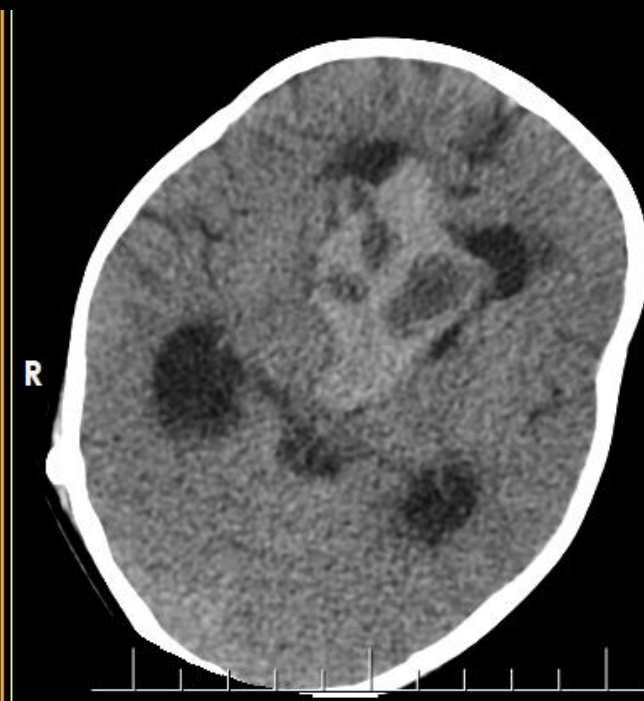
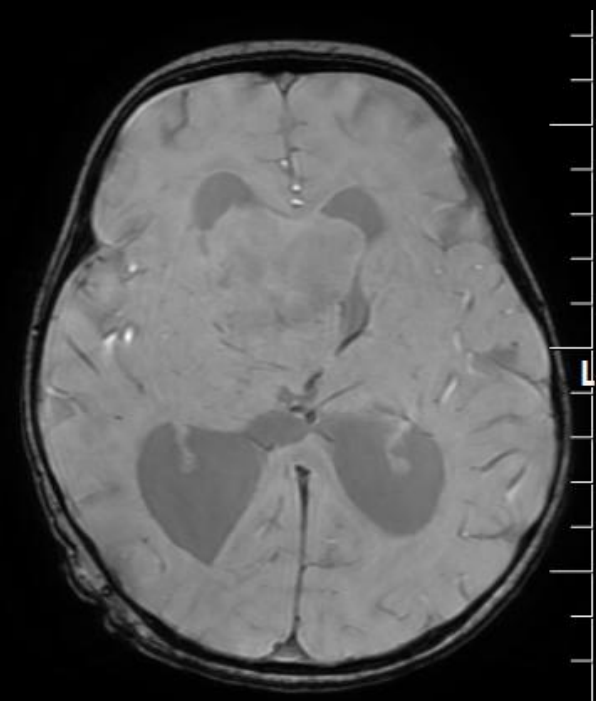
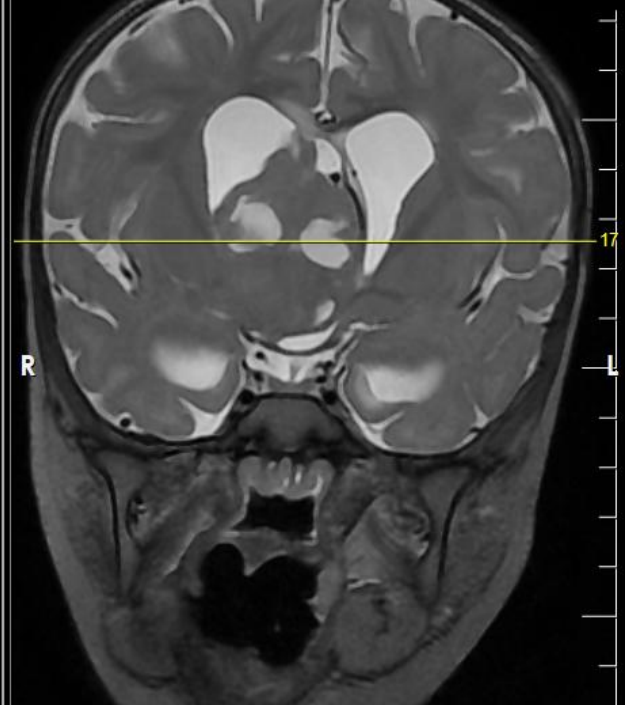
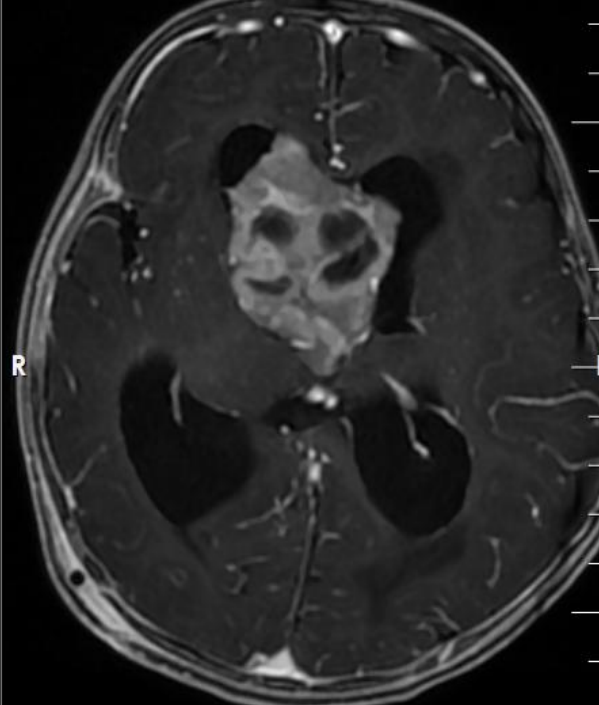




