Tumor Classification Report

Age: 0

Gender: Male

Symptoms:

Prediction: Meningioma Tumor

Description:

Abnormality:

The MRI scan shows a large, well-circumscribed, extra-axial mass with homogeneous enhancement, consistent with a meningioma tumor. The mass is causing significant mass effect on the adjacent brain tissue, including compression and displacement of the cerebral hemispheres.

Impact and Clinical Deterioration:

The tumor's size and location are causing compression of the surrounding brain structures, which can lead to increased intracranial pressure, neurological deficits, seizures, or developmental delays, especially critical in an infant (age 0). The mass effect may disrupt normal brain function and cerebral blood flow, contributing to clinical deterioration.

Final Diagnosis:

The clinical deterioration is likely caused by the large meningioma tumor exerting pressure on the brain parenchyma, leading to neurological compromise.

Meningiomas are typically benign tumors arising from the meninges, the protective membranes covering the brain and spinal cord. They are usually slow-growing and more common in adults, but can rarely occur in

infants. These tumors can cause symptoms by compressing adjacent brain tissue or cranial nerves. Imaging typically shows a well-defined, enhancing mass attached to the dura mater.

Precautions:

- Close neurological monitoring is essential, especially in infants, to detect any signs of increased intracranial pressure or neurological deficits.
- Surgical consultation is recommended promptly to evaluate the need for tumor resection.
- Avoid activities or medications that may increase intracranial pressure.
- Regular follow-up MRI scans to monitor tumor growth or recurrence.
- Supportive care including managing symptoms like seizures if they occur.
- Multidisciplinary approach involving neurosurgery, neurology, and pediatric care is crucial for optimal management.