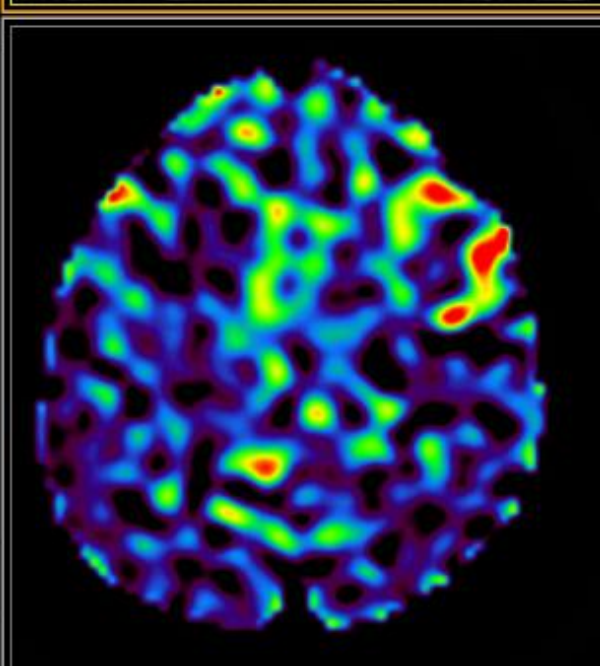
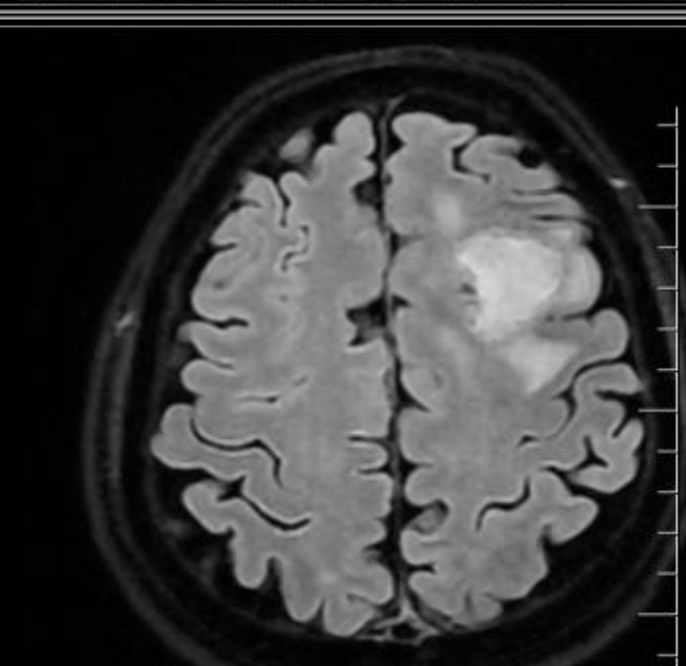
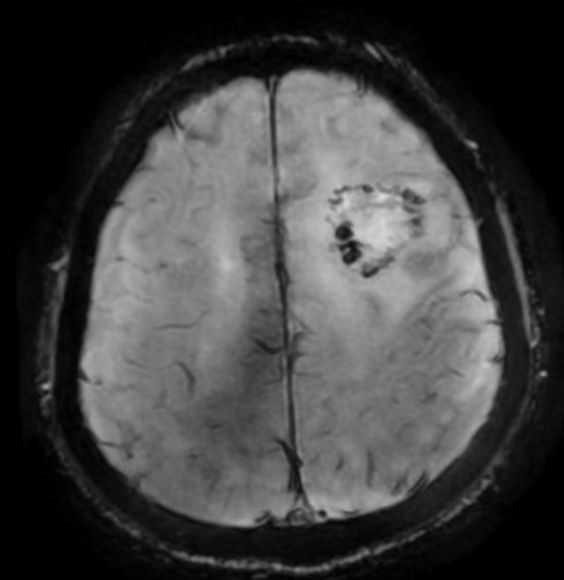
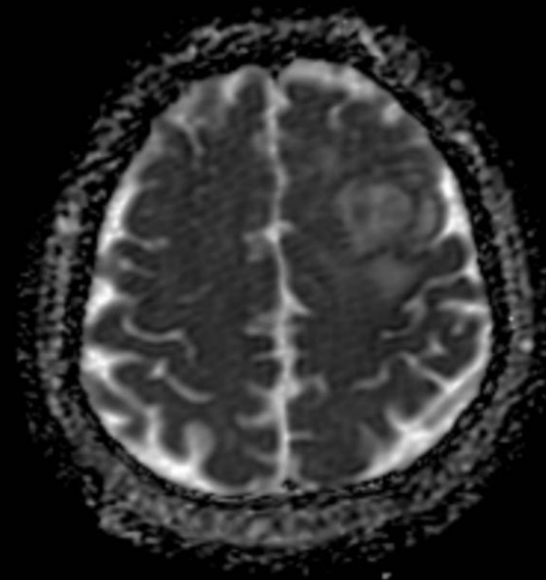
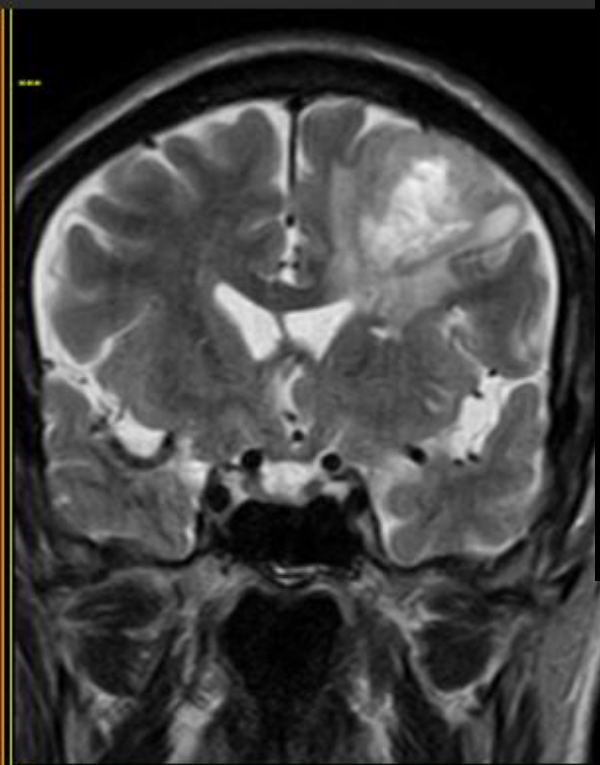
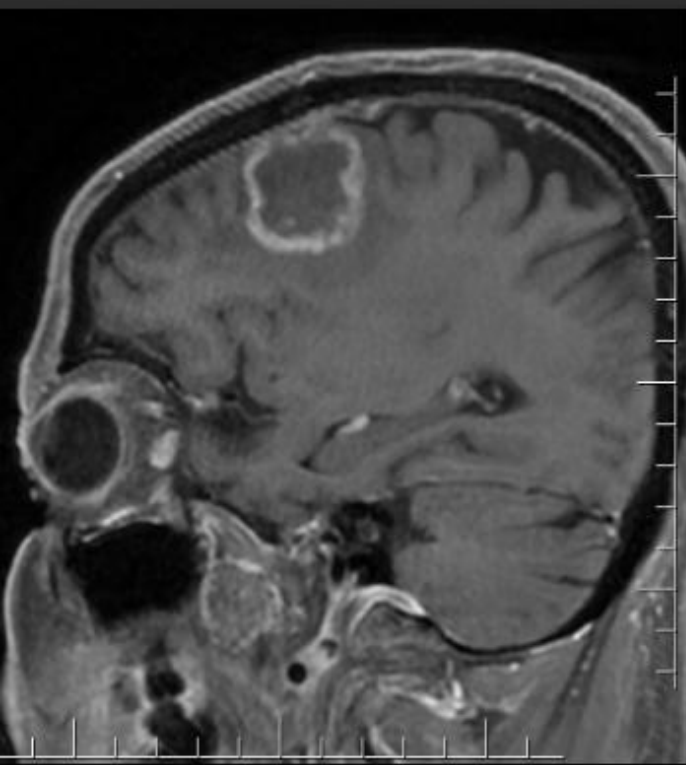




