

A Case Of Multiple Meningioma

G.BALACHANDRAN

Citation

G.BALACHANDRAN. *A Case Of Multiple Meningioma*. The Internet Journal of Radiology. 2009 Volume 11 Number 1.

Abstract

A case of multiple meningioma in an adult female ,who had M.R. imaging done , is being reported. The unique feature of my case are- all the tumours were in supratentorial compartments, all localized to right side. There were nine tumours, the largest was 39 mm and smallest 9 mm. The patient had no evidence of neurofibromatosis.

INTRODUCTION

A forty seven years old female was referred for evaluation of chronic headache.

She had M.R. imaging done with and without contrast agent, in all pulse sequences.

MR images (FIGURE 1) T1W parasagittal and (FIGURE 2) T1W axial showed hypointense,multiple ,well defined , extra axial lesions predominantly in right Fronto-parietal concexity and right parasagittal regions.

The T2W coronal (FIGURE 3) and T2W axial (FIGURE 4) images showed multiple hyperintense lesions. There wer nine lesions- three near the falx ,five in paragittal and one in lateral ventricle- all in right side and supratentorial compartment. All the lesions showed contrast enhancement as shown in axial (FIGURES 5 & 6), right paragittal (FIGURE S 7 & 8) planes. Some images showed dural tail. The largest measured 39 mm and the smallest measured 9 mm.The patient had no evidence of neurofibromatosis.

Figure 1

FIGURE 1 T1W PARASAGITTAL SHOWING MULTIPLE HYPOINTENSE LESIONS.