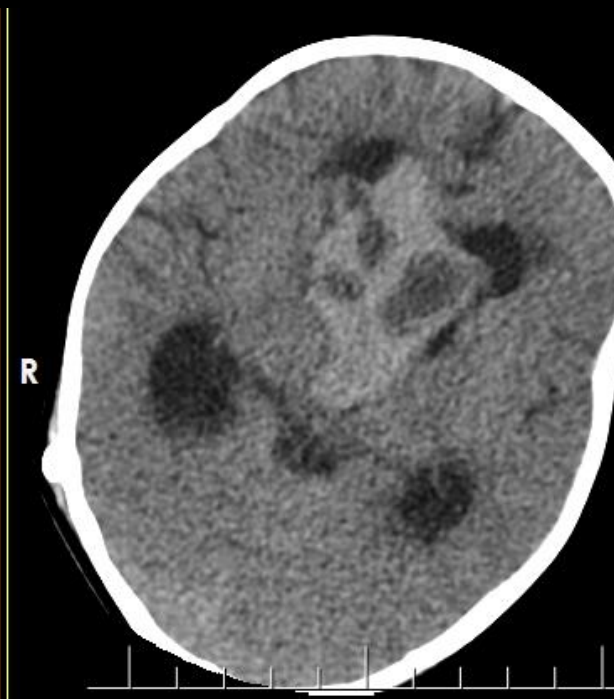
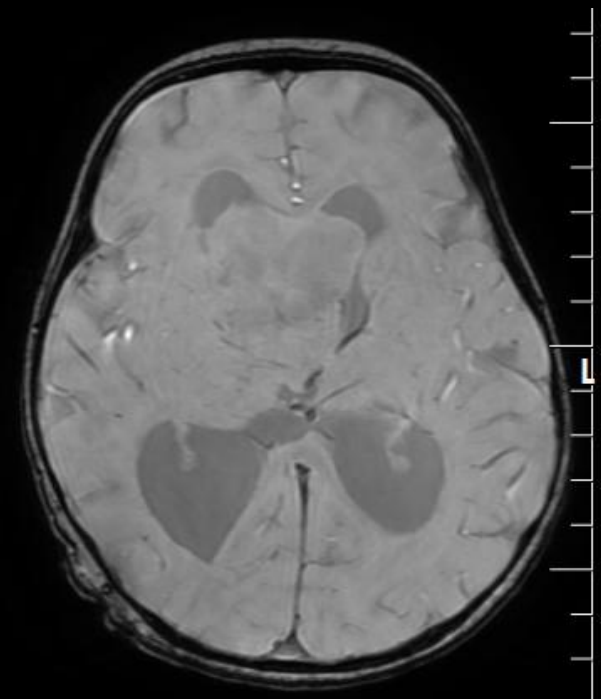
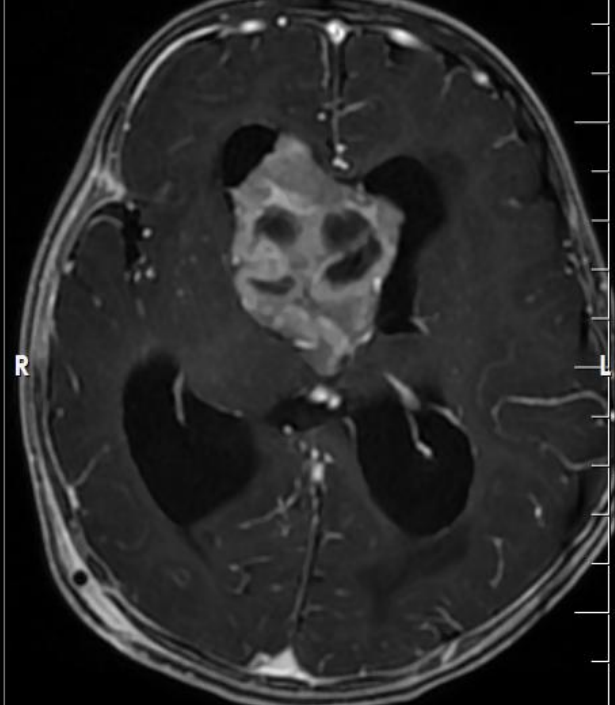
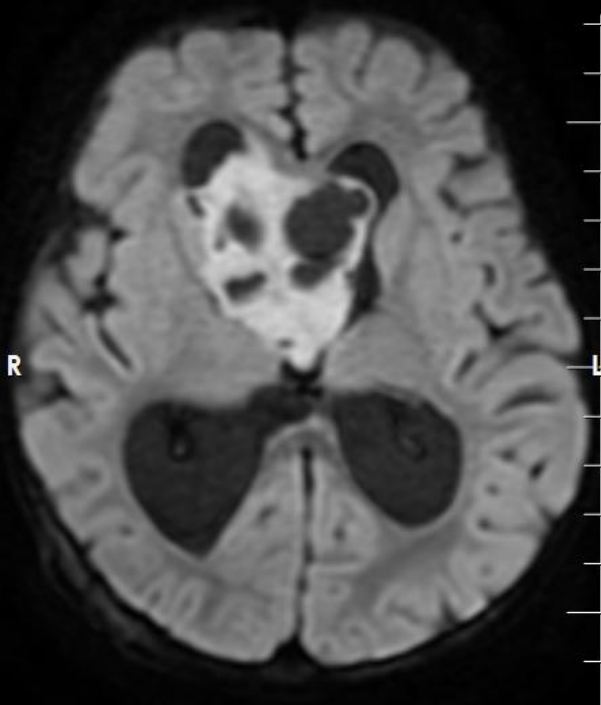
2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

