

Lateral intraventricular epidermoid cyst: A case report

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Abstract

Background: Epidermoid cysts originate from ectopic embryonic epithelial cells and are a very common type of benign intracranial tumor. Epidermoid tumors located in the lateral ventricle are exceedingly rare.

Case description: We present a rare case of a 55-year-old man complaining of a recurrent headache over a 2 year-period. A non-contrast CT scan and MRI of the head revealed a large mass within the right lateral ventricle. Gross total resection of the lesion was retained but unfortunately the patient refused surgery. The prognosis for patients who undergo surgery is excellent and depends on the quality of tumor removal.

Keywords: Epidermoid cyst; Lateral intraventricular; Surgery; Headache; Cerebellopontine angle.

1. Introduction

An epidermoid cyst is a slowly growing, rare and benign developmental tumor of an ectodermal origin. It is usually found in the central nervous system. Epidermoid cysts constitute 0.2–1% of intracranial tumors and are most often (60%) located in the cerebellopontine angle and in the parasellar region [1,2,5].

However, the incidence of intraventricular epidermoid cysts is low, and lateral intraventricular epidermoid cysts are even more rare. In this report, we describe the case of a 55-year-old man who developed an intraventricular epidermoid cyst and review the available literature.

2. Case report

2.1. History

A 55-year-old man was admitted to our department with 2 years history of recurrent headache. He denied having any pre-existing comorbidities, and his past medical history was unremarkable.

2.2. Clinical findings

On physical examination, the patient's vital signs were as follows: blood pressure, 118/85 mmHg; pulse rate, 78 bpm; body temperature, 37.3 °C; Glasgow Coma Scale (GCS), of 15 E4V5M6. He was no neurological dysfunction.

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2.3. Diagnosis assessment

The laboratory blood test was normal. The chest X-ray was normal. CT scan of the brain showed a hypodense lesion in the right lateral ventricle. There was an enlargement of the right lateral ventricle (**Figure 1&2**). On brain MRI, the lesion sized approximately 4 cm* 7 cm, showed low signal intensity on T1-weighted (T1W) imaging and high signal on T2-weighted (T2W) imaging. Gadolinium-enhanced MRI showed that the tumor was not enhanced. In T2 FLAIR, the tumor was hypointense. On diffusion-weighted imaging (DWI) sequences: the tumor was hyperintense, which suggested an intraventricular epidermoid cyst. (**Figure 1&2**).

