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CLINICAL IMAGE

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A 62-year-old female with no medical history, presented 3 months' ago headaches resistant to usual analgesics with behavior disorders. Symptoms worsened with an onset of vomiting, without sensory-motor deficit or seizures. She undergoes a contrast enhanced MRI (A) and FLAIR (B). Ans the following questions.

Questions:

1. Describe the film (3 important features)
2. What is the most likely diagnosis
3. What are the treatment modalities

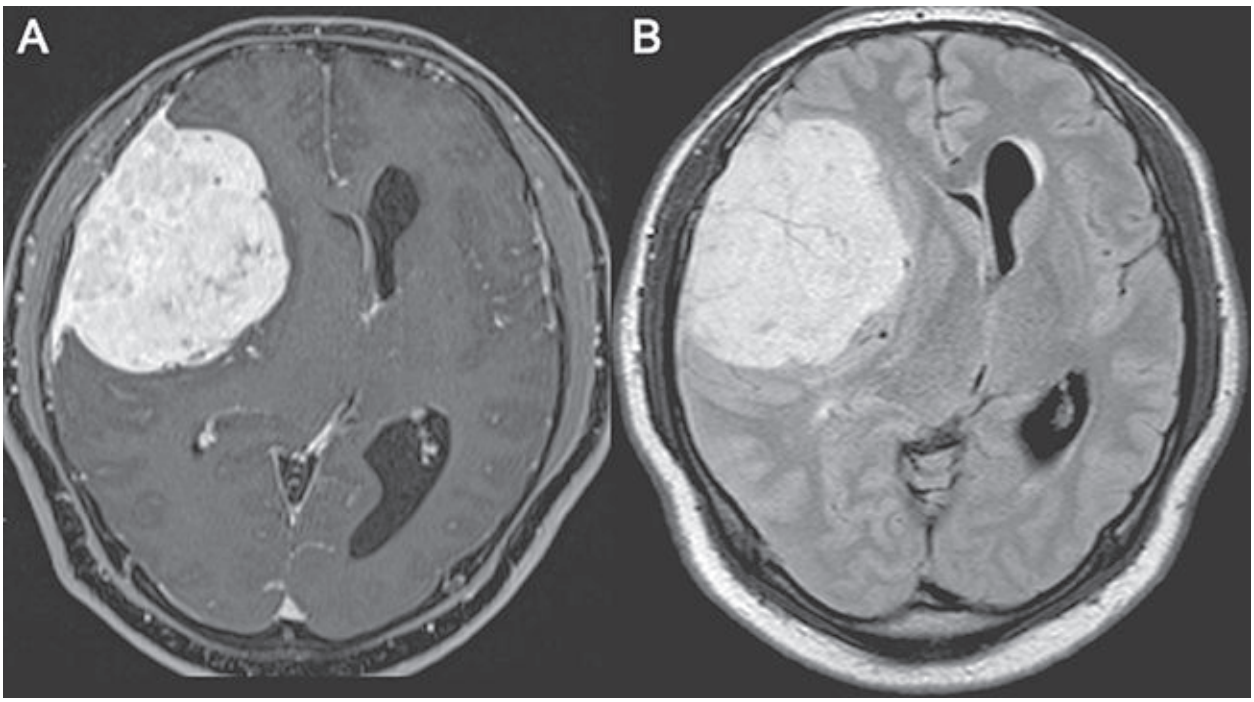
Answers:

1. a) Homogeneously enhanced mass within the right frontoparietal region.
   b) A dural tail sign
   c) Compression of the left lateral ventricle and midline shift to the left
2. Meningioma in the right Frontoparietal lobe
3. surgical resection of the tumor

Overview

Meningiomas are more frequent in women, with a ratio of 2:1 intracranial and 4:1 in the spine.[1] Atypical and malignant meningiomas are somewhat more prevalent in men. They are uncommon in persons under the age of 40 and should raise the possibility of neurofibromatosis type 2 when seen in young patients[2].

MRI with gadolinium is the best option for diagnosing meningioma. Meningioma appears on MRI as a



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homogenous, well-defined, extraaxial mass with a large dural base. Other MRI abnormalities indicative of meningioma include CSF vascular cleft sign, dural tail sign, and non-enhancing central necrosis or calcification. Meningiomas may seem different on T1 and T2-weighted sequences but share a few specific features.[2]

T1-weighted sequence shows isointensity to modest hypointensity compared to grey matter.

Extensive dural thickening in meningioma plaque. Microcystic meningiomas have uniformly low signal intensity. T2-weighted sequence: isointensity to modest hyperintensity compared to grey matter. Calcification appears as patches with low signal intensity. High signal intensity in microcystic meningiomas.

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