SJMCH, Bengaluru
Contributor of the Series



9 year female
Diagnosis?



Supratentorial hydrocephalus with periventricular ooze due to an intraventricular SOL extending into the third ventricle; the lesion shows markedly reduced diffusion, T2 intermediate signal solid component with few cystic areas, enhancing solid component. No chunky calcifications. On correlation CT, the soft tissue appears to be hyperdense.

Differentials to consider – Small round cell morphology such as ependymoma, embryonal tumors unlikely central neurocytoma.

Supratentorial ependymoma

- Supratentorial ependymomas are rare glial tumours arising in the cerebral hemispheres, either within brain parenchyma or adjacent to (or involving) ventricular margins.
- They occur primarily in children and adolescents, though adults may also be affected.
- Two major subtypes are recognised — ZFTA (often previously termed RELA) fusion-positive and YAP1 fusion-positive.
- Tumours are heterogeneous masses, often showing mixed solid and cystic components, calcifications, necrosis, and variable enhancement. Periwinkle (or “stellate”) sign: On non-contrast CT in some cases, centripetal calcification around a central necrosis gives a “periwinkle flower” appearance, sometimes with a peripheral cyst likened to a leaf.
- Location patterns: ~70% of supratentorial ependymomas are extraventricular (i.e. intraparenchymal) rather than strictly intraventricular.
- The ZFTA-fusion subtype tends to have a worse prognosis compared to YAP1-fusion subtype.
- Gross total resection when feasible is the goal, often followed by radiotherapy. Recurrence is common, and outcomes depend heavily on molecular subtype, extent of resection, and adjuvant therapies.
- Differential diagnosis: Because imaging features are not entirely specific, other tumours to consider include high-grade gliomas, embryonal tumours (e.g. atypical teratoid/rhabdoid), and circumscribed gliomas like astroblastoma, especially in pediatric cases.

Contributor

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