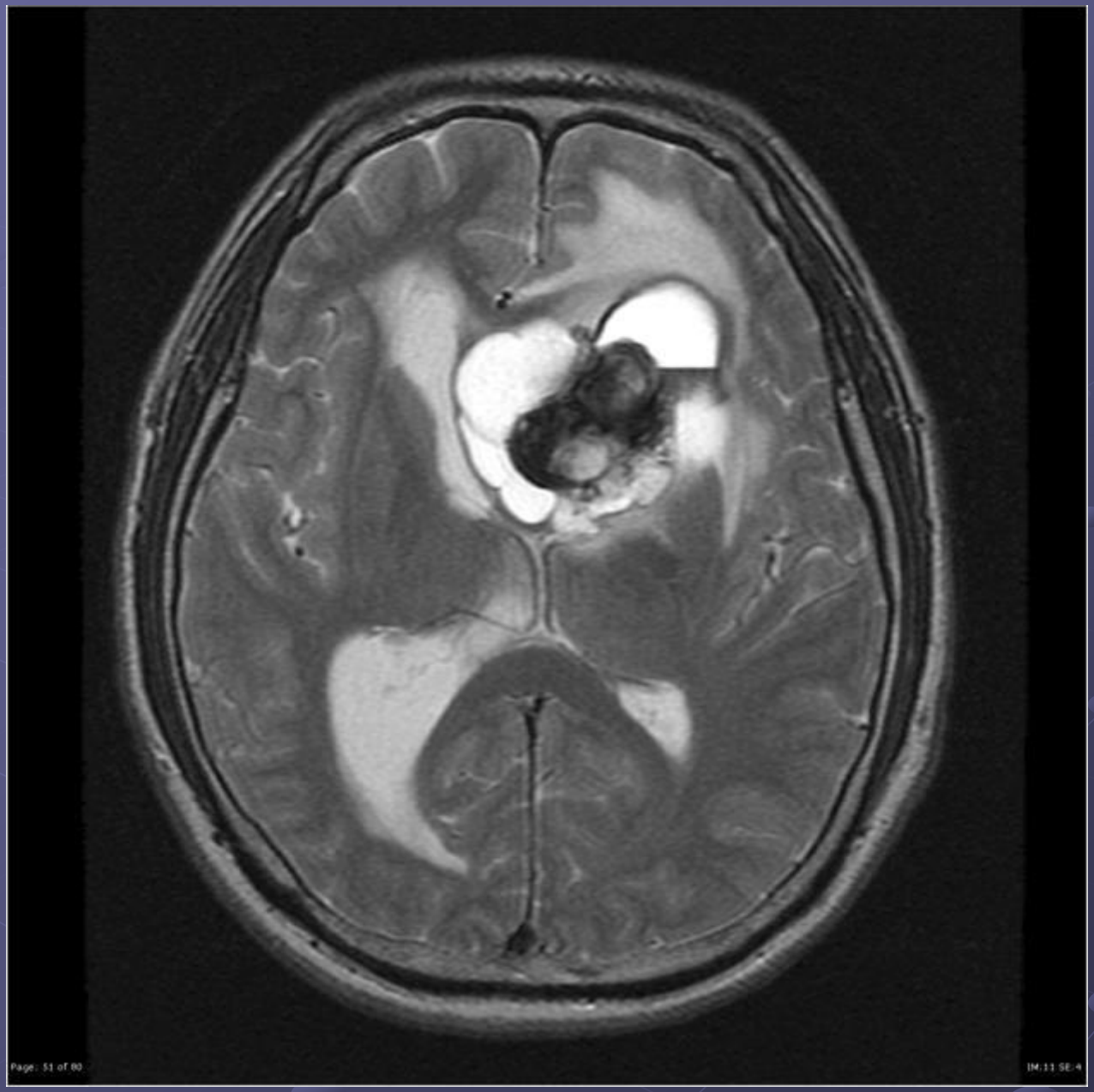
Ependymoma

- 1/3 supratentorial: Periventricular white matter
- 2/3 infratentorial: 4th ventricle/cisterns
- Soft or plastic tumor: Conforms to ventricle & extends through foramina into cisterns
- Variable heterogeneous enhancement
- Requires combination of imaging & clinical findings to distinguish from medulloblastoma (MB)

Age

- Infratentorial ependymoma: Bimodal distribution
  - Molecular subgroup A: Usually young children
  - Molecular subgroup B: Usually teenagers/young adults
- Supratentorial ependymoma: Usually older children/young adults (3rd decade)

