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Review Article

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Iterative Recurrencies of Hemangioblastoma: Stabilization after Surgery and Radiotherapy

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Abstract

Hemangioblastomas are rare benign tumors that present less than 2% of all CNS tumors. Lesion development may be sporadic or associated with von hippelindau disease. Its treatment is based on total surgical excision; the risk of recurrence is linked to the potential presence of latent tumor nodules, in a quiescent state which may develop later, hence the importance of regular monitoring.

Keywords: Recurrent Hemangioblastoma, Fcp Tumor, Von Hippel Lindau Disease.

Introduction

It is a rare benign vascular tumor which accounts for less than 2% of primary central nervous system tumors, usually in the cerebellum and most often affecting young adults. It can be sporadic or progress as part of Von Hippel-Lindau disease. The advent of magnetic resonance imaging (MRI) has made it easier to diagnose these lesions.

Observation

Reporting to us the case of a male patient who presented to a clinic with HIC Syndrome; and Cerebellar Statokinetic Syndrome. Neuro-radiological exploration revealed a process of PCF suggesting the diagnosis of hemangioblastoma.

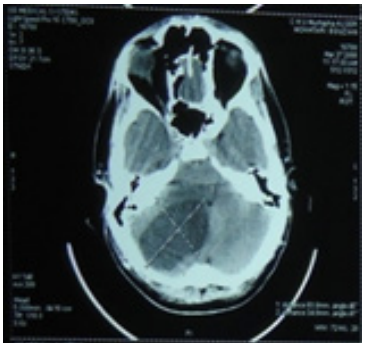

Figure1: The initial CT aspect

The patient was operated on for the first time in 2008 after performing a ventriculoperitoneal bypass to treat hydrocephalus, by performing total tumor resection; the histopathological study was in favor of a WHO grade I hemangioblastoma.

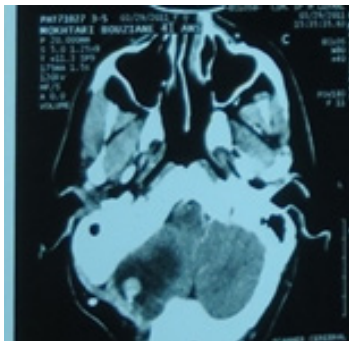

Figure 2: 1st recurrence

The evolution was good until 2011 when the patient consulted for the onset of headaches with dizziness. A cerebral CT scan done in him returning in favor of the recurrence of the process. The patient was operated on for a second time in 2011, and then a third surgery performed in 2014 following a reappearance of the same symptoms and the brain MRI revealed tumor recurrence.

In 2016 the patient underwent surgery and then referred for radiotherapy and since then the lesion has stabilized with a decrease in the diameter of the nodule.

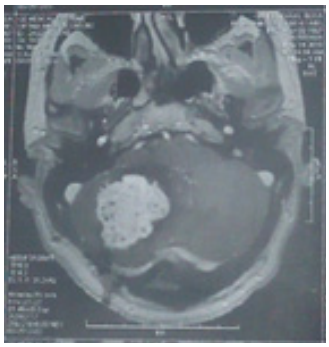

Figure 3: 2nd recurrence of hemangioblastoma

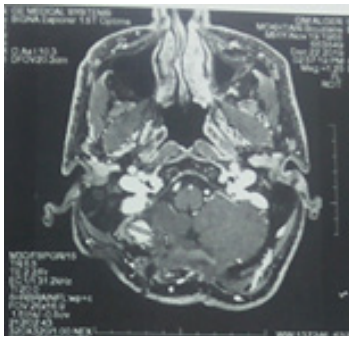

Figure 4: image after surgery and radiotherapie

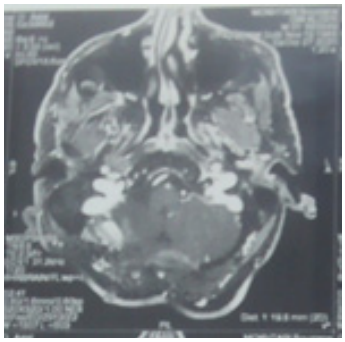

Figure 5: TDM image after one year

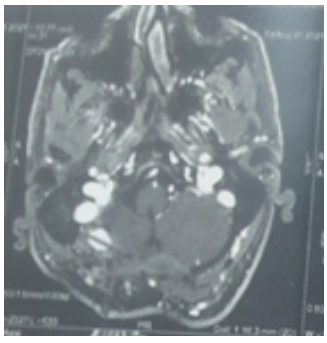

Figure 6: TDM image of the tumor stabilized

The patient developed hydrocephalus requiring the placement of a VPS valve then referred to conventional radiotherapy control cerebral CT scans have shown the stability of a nodule for several years or the need to continue monitoring.

Discussion

Hemangioblastoma is a rare, benign vascular tumor seen in young adults. The majority of hemangioblastomas are localized in the cerebellum (94.3%). (1.2) The clinical signs are not specific and depend on the site of the lesion (1). Hemangioblastomas are slightly more common in men than in women. The mean age at diagnosis of 47 years (2). It can develop sporadically or progress as part of Von HIPPEL-LINDAU's disease (VHL) (3).

On cerebral computed tomography, the cyst appears spontaneously hypodense, and the mural nodule isodense, after injection of the contrast product, it is greatly enhanced and becomes hyperdense. Solid tumors (types 3 and 4) are hyperdense after injection of the contrast medium. Generally, T1-sequence MRI after gadolinium injection makes the diagnosis by showing a tissue nodule which is very often accompanied by a large cyst. It is also able to highlight nodules not detected on CT after injection of gadolinium, in T1 (4, 5).

When with secondary polycythemia, it is only very exceptionally revealing, it accompanies hemangioblastomas of FCP in 10 to 40% of cases. It disappears with resection of the tumor, reappears in the event of recurrence and the percentage of polycythemia is then much higher (5). The radical treatment of the tumor remains complete surgical excision (6, 7,8). Excision by fragmentation or partial excision or puncture of the cyst are to be avoided given the risk of hemorrhage from this tumor which is highly vascularized.

Although it is a benign tumor and the surgical excision is total; Recurrence is possible, the recurrent nature of its lesions suggest the presence of a small number of tumor cells or nodules buried in the cystic wall or at a distance from the operative site giving rise to these recurrences (9, 10).

Conclusion

Treatment of hemangioblastoma is based on complete surgical excision. The risks of recurrence are linked to the presence of latent nodules either in the cystic wall or at a distance, hence the importance of regular monitoring of the patient with hemangioblastoma.

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