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Sensorineural Hearing Loss Revealing a Pineal Germinoma with Multiples Meningiomas

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ABSTRACT
Cerebral germinoma represents 0.1 to 3.4% of intracranial tumors with a clear male predominance, it is developed more particularly in the pineal region. It most commonly affects adolescents and young adults. This type of tumor responds highly to radio-chemo-therapy and is potentially curable after surgery.

Introduction

Clinical image

We report the case of a 39-year-old woman with a history of intermittent headaches for three months , without morning vomiting or any other associated clinical sign, admitted for an assessment of rapidly progressive sensorineural hearing loss on the right side.

MRI of the cerebrum and of the cerebellopontine angles was performed, which objectified at the supratentorial level, a voluminous tumoral process of the pineal region, roughly rounded, well limited, in hyposignal T1 isosignal T2 with a homogeneous enhancement (figures 1 and 2) , it is associated with multiples meningiomas supra and subtentorial (figure 1 , 2 , and 4) , on of this meningiomas is locolized on the right cerebellopontine angle with same characteristic which is extended to the internal auditory canal (Figure 3) responsible of the hearing loss .

The patient has benificed; after stereotactic biopsy that confirm the , from radiotherapy with good tumor response

Discussion

Tumors of the pineal region are rare and represent 0.5 to 1% of intracranial neoplasms in adults (1) (2) (3)

Brain germinoma accounts for 0.1 to 3.4% of intracranial tumors, and is the most common tumor of the pineal region (constitutes up to 50% of all pineal tumors). There is a clear male predominance with a high incidence in Asia, and most often affects adolescents and young adults (4).

The main clinical manifestation is intracranial hypertension due to obstructive hydrocephalus. The mode of revelation by sensorineural deafness is unusual. The diagnosis of certainty is based on histological data (stereotactic biopsy) (5), in order to differentiate germinoma from other pineal tumors, since it is a tumor that responds remarkably to radio-chemo-therapy or radio-therapy alone and is potentially curative. by surgery.

MRI is the main means of imaging and most often shows an aspect of a well-defined lesion in hypo or isosignal T1, iso to hypersignal T2, with a clear homogeneous enhancement. There may be some calcifications or intralesional microcysts.

The germinoma can disseminate into the cerebral parenchyma, ventricles or the subarachnoid spaces.

Conclusion

Pineal germinoma is a rare tumor, it occurs most often in adolescents and young adults with a male predominance.The main symptom is intracranial hypertension. The diagnosis of certainty is based on histological data (stereotaxic biopsy), in order to differentiate it from other pineal tumors and the assessment of extension is ensured by MRI.

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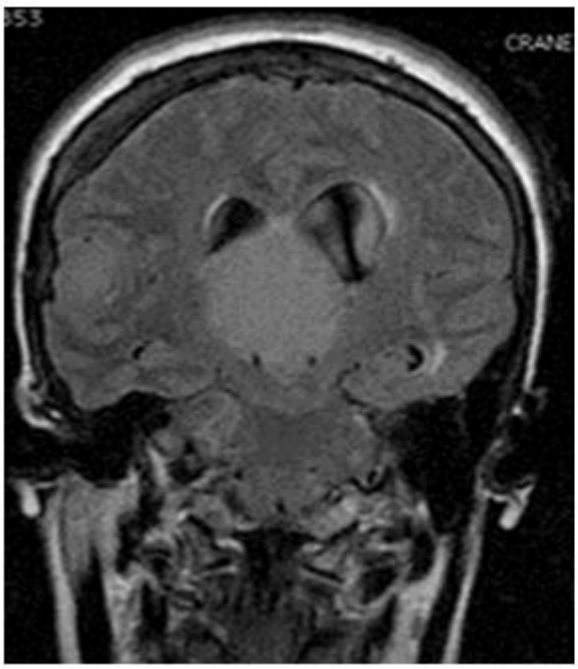
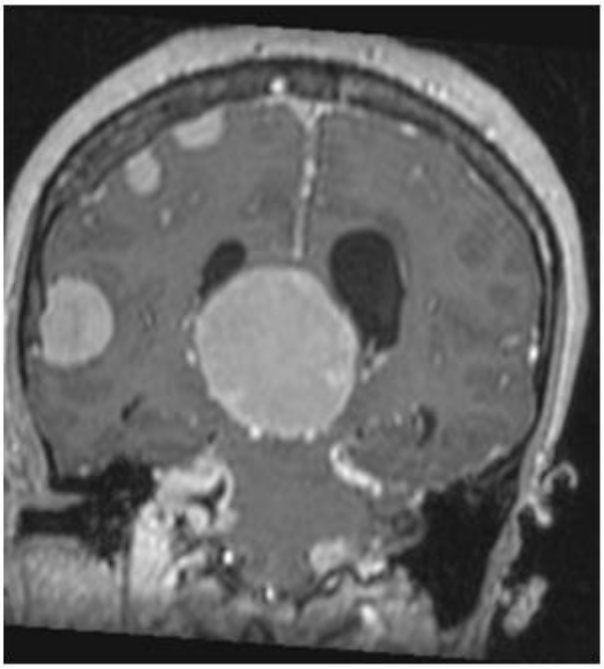
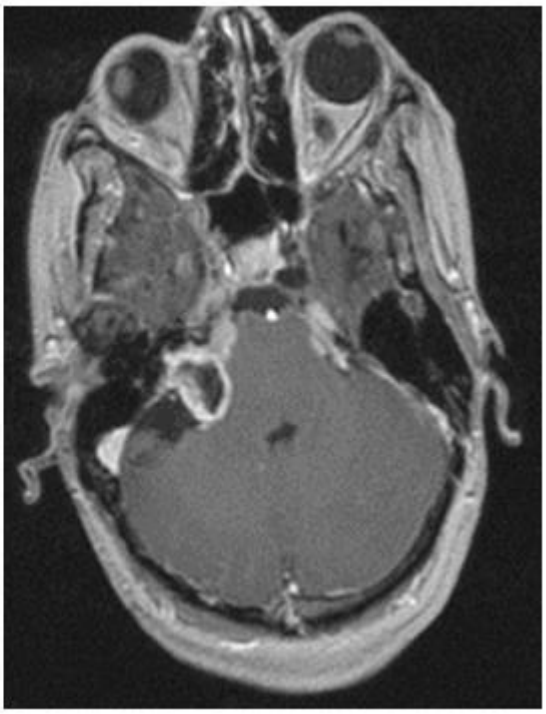




Figures 1 and 2 . showing a large pineal rounded mass , with homogenous enhancement and masse effect to the occipital right horn of the ventricle , associated with multiples supra and sub tentorial extra axial masses , with dural implantation base and homogenous enhancement denoting meningiomas.



Figures 3 and 4. Showing atypical meningioma of the right cerebello-pontin angle extended to the internal auditory canal.