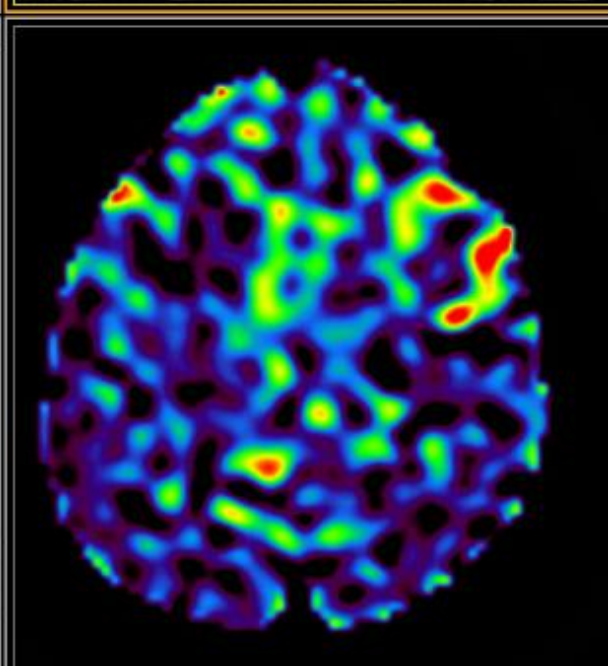
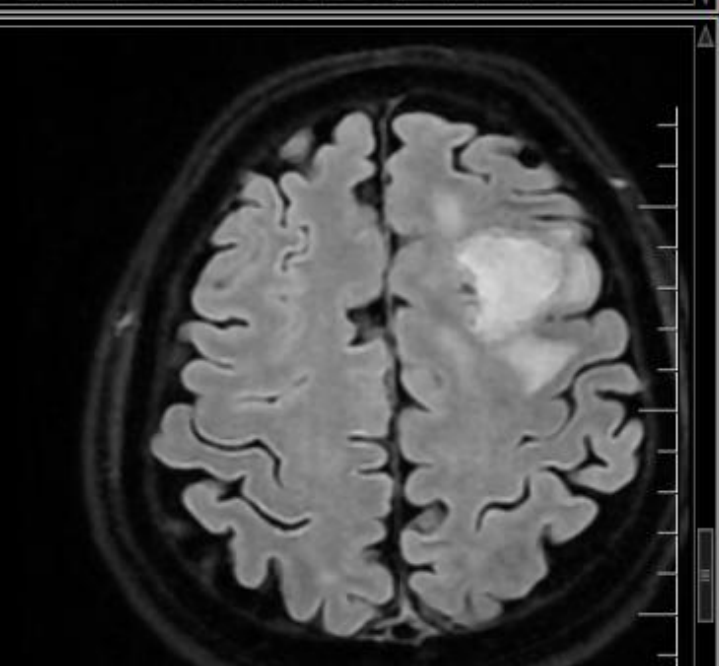
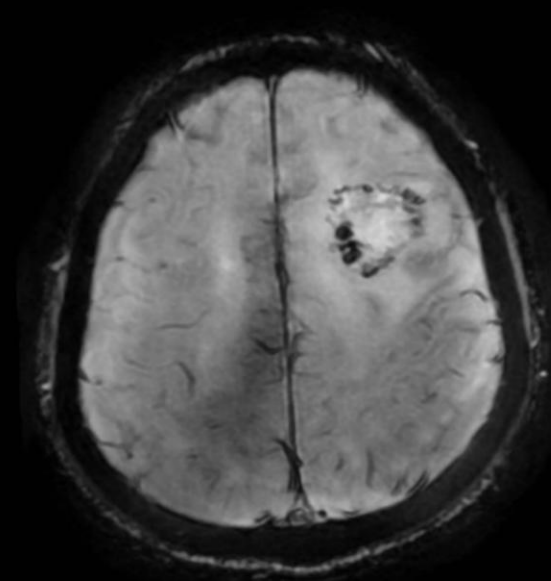
