KREP

2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

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MODERATOR: DR RAHUL S

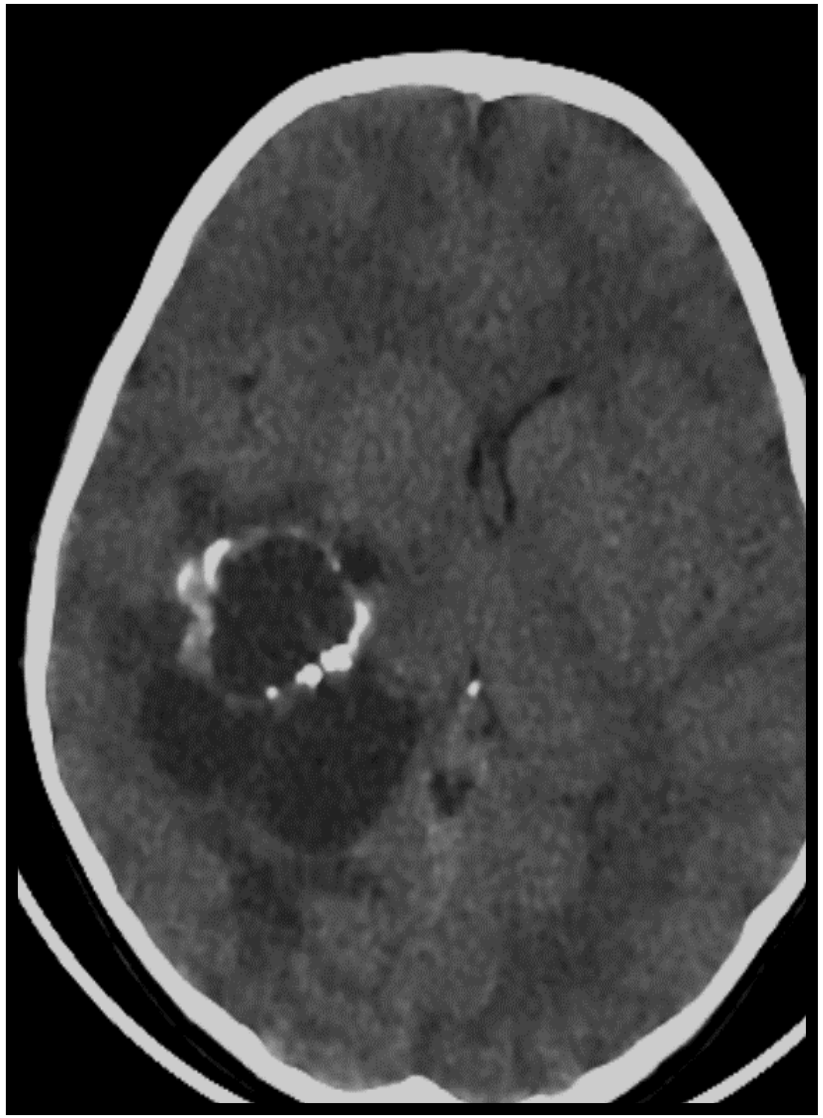
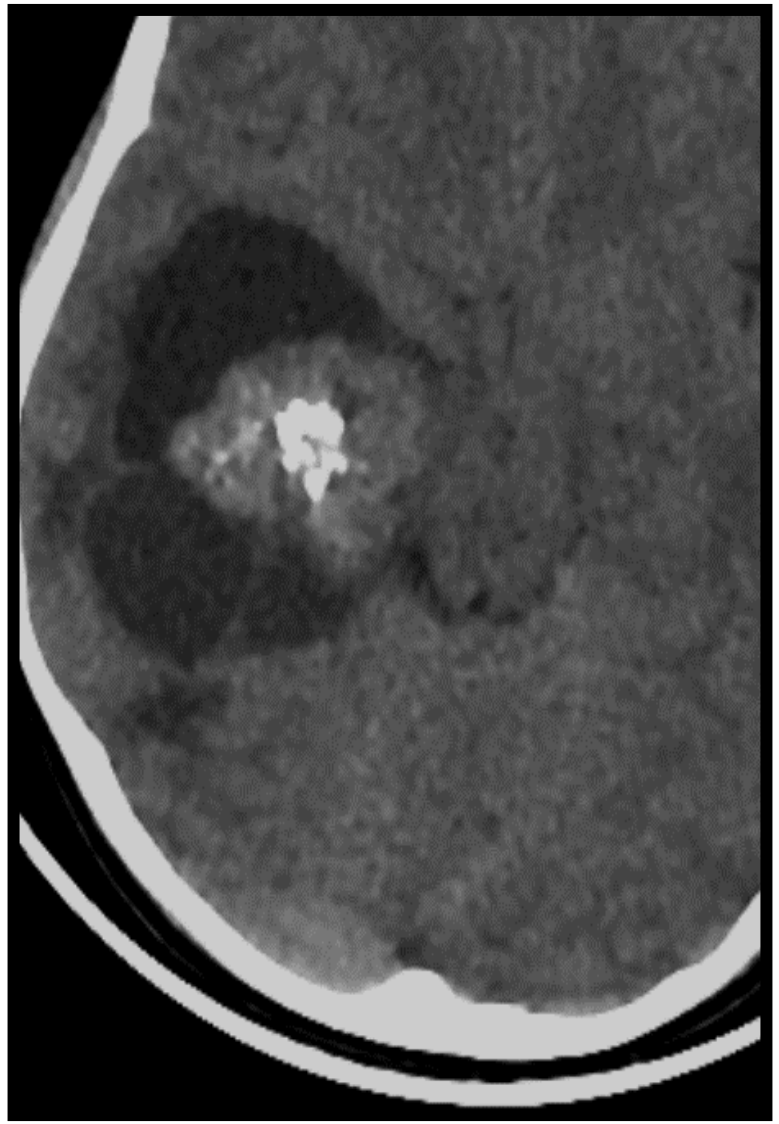
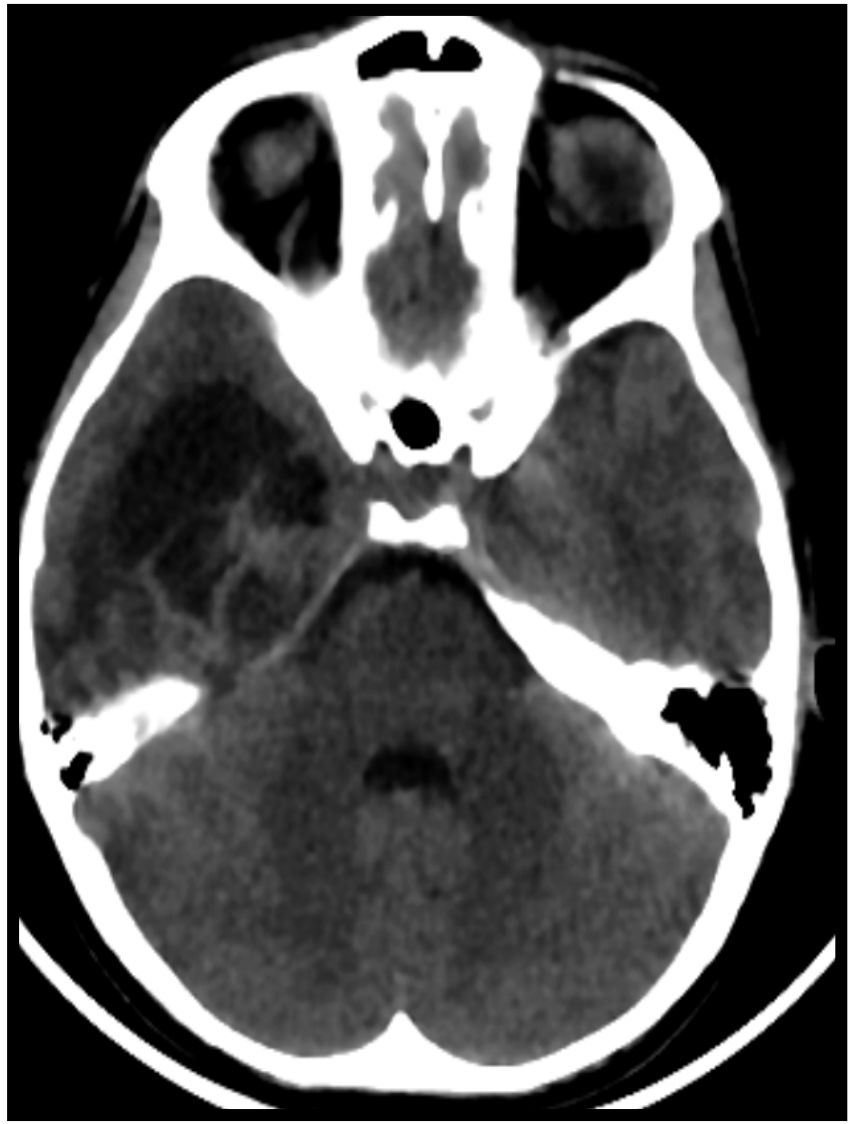
ASSISSTANT PROFESSOR,DEPT OF RADIDIAGNOSIS