Sagittal T1 C+ MR shows a diffusely enhancing mass obstructing the 4th ventricle. The interface of the mass with the floor of the ventricle (which is the dorsal surface of the brainstem) is less distinct than with the roof, typical of ependymoma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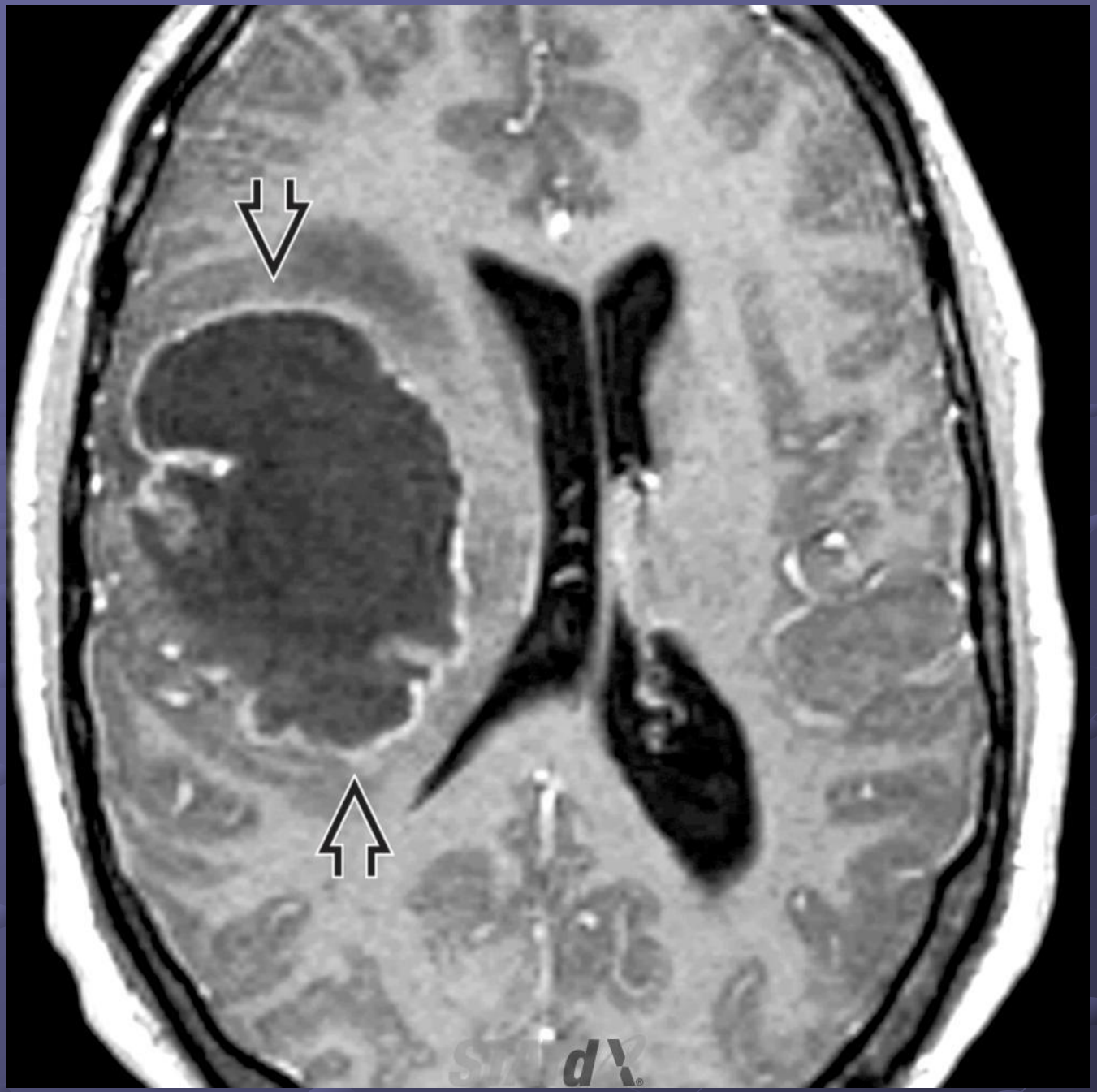
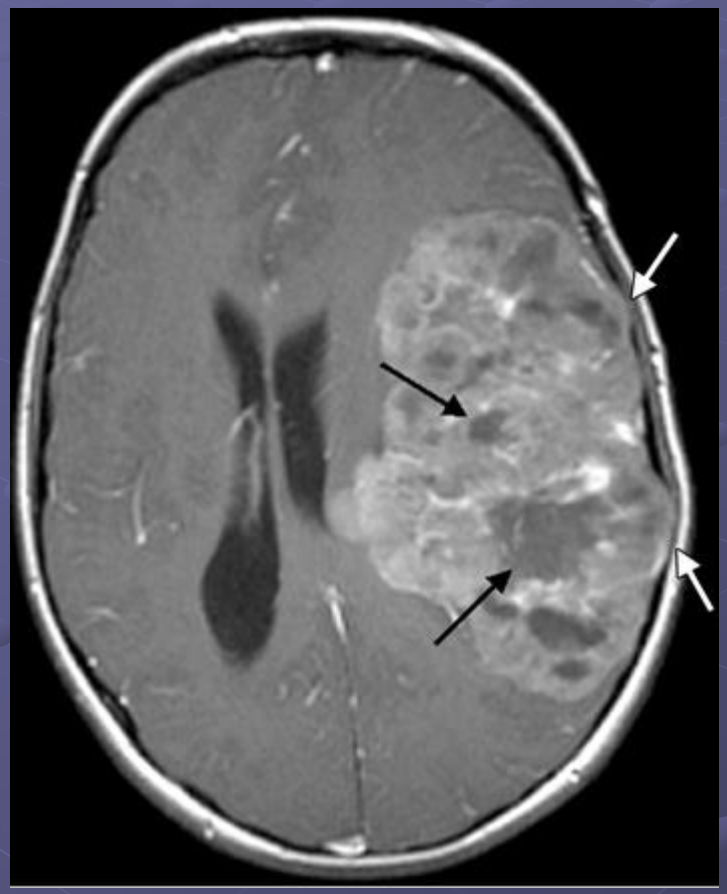


Axial T1WI C+ MR in the same patient shows peripheral enhancement around a nonenhancing cystic component (black open arrow). STE was found at surgery. This STE does not show any contiguity with the ventricular system.

Ependymoma

- Often cystic with Ca+



DDX:

- Differential diagnosis for lesions with the appearance of an extraventricular supratentorial ependymoma
  - Astrocytoma (both low grade and glioblastoma multiforme),
  - Supratentorial primitive neuroectodermal tumor,
  - Gangliogliomacytoma
  - Oligodendroglioma
- World Health Organization (WHO) grade II lesions