
Meningioma of Posterior Fossa. A Case Report.

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Meningioma is a benign tumor of slow growth and represent between 15 to 20% of all intracranial tumors. Meningiomas of cerebellum tentorium represent less than 5%. We present a 57 year-old man who developed headache, dizziness and cerebellum syndrome 3 months. The CT-Scan showed a large, hyperdense extra axial tumor on posterior fossa, coming from cerebellum tentorium suggesting a Meningioma causing an obstructive hydrocephalus. A total excision of the tumor was done, and hydrocephalus was managed at the same surgical session. The patient's recovery was good without complications.

Introduction

Meningioma is a benign tumor, developed from meninges tissues with slow evolution. It represents 15 to 20% of Intracranial Tumours, and is the second more frequent neoplasm in adult preceded by Gliomas, and they appear to be more common in population between 40 to 70 years^{3,7-8}. The supratentorial region is the most common location and into this structure sagittal and parasagittal region, convexity of the hemispheres, falx, sphenoid wings and olphatory furrow they are very frequently encountered. The location in posterior fossa is not frequent, the most common locations in this region are: cerebellum convexity, pontocerebelous angle, clival region and on magnum hole. When its implantation base is in the cerebellum tentorium can grow to supra or infra-tentorial region^{1,2}. In this location it represents less than 5 % of all intracranial meningiomas and because of the complicated anatomical relationship of tentorium its needs to be well delimited before surgery.

Case Presentation

A 57 years old man with history of Hepatitis B who started with headache, dizziness and difficult to walk about 3 months before admission at Internal Medicine Service on August 2007. Physical examination was characterized by cerebellum syndrome. A CT- Scan was performed showing a big tumor in posterior fossa in the middle line on vermis projection but growing from cerebellum tentorium to infratentorial space, enhanced after contrast. There was compression of the IV ventricle which resulted in an obstructive hydrocephalus. A decision taken was to operate the patient in order to solve hydrocephalus in the same surgical time because of lack of catheter for shunt.

Trans operative Period: Before craniectomy a right occipital trepanation was done to drain hydrocephalus during operation, after that, Naffziger incision and craniectomy of posterior fossa was done. The tumor was exposed and excised piecemeal, a fragment of tumor was sent to Pathology Lab for biopsy. After total tumor removal ventriculocisternal (Torkildsen) derivation was doing to solve hydrocephalus.

Post operative evolution was good, without any complication and the patient was discharged 10 days later. On a review a month later the patient looked like well, had no headache and the cerebellum syndrome improved. CT- SCAN control after operation confirmed the total tumor removal. The diagnosis of Meningioma was confirmed by pathology.

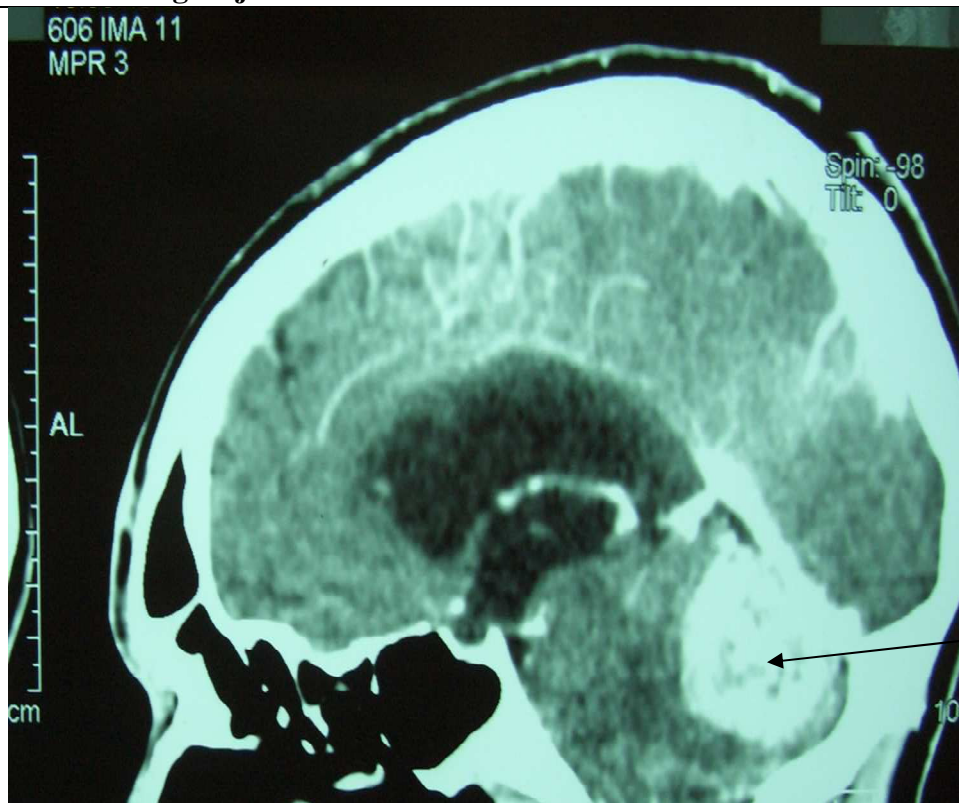


Figure 1. CT – Scan before operation showing the tumor.