JJMMC, DAVANGERE

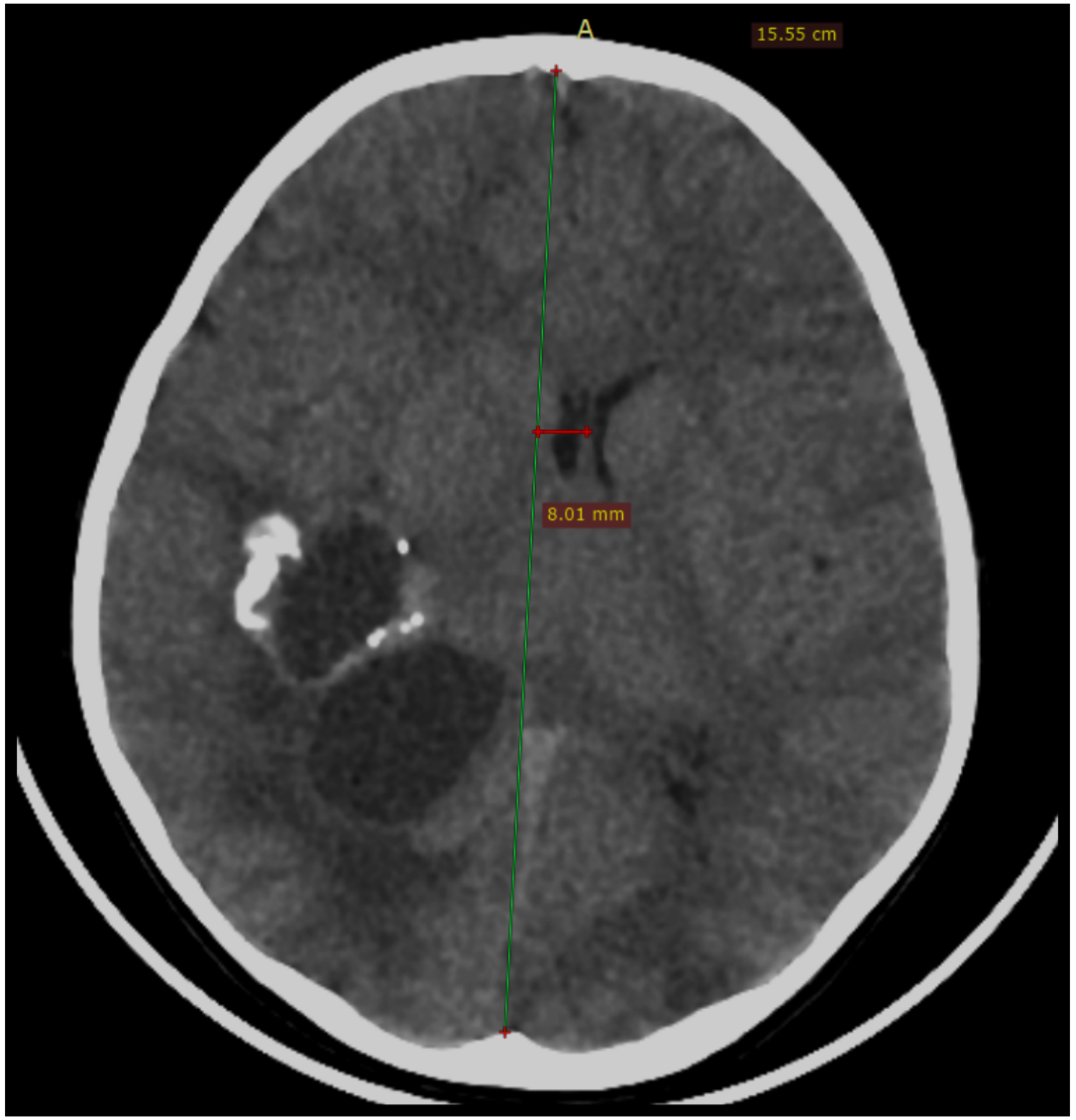
PRESENTOR: Dr Ravichandra, PG resident

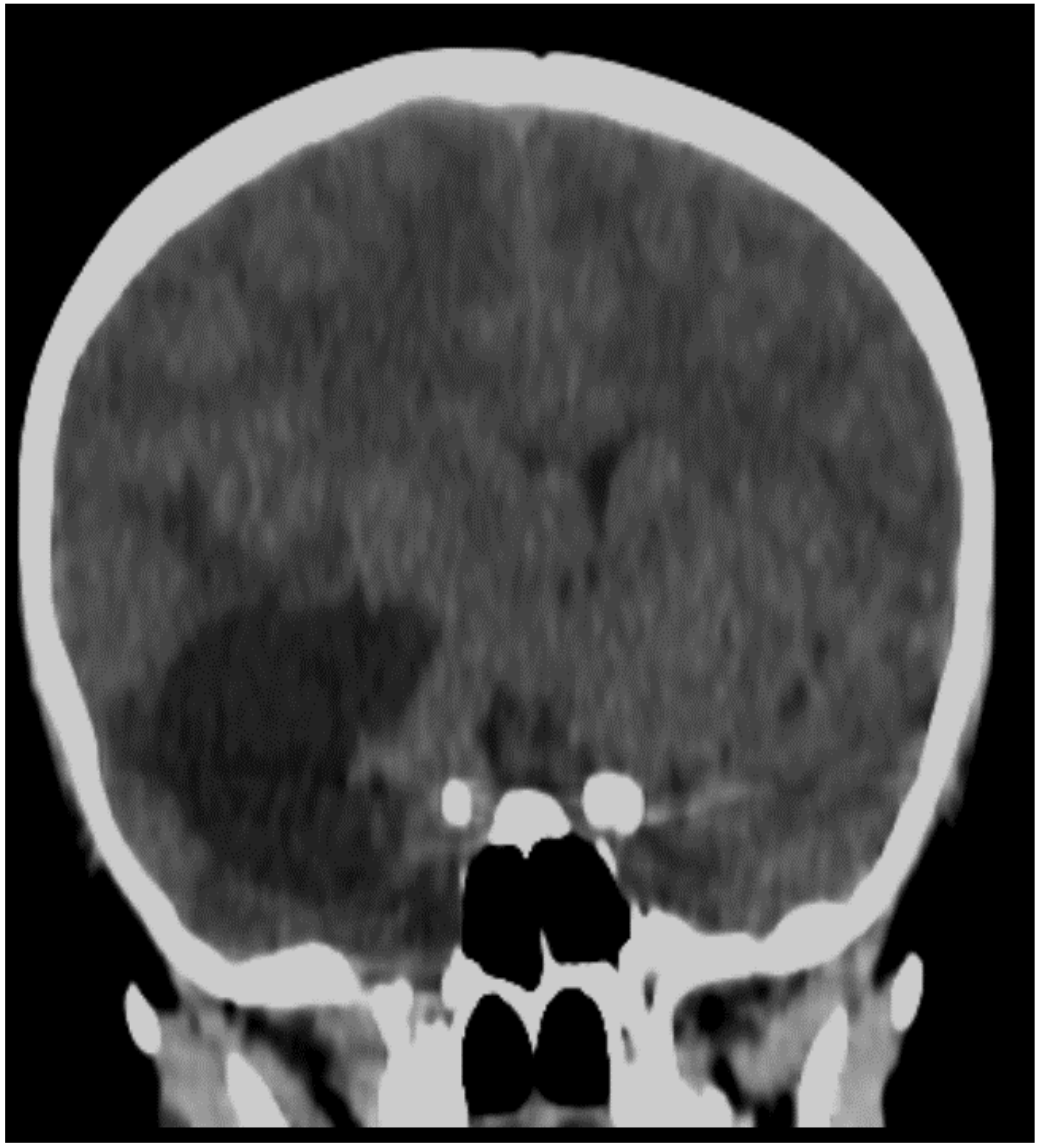
HISTORY

- **Patient Profile:**3-year-old male child
- **Presenting Complaints:**
- Headache associated with projectile vomiting
- One episode of generalized tonic-clonic seizure (GTCS), followed by postictal drowsiness
- **Clinical Course:**
- Admitted to PICU following the seizure episode
- **Past History:**
- No significant past medical history, No relevant family history
- Normal birth history, Developmentally appropriate for age
- **Laboratory Investigations:**
- Total leukocyte count (TLC): 12,820 cells/cc (raised)
- Serum electrolytes: Within normal limits

