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-defined, extra-axial mass with homogeneous enhancement, consistent with a meningioma tumor. The tumor appears to be causing a mass effect on the adjacent brain structures, likely leading to compression and displacement of normal brain tissue.

Impact Analysis:

The presence of a meningioma tumor can lead to increased intracranial pressure and localized brain compression. This can result in symptoms such as headache, which is reported by the patient. The mass effect may also cause neurological deficits depending on the tumor's location. In this case, the large size of the tumor suggests a significant impact on the surrounding brain tissue, potentially causing clinical deterioration if left untreated.

Final Diagnosis:

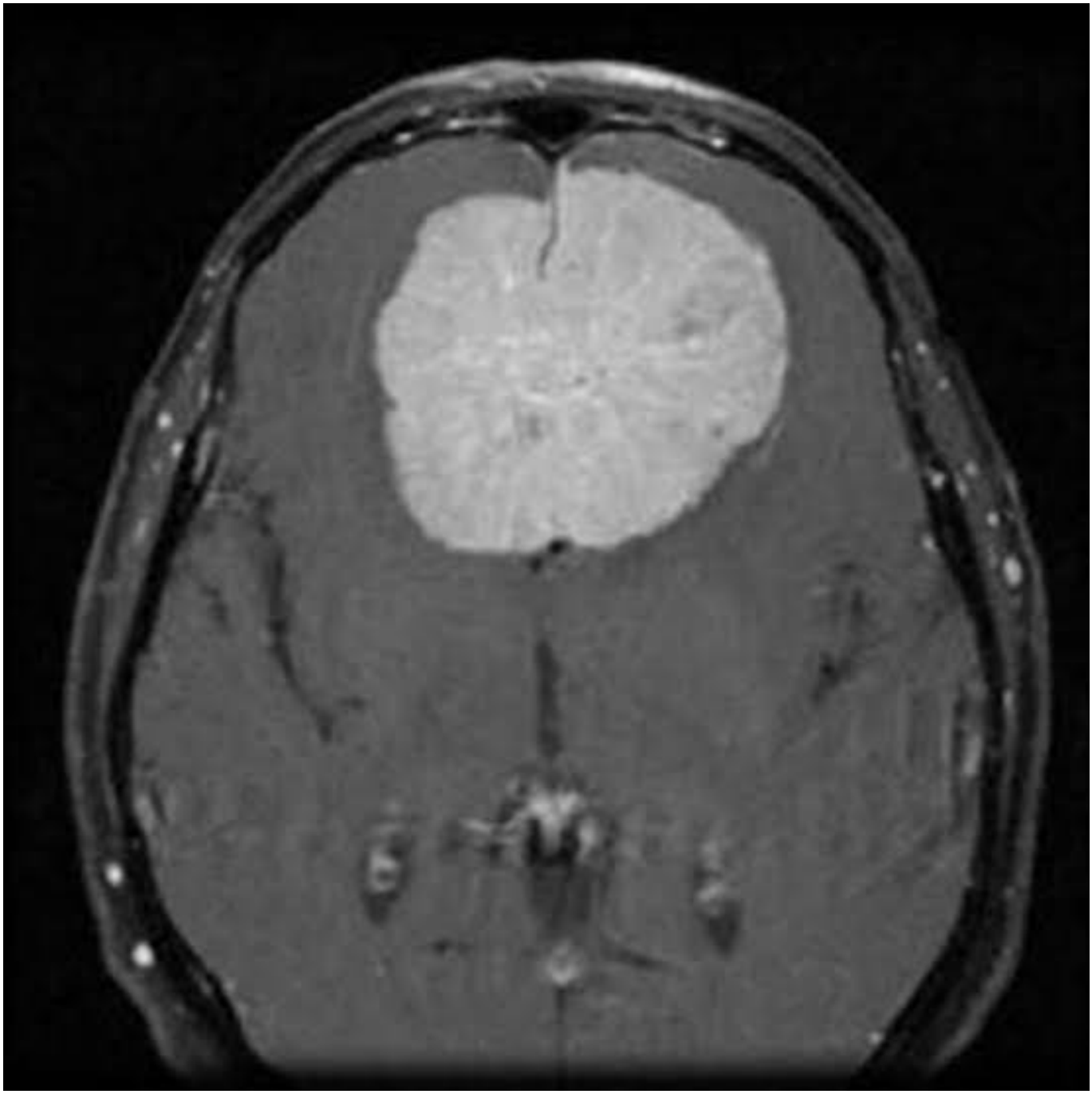
The clinical deterioration, primarily headache, is likely caused by the meningioma tumor exerting pressure on the brain tissue, leading to increased intracranial pressure and localized brain dysfunction.

Meningioma is a typically benign, slow-growing tumor that arises from the meninges, the protective membranes covering the brain and spinal cord. It is one of the most common primary brain tumors in adults. Although usually benign, meningiomas can cause significant symptoms due to their size and location, compressing adjacent brain structures. Symptoms often include headaches, seizures, and neurological deficits depending on the tumor's site.

Precautions:

- Regular monitoring with follow-up MRI scans to assess tumor growth.
- Avoid activities that could increase intracranial pressure, such as heavy lifting or straining.
- Maintain a healthy lifestyle with proper hydration and nutrition.
- Report any new or worsening neurological symptoms immediately, such as seizures, weakness, or changes in vision.
- Consultation with a neurosurgeon or neuro-oncologist for potential treatment options, which may include surgical removal, radiation therapy, or observation depending on tumor size, growth rate, and symptoms.

Original Image



Grad-CAM Image