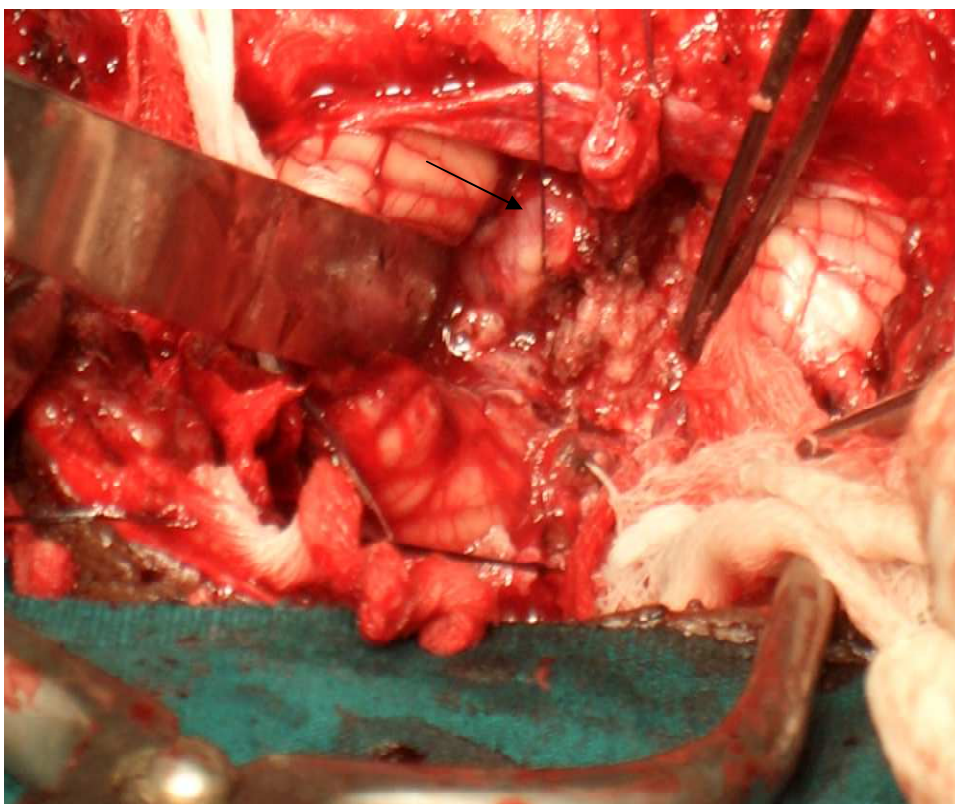


Figure 2. Trans Operative Period Showing Tumor Exposition.



Figure 3. Post Operative CT – Scan 3 Months Later Showing Total Tumor Removal.

Discussion

Meningioma of tentorium represents alone between 2 to 3% of all intracranial meningiomas, and 30% of them allocated in posterior fossa^{1,2,5}. These meningiomas can arise of any location in tentorium. From a clinical point of view it can be divided in medial tumors or of the tentorial incisures, lateral tumors and tumors of the falcotentorial region. Although there are several classifications, we use this for their simplicity^{2,3}. Those implanted at the level of tentorium free border have the peculiarity of being in a region with very important vasculo-nervous anatomical relationships. The meningiomas of the lateral region are characterized by their capacity of invasion of the transverse sinus and sigmoid limiting this way their complete resection. Those located in the union between falx and cerebellum tentorium, in the fork of the sinus rectum and lateral, falcotentorials are characterized by their seldomness⁹.

The tentorial meningioma can grow toward the supratentorial compartment, infratentorial or both at the same time producing different symptomatology and it depends on the structures it compress. It usually reaches considerable sizes before diagnosis making difficult its classification. The meningiomas of tentorial incisures of great size can be difficult to distinguish of those originated in the cavernous sinus or petroclival region (6, 10). For these reasons multiple classifications and surgical boarding of these tumors exist as well. The case presented supposes localization at level of tentorium free border for its medial projection.

Conclusions

The case reported results very interesting as uncommon location of meningioma because its prevail in supratentorial space. Another interesting situation was the possibility to solve hydrocephalus and the excision of the tumor in the same surgical time; generally is necessary to put a CSF shunt before. Total removal was possible in one surgical time despite of the size of the tumor and it was necessary to avoid that the tumor appears again considering its benign nature. The evolution was good without any complication. In spite of advances in neuroradiology and microsurgery, these tumors represent a challenge for the neurosurgeon, due to, in some cases, large tumor size and extension of critical areas.

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