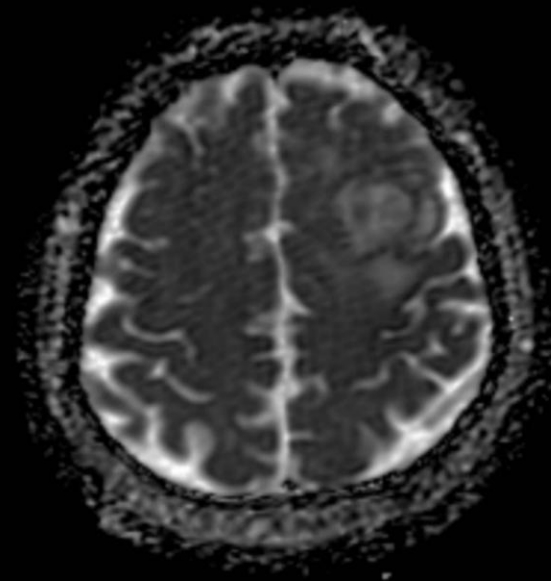
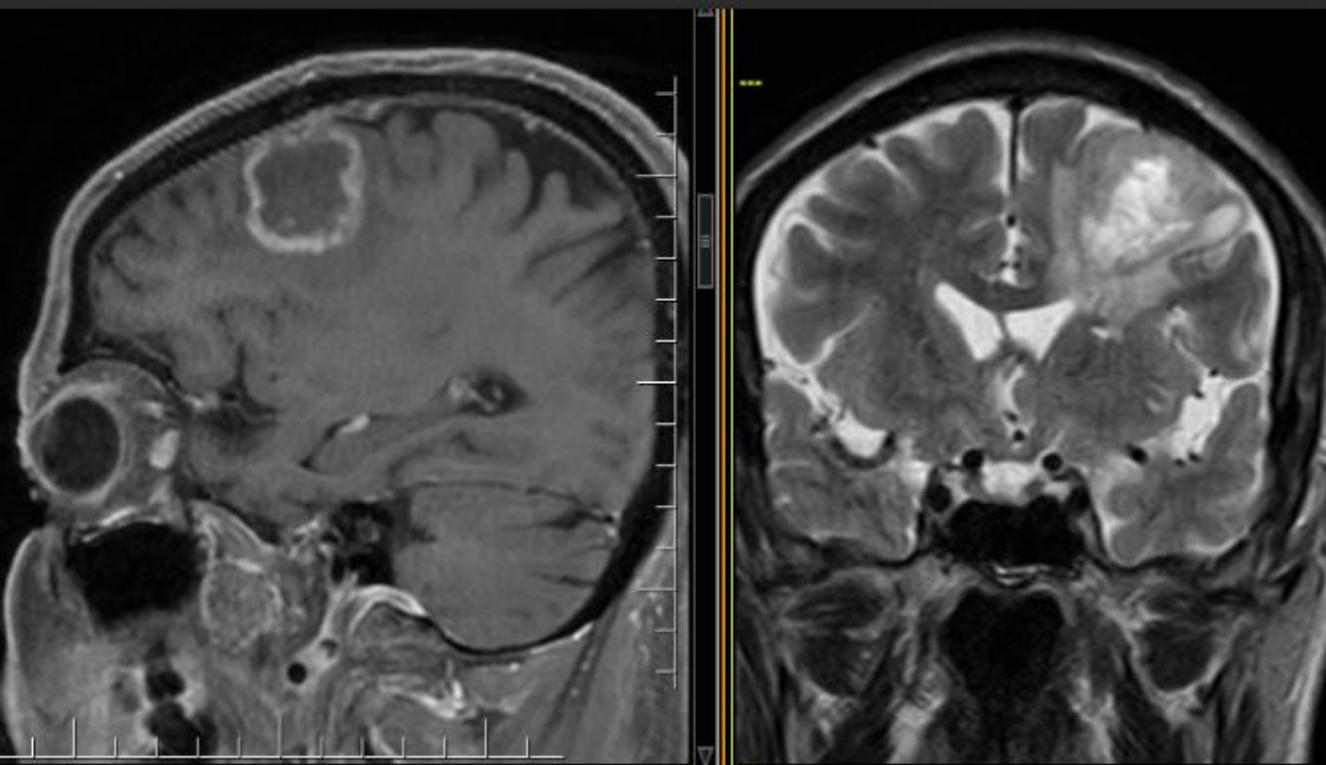
2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