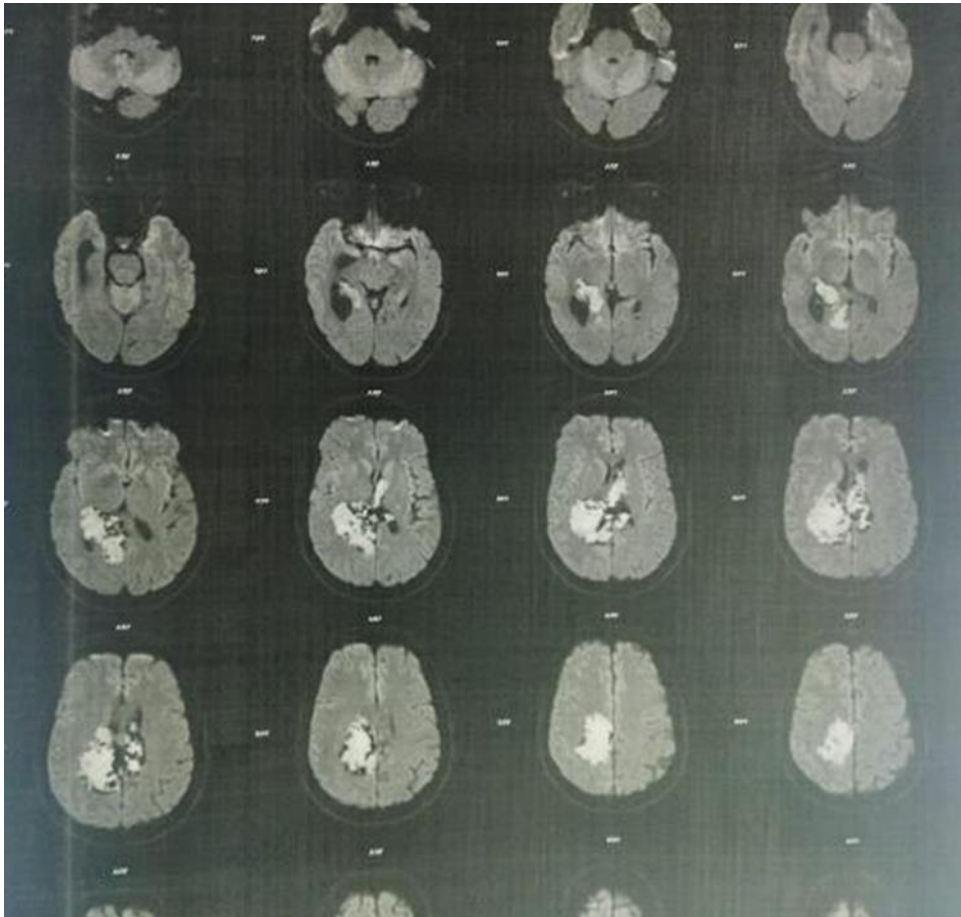


Figure 1: The axial MRI diffusion sequence showing a hyper signal of the cyst

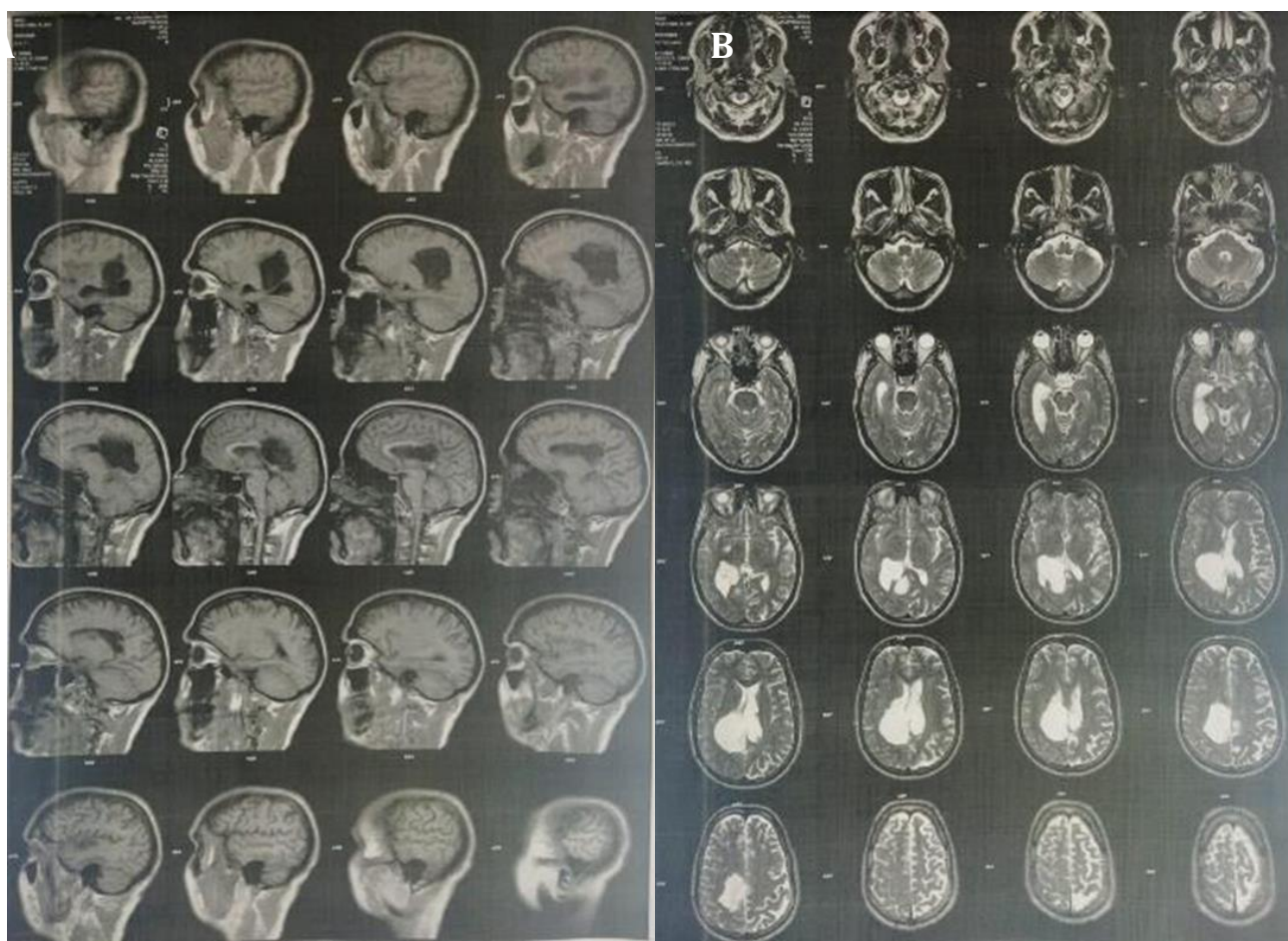


Figure 2 A: Sagittal section in T1 sequence of brain MRI diffusion showing the cyst in hypointense with regular contours at the expense of the lateral ventricle. **B:** Axial section in T2 sequence of brain MRI diffusion showing the cyst in hypersignal with regular contour at the expense of the lateral ventricle

2.4. Follow-up

A total microscopic removal of the mass was retained, but the patient refused the surgery and tried to leave the hospital. At the 6-month follow-up, the patient was examined as an outpatient and was in the same condition.

3. Discussion

Epidermoid cysts also known as pearly tumors, are relatively common among benign intracranial tumors. They are the most commonly located in the CPA (cerebello-pontine angle). Intraventricular epidermoid cysts even if reported in the literature are very rare, the location in the lateral ventricles are exceedingly rare [1-5, 7,8].

MRI (Magnetic Resonance Imaging) represent the main diagnostic technique for these lesions and typically characterized hypointense on T2-FLAIR sequences and hyperintense on DWI, without enhancement [1-4]

The clinical symptoms are variable and due to high intracranial pressure, such as headache and vomiting secondary to CSF (cerebro-spinal fluid) obstruction (hydrocephalus) caused by tumor growth obstructing the foramen of Monroe [1,4-6]

Surgical resection is the treatment of choice. It is important to remove completely as possible [7-11].

The prognosis for patients who undergo surgery is excellent and depends on the quality of tumor removal [1,7,9].

4. Conclusion

Intraventricular epidermoid cysts are very rare tumors. Their diagnosis depends mainly on MRI examination. Surgical resection is the recommended treatment. The prognosis is good.

Compliance with ethical standards

Disclosure of conflict of interest

The authors report no conflicts of interest.

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