Brain Tumor Classification Report

Name: string

Age: 0

Gender: string

Symptoms: string

Prediction: meningioma_tumor

Description:

Abnormality Identification:

The MRI scan reveals a large, well-defined, extra-axial mass with significant contrast enhancement located adjacent to the cerebral cortex, characteristic of a meningioma tumor. The mass effect is causing compression and displacement of the surrounding brain tissue.

Impact Analysis:

The presence of this sizable meningioma can lead to increased intracranial pressure, resulting in symptoms such as headaches, nausea, vomiting, seizures, or neurological deficits depending on the affected brain region. The mass effect and compression of brain structures may contribute to clinical deterioration.

Final Diagnosis:

The clinical deterioration is most likely caused by the meningioma tumor exerting pressure on adjacent brain tissues, leading to neurological symptoms and potential impairment of brain function.

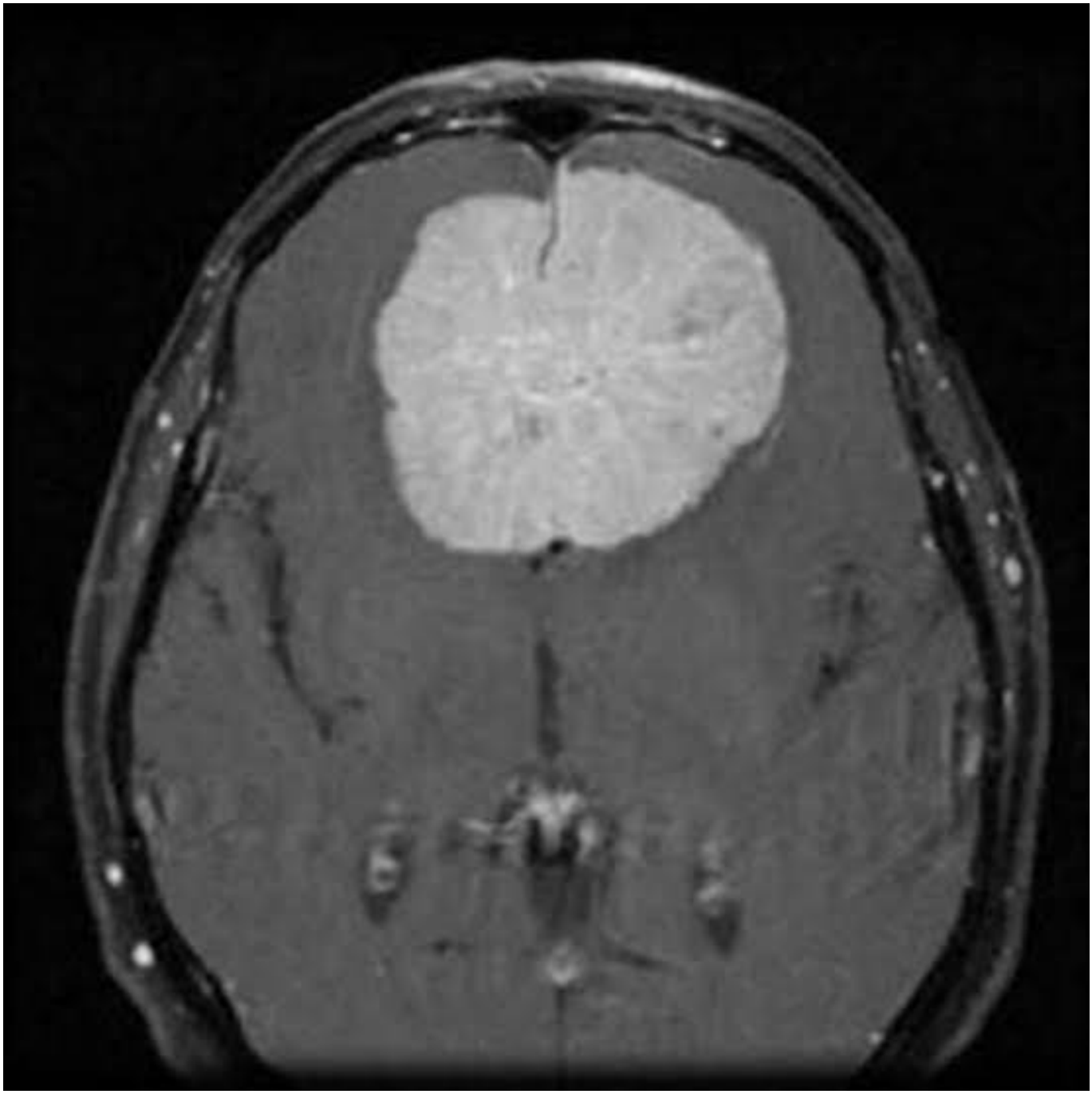
Meningiomas are typically benign, slow-growing tumors arising from the meninges, the protective membranes covering the brain and spinal cord. They are the most common primary brain tumors in adults but are rare in

infants or very young children. Though often benign, their location and size can cause significant symptoms due to compression of brain tissue. Diagnosis is confirmed by imaging studies like MRI and histopathological examination after biopsy or surgical removal.

Precautions:

- Regular neurological evaluations and imaging follow-up to monitor tumor growth.
- Avoid activities that might increase intracranial pressure, such as heavy lifting or straining.
- Immediate medical attention if new or worsening neurological symptoms occur.
- Discuss treatment options with a neurosurgeon, which may include surgical removal, radiation therapy, or observation depending on tumor size, location, and symptoms.
- Supportive care to manage symptoms like headaches or seizures as prescribed by a healthcare provider.

Original Image



Grad-CAM Image