SJMCH, Bengaluru
Contributor of the Series



56 year old male
Diagnosis?



56 year male with a left frontal lobe SOL replacing the middle frontal gyrus with loss of normal architecture, T2/FLAIR hyperintense signal without mismatch, irregular thick peripheral nodular rim enhancement with low ADC, high CBF, and peripheral linear hypointense susceptibility signal areas. Midline shift is not significant. The lesion is reaching corpus callosum and juxtaventricular white matter.

Features are suggestive of a high-grade glioma. A possibility of adult type diffuse glioma without IDH mutation may be considered.
HPE – CNS WHO 4, glioblastoma IDH wild type.

Glioblastoma / Diffuse glioma

A highly aggressive, WHO grade-4 diffuse astrocytic tumour in adults, lacking IDH mutations. Often shows TERT promoter mutation, EGFR amplification, or +7/−10 chromosomal pattern.

Epidemiology: Most common malignant primary brain tumour in adults, peak age 65–75 years, slight male predominance.

Imaging: Large, irregular ring-enhancing mass with central necrosis and extensive surrounding edema; often crosses corpus callosum.

Histology: Highly cellular with marked pleomorphism, frequent mitoses, microvascular proliferation, and palisading necrosis.

Diagnosis: Requires diffuse astrocytic tumour in an adult plus IDH-wildtype status and either necrosis/microvascular proliferation or molecular hallmarks above.

Prognosis: Poor; median survival ~12–15 months despite treatment. Younger age, good performance status, gross total resection, and MGMT promoter methylation improve outcomes

Treatment: Maximal safe surgical resection followed by radiotherapy plus temozolomide (Stupp protocol); clinical trials explore novel therapies.

Contributors

Dr. M S Kashif
MD, Fellowship in Oncoimaging
SR, St. John's Medical College Bengaluru

Dr. Victor K.
Post-graduate Resident, St John's Medical College Bengaluru.