

A Rare Case Report Of Of Meningioma; Fatality Of Meningioma Angiomatous

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Abstract. *Meningioma is a common central nervous system tumor and relates with good outcome. This case report highlight the fatal case of meningioma. Female, 39 years old, came with slurred speech, deficit neurologis was minimum. Imaging showed dural tail, extraaxial mass sugesstif meningioma. Patient was performed craniectomy tumor removal and lumbar drain pre-operative insertion. After 8 days post operative patient died due to massive cerebral edema. The histopathology result showed the angiomatous meningioma. This case report showed the fatal case of meningioma and recommend the endovascular embolism approach to reduce intra operative bleeding and improve the outcome of patients.*

Keywords: Meningioma angiomatous, female, fatal, outcome.

Abstrak. Meningioma adalah tumor sistem saraf pusat yang umum terjadi dan berhubungan dengan hasil akhir yang baik. Laporan kasus ini menyoroti kasus meningioma yang fatal. Wanita, 39 tahun, datang dengan bicara cadel, defisit neurologis minimal. Pencitraan menunjukkan ekor dural, meningioma sugestif massa ekstraaksial. Pasien dilakukan kraniektomi pengangkatan tumor dan pemasangan drainase lumbal pra-operasi. Setelah 8 hari pasca operasi pasien meninggal dunia karena edema serebral masif. Hasil histopatologi menunjukkan meningioma angiomatosa. Laporan kasus ini menunjukkan kasus meningioma yang fatal dan merekomendasikan pendekatan emboli endovaskular untuk mengurangi perdarahan intra operatif dan meningkatkan hasil akhir pasien.

Kata kunci: Meningioma angiomatosa, perempuan, fatal, akibat.

1. Introduction

Meningioma is a common primary central nervous tumor, and usually benign and slow growing, that are derived from meningen layer(Huntoon et al., 2020). Incidence of meningioma 8.1 cases per 100000 people, according to the study done in US until 2018(Cao et al., 2022).

The World Health Organization (WHO) classified meningioma into three grades. Grade I meningiomas occur often in female and have a good outcome. On contrast, WHO grade III meningiomas correspondend with aggressive behaviour with metastatic dissemination. WHO grade II meningiomas show choroid, common atypical mengioma(Lee et al., 2017).

On the other hand, mortality of meningioma varied based on the grade of meningioma, age at diagnosis, and sex. The ten year observed and relative survival of meningioma was 72% and 91% respectively. Tumor-related mortality varied by sex and increased with age at diagnosis and the WHO grade of the tumor. The overall 10-year cumulative incidence of meningioma recurrence was 9%(Holleczek et al., 2019).

This case report highlights the huge edema formed in meningioma and the fatal case of meningioma..

2. Case Description

A female Mrs S, 39 years old, came to emergency department with sudden slurred speech. There was no weakness in extremities. She complained focal seizure in her lips since 2 months ago. She visited regularly neurology outpatient department with the symptoms of focal seizure. She complained no fever, cough, vomiting.

Physical diagnose: GCS 15, BP 140/80m HR 102, RR 21, T 37. General survey no abnormalities in her physical examination. Neurological examination showed physiological reflex normal and no pathological reflexes.

Neurologist diagnosed with seizures and treated with antiseizure diazepam 10 mg iv, clobazam 0-0-10mg, and carbamazepine 1 tab.

Imaging findings showed extra-axial hyperdens mass lesion In left parietal with surrounded cerebral edema (Figure 1). Two weeks after admission, she was performed craniectomy tumor removal and lumbar drain pre-operative. Intraoperative findings showed extra-axial mass, hard in consistency and it was hard to dissected to the below surface. The bleeding was quite severe and 4 packed red cells transfusion and two PRCs in the next day was administered. One week after the operation, the edema was progressing and the patient died in day 8th after the operation.

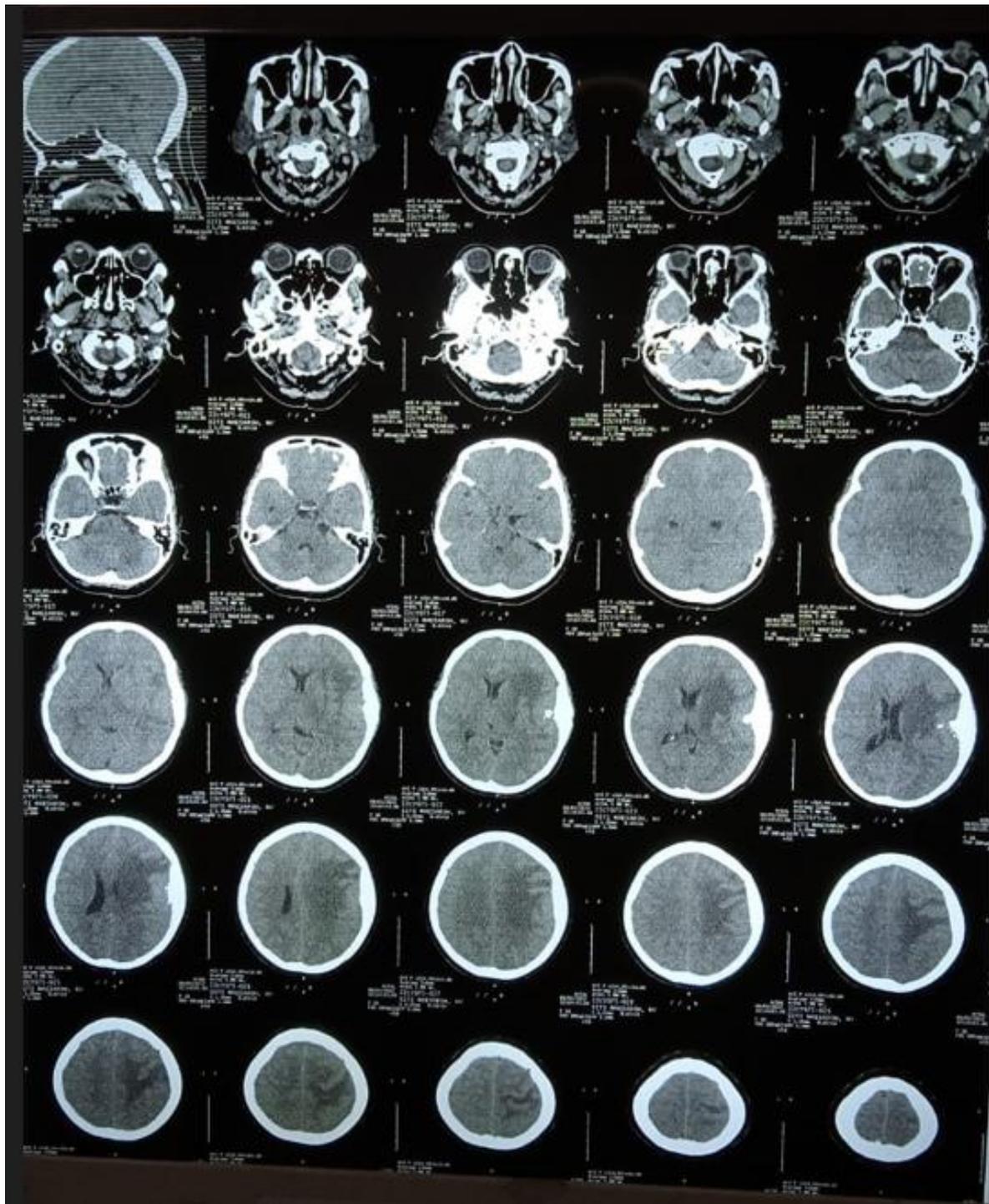


Figure 1.

Microscopic findings.tumor mass consisted of solid and oval, smooth cromatine, eosinophilic sitoplasm and intranuclear pseudoinclusions. Stroma fibrotic and many congestive vessels and hyperemia and hemosiderne