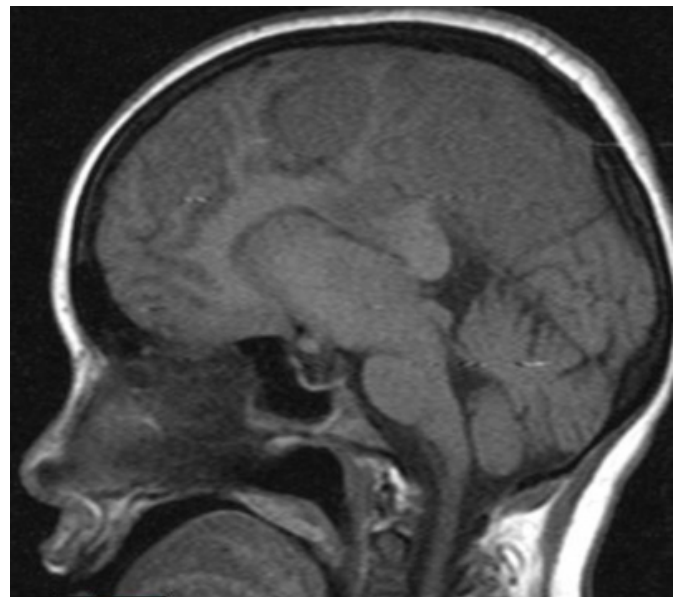


Figure 2

FIGURE 2 T1W AXIAL SHOWING MULTIPLE HYPOINTENSE LESIONS PARAGITTAL LOCATION

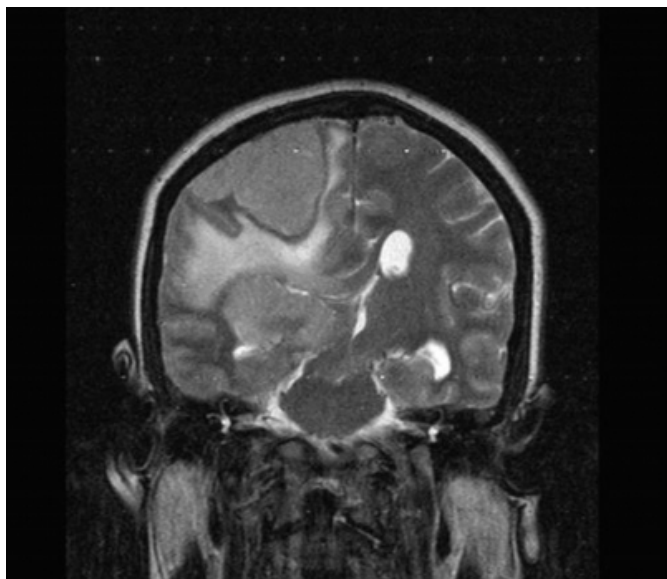


Figure 4

FIGURE 4 T2W AXIAL SHOWING RIGHT SIDED MULTIPLE ,WELL DEFINED HYPERINTENSE LESIONS

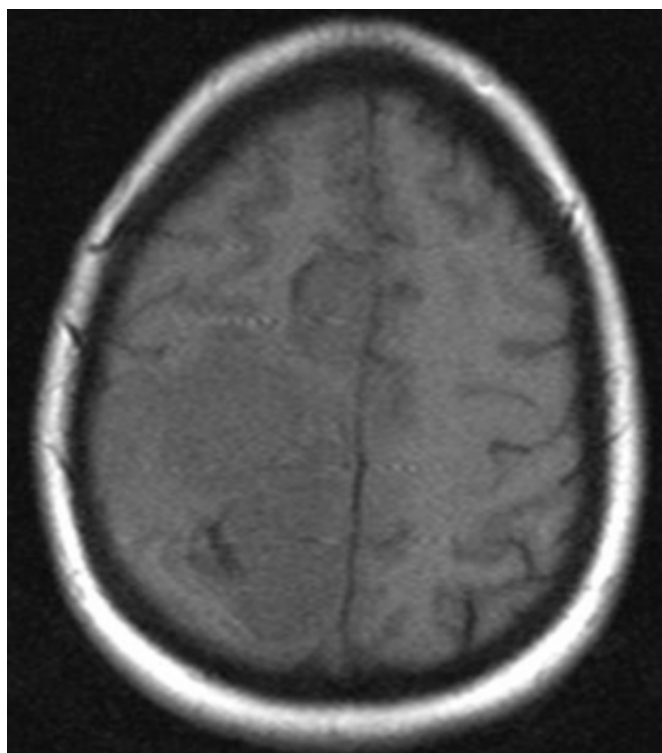


Figure 3

FIGURE 3 T2W CORONAL - SHOWING RIGHT SIDED MULTIPLE ,WELL DEFINED HYPERINTENSE LESIONS.

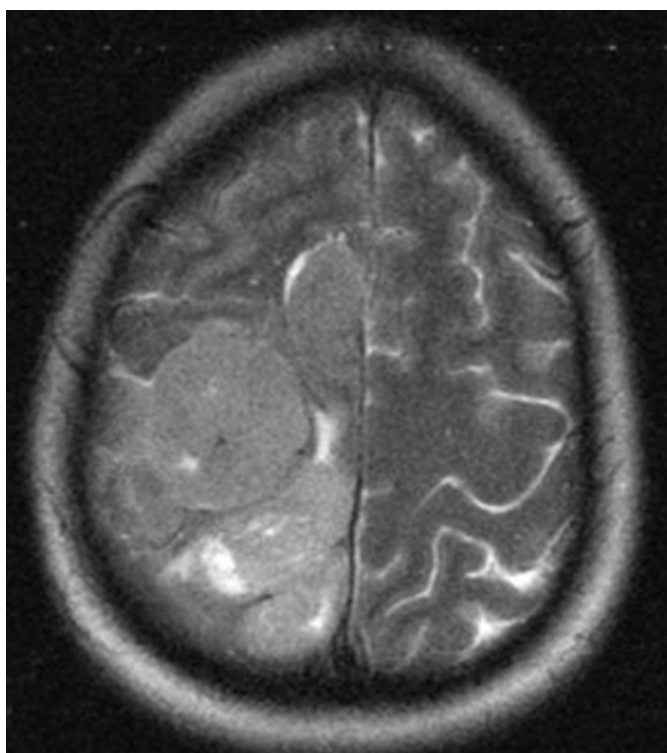


Figure 5

FIGURE 5 -T1W AXIAL SHOWING MULTIPLE CONTRAST ENHANCING LESIONS

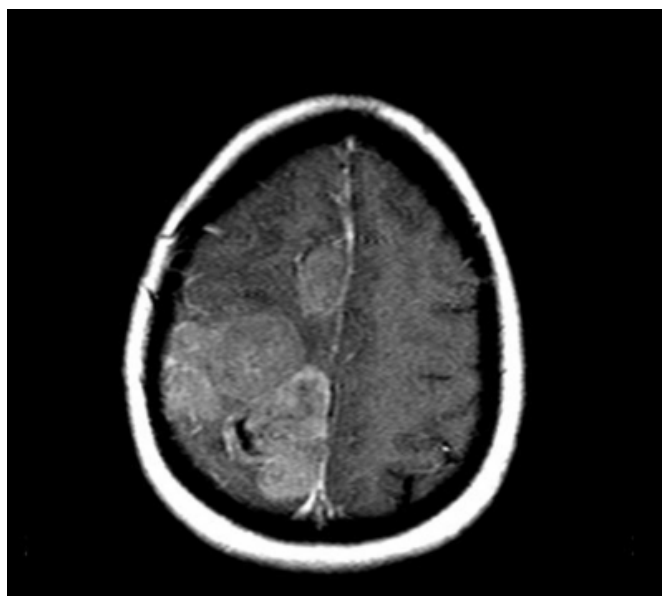


Figure 6

FIGURE 6 -T1W AXIAL SHOWING MULTIPLE CONTRAST ENHANCING LESION



Figure 7

FIGURE- 7 T1W RIGHT PARA-SAGITTAL SHOWING MULTIPLE CONTRAST ENHANCING MASSES.

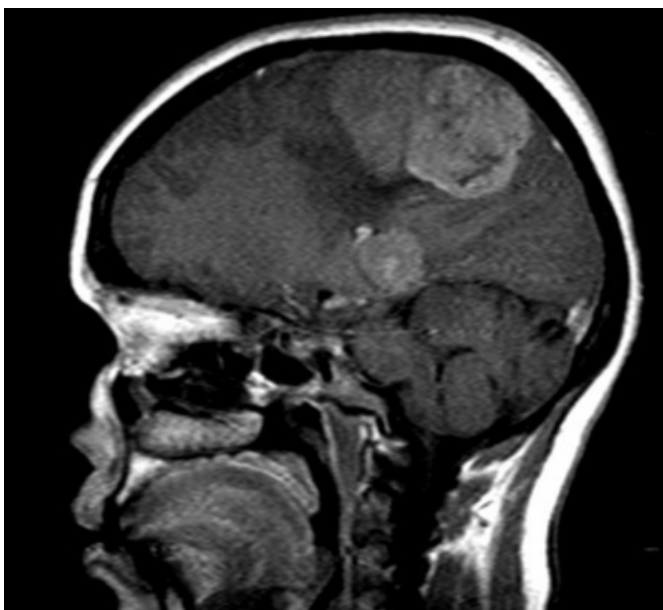
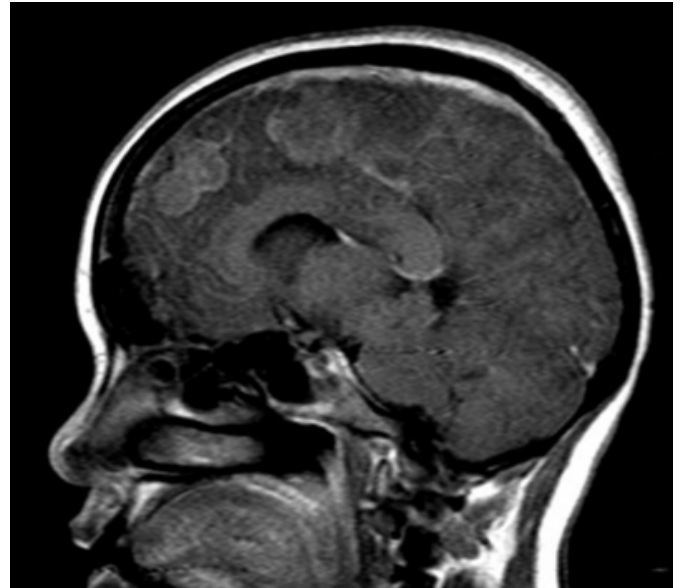


Figure 8

FIGURE 8 T1W RIGHT PARA-SAGITTAL SHOWING MULTIPLE CONTRAST ENHANCING MASSES



DISCUSSION

The term multiple meningioma is used to describe the simultaneous or sequential appearance of 2 or more independently situated meningiomas, not necessarily of the same pathologic subtype. Multiple meningiomas were associated with neurofibromatosis. However, the current concept is that these tumors are due to inherent multicentricity of the dural foci, possibly influenced by hormonal factors. Multiple spinal meningiomas are rarer than multiple cranial meningiomas. Multiple meningiomas occurring in different neuraxial compartments are distinctly rare. Meningiomas are the most common, non glial, primitive intracranial tumours; their prevalence among operated tumours is around 13-19%. They may occur at any age but have a peak incidence around 45 years of age; 60% occur in females. One% are multiple, usually in neurofibromatosis. The most common locations are: falx and parasagittal (25%), convexity (20%), sphenoid (20%) olfactory groove (10%) suprasellar (10%), posterior fossa (10%), middle fossa (3%) and intraventricular (2%).. They uncommonly arise infratentorially (approximately 10%). The most frequent sites for infratentorial meningiomas are: the petrous bone, clivus, foramen magnum, tentorium; extremely rare is an intraventricular meningioma of the fourth ventricle. Meningiomas are readily diagnosed by MR imaging, and most are asymptomatic ..Atypical meningiomas account for 7.2% of all meningiomas, whereas malignant meningiomas are rare and constitute approximately 2.4%. Malignant and atypical meningiomas

are more prone to recurrence and aggressive growth, which increases patient morbidity and mortality. Meningiomas are solid, well-marginated benign lesions originating from the meninges. On MRI meningiomas tend to be isointense to cortex and hypointense to white matter in T1-weighted images; in T2-weighted images meningiomas are again isointense to slightly or markedly hyperintense.

Enhancement with Gadolinium (Gd) is usually very marked and homogeneous. . In addition, enhancing dural tail may also be identified. Most meningiomas are homogeneously solid tumors, but there may be on occasion foci of necrosis as well as scarring, cystic degeneration, or calcification...

There is relatively little associated vasogenic edema in

relationship to the size of the lesion, likely secondary to its slow-growing nature. Meningiomas may occasionally have an atypical appearance and atypical enhancement pattern secondary to necrosis, scarring, previous hemorrhage, or fat deposition.

References

1. Bhatia HS, Simultaneous occurrence of multiple meningiomas in different neuraxial

compartments, Neurological society of India. 2003 ;: 51 : 2 ;: 263-265.

2. Young-Cho Koh , Heon Yoo , et al, Multiple meningiomas of different pathological

features: case report, Journal of Clinical Neuroscience , volume 8-4, May 2001, Pages 40-4.

Author Information

G.BALACHANDRAN, M.D.,D.N.B.,D.M.R.D.

HEAD OF RADIOLOGY DEPARTMENT, GOVT.GENERAL HOSPITAL