

Brain Tumor Classification Report

Name: Bahubali

Age: 46

Gender: Male

Symptoms: Headache

Prediction: meningioma_tumor

Description:

Abnormality Identification:

The MRI scan reveals a large, well-circumscribed, extra-axial mass with homogeneous enhancement located near the midline, consistent with a meningioma tumor. The tumor appears to be causing a mass effect on the adjacent brain tissue, potentially leading to compression and displacement.

Impact Analysis:

The presence of a meningioma tumor in this location can lead to increased intracranial pressure and localized brain tissue compression. This can explain the patient's symptom of headache, which is a common clinical manifestation due to pressure effects and irritation of surrounding meninges or brain structures. If untreated, the tumor's growth may result in further neurological deficits depending on the affected brain regions.

Final Diagnosis:

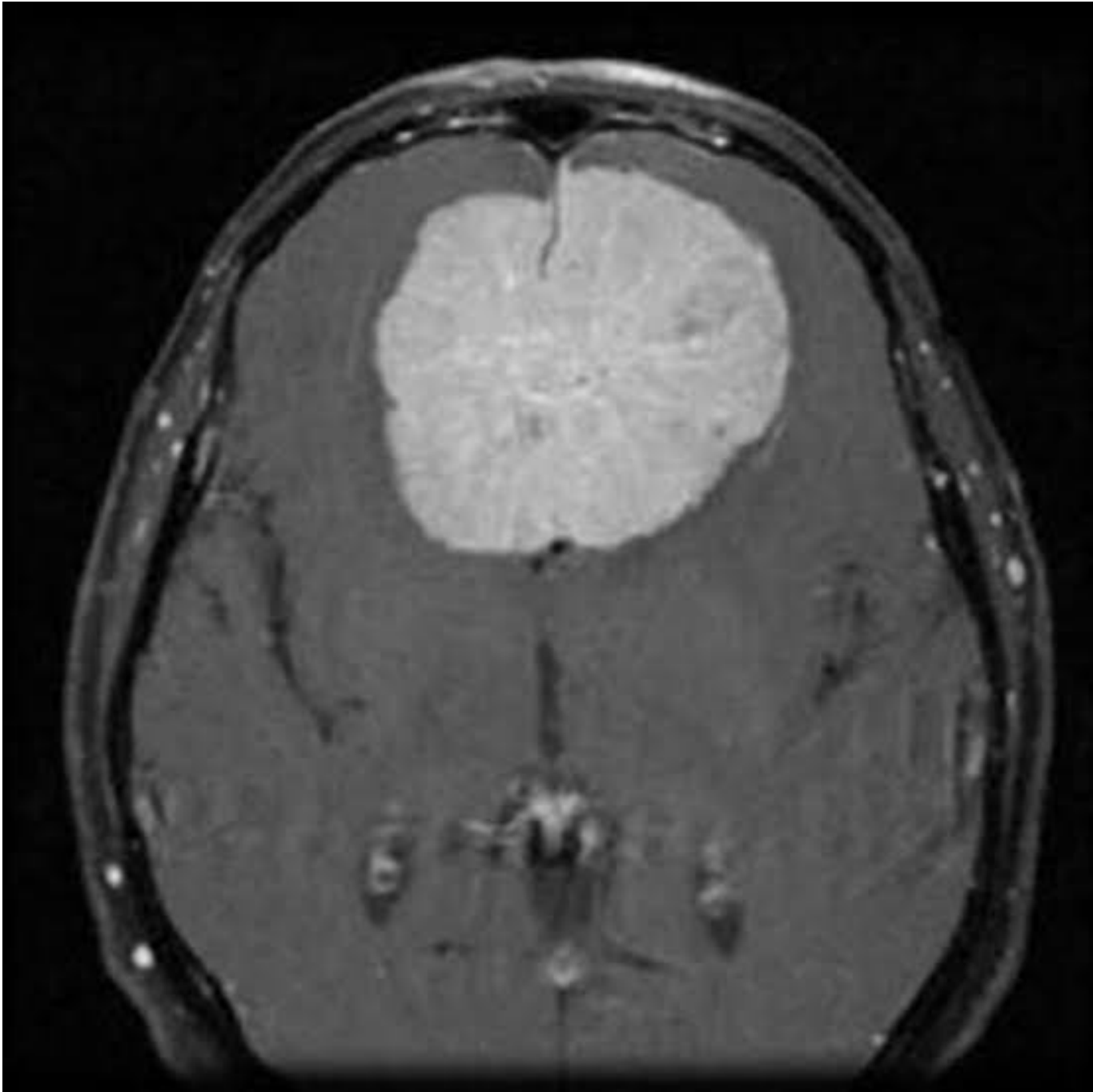
The patient's clinical deterioration, primarily headache, is most likely caused by a meningioma tumor exerting mass effect on the brain. This benign tumor arises from the meninges and can cause symptoms by compressing adjacent neural tissue and increasing intracranial pressure.

Meningioma is a typically benign, slow-growing tumor originating from the meningotheelial cells of the arachnoid layer of the meninges. It is one of the most common primary brain tumors. Meningiomas can vary in size and location but often present as well-defined masses with homogeneous contrast enhancement on MRI. Symptoms depend on tumor size and location but commonly include headaches, seizures, and focal neurological deficits. Most meningiomas are benign (WHO Grade I), but some can be atypical or malignant.

Precautions:

- Regular follow-up with neuroimaging to monitor tumor size and progression.
- Avoid activities that may increase intracranial pressure, such as heavy lifting or straining.
- Maintain good hydration and avoid excessive caffeine or alcohol.
- Manage symptoms such as headache with appropriate medication under medical supervision.
- Consult a neurosurgeon or neuro-oncologist for evaluation of potential surgical removal or other treatment options like radiation therapy if indicated.
- Report any new neurological symptoms immediately, such as weakness, vision changes, or seizures.

Original Image



Grad-CAM Image