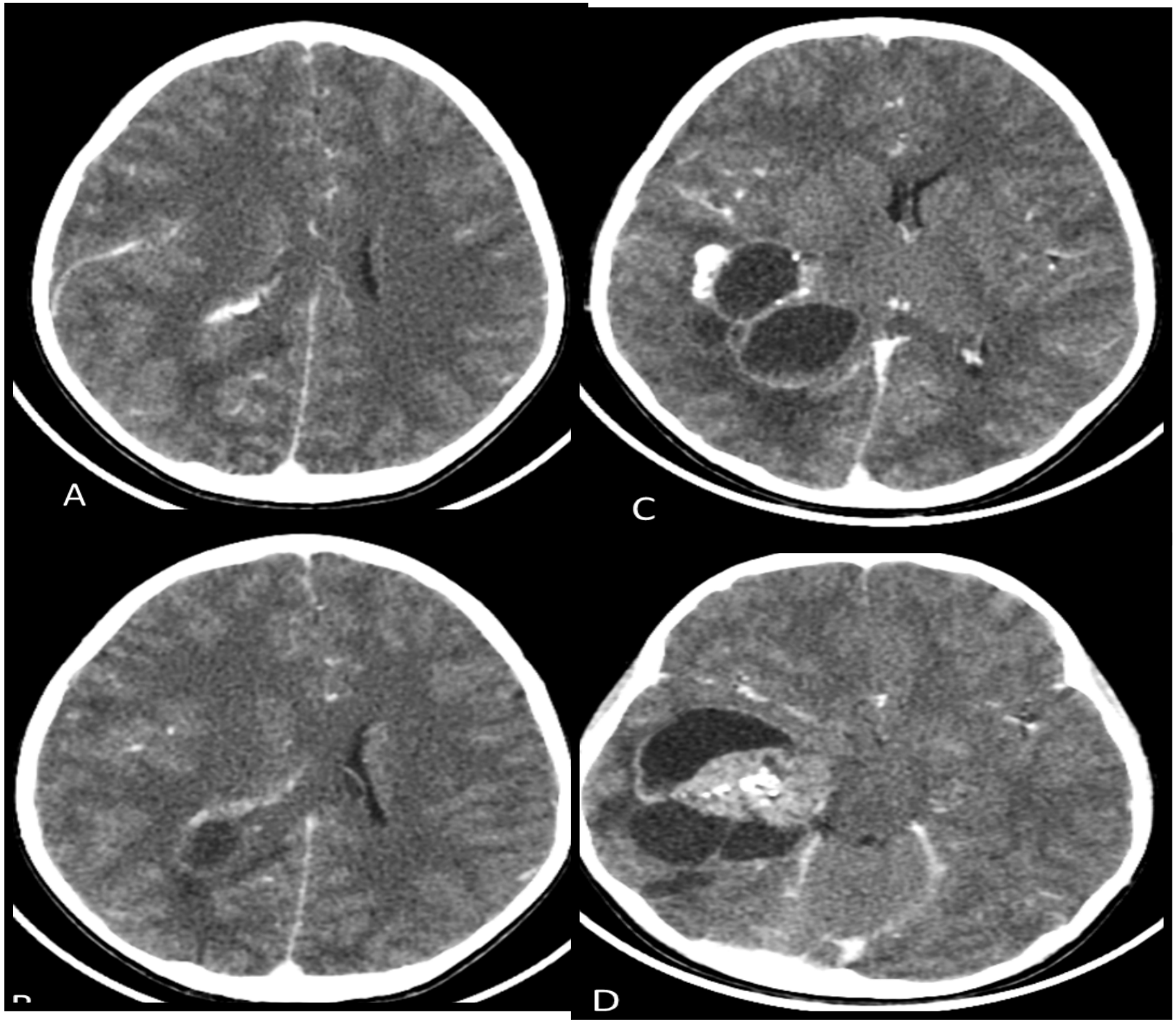




On NCCT brain axial section- A Well-defined Multicystic intra-axial lesion with a solid component noted in right temporo-occipital lobe measuring 4.8x5.5x7.0cm (CCxTRxAP).
The solid component showing multiple specks of calcification at the centre and cystic component showing peripheral rim calcifications giving periwinkle appearance. ,.





The lesion is showing mass effect in the form of compression on body, temporal horn and occipital horn of the right lateral ventricle, with effacement of sulcal and CSF spaces in bilateral cerebral hemispheres. There is midline shift to left with subfalcine,uncal herniation and compression on midbrain and pons.



<u>On post contrast study:</u> avidly enhancing solid component with cystic component showing minimal peripheral enhancement. Also there was increased enhancement of choroid plexus of right lateral ventricle, seen in continuity with the cystic component of the lesion.

DIAGNOSIS:

Well-defined multicystic intra-axial mass lesion with central calcified enhancing solid component in the right temporo-occipital lobe causing significant mass effect, midline shift, and herniation

Differentials diagnosis

- **Supratentorial Ependymoma(More likely)**
- **Embryonal Tumor with Multilayered Rosettes (ETMR)**
- **Atypical Teratoid/Rhabdoid Tumor (ATRT)**

HPE REPORT:
Post craniectomy

National Institute of Mental Health and Neuro Sciences
Hosur Road, Bengaluru , 560029
Department of Neuropathology

M-2792

Sample Details : H-2308220022 (Tissue)

Nature Of Specimen:
Received a corticectomy specimen measuring 5x4x2cm along with multiple grey white soft to firm tissue pieces altogether measuring 6x5x2cm. A1,A2,A3,A4
A separate corticectomy specimen shows distinct grey white distinction. No distinct tumor identified. Cut section for grey white tissue peices is grey white firm.A5.
Rest kept.

Histopathology Report:
Sections show a high grade partly circumscribed highly cellular glial neoplasm composed of cells arranged in nesting and perivascular pseudorosette pattern. The cells show round to oval hyperchromatic nuclei and moderate amount of eosinophilic to clear cytoplasm with mild anisonucleosis. At places the cells show pleomorphic nuclei with prominent nucleoli. Mitosis is increased. Stroma shows microcystic changes and foci of calcification. Microvascular proliferation, large areas of necrosis and hemorrhages are noted.
IHC:
Olig2- negative
GFAP- positive with perivascular accentuation
EMA- shows cytoplasmic dot like positivity
L1CAM-negative
IDH1 p. R132H- negative
ATRX- retained expression
p53-negative

Final Impression:
Supratentorial ependymoma, NOS, CNS WHO grade 3, right temporal

Thank you