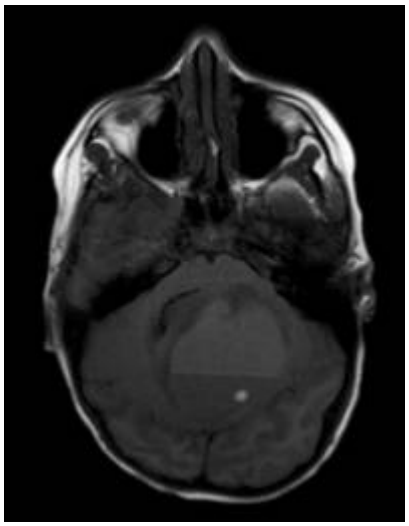
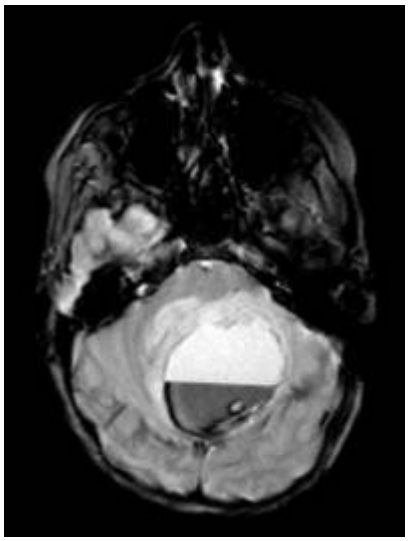
Posterior fossa ependymoma MRI

T1



Solid portions of intracranial ependymoma typically are isointense to hypointense relative to white matter [1)]

T2



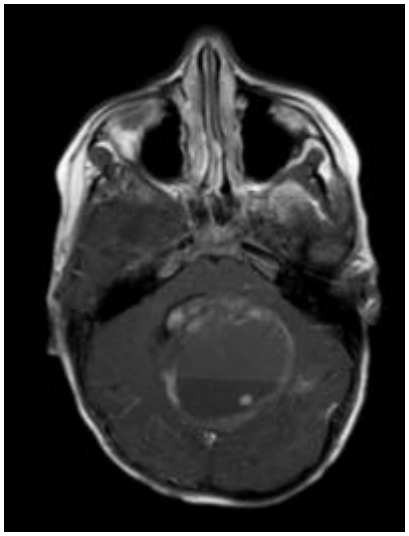
Hyperintense to white matter

More reliable in differentiating tumor margins than non-contrast T1-weighted images (but less reliable than contrast enhanced T1)

T2* (e.g. SWI)

Foci of blooming from hemorrhage or calcification

T1 C+ (Gd)



Enhancement present but heterogeneous

Enhancement with gadolinium is useful in differentiating tumor from adjacent vasogenic edema and normal brain parenchyma.

DWI/ADC

Restricted diffusion may be seen in solid components, especially in anaplastic tumor

Diffusion should be interpreted with caution in masses with significant hemorrhage or calcification

MRS

Choline peak elevation according to the cellularity of tumor

NAA peak reduction

Elevated Cho/Cr ratio

Lipid and lactate rise when degeneration occurs

Although it is uncommon when compared to tumors like medulloblastomas, careful examination of the entire neuraxis is required to assess for the presence of CSF seeding.

1)
Smith A, Smirniotopoulos J, Horkanyne-Szakaly I. From the Radiologic Pathology Archives: Intraventricular Neoplasms: Radiologic-Pathologic Correlation. Radiographics. 2013;33 (1): 21-43. Radiographics (full text) - doi:10.1148/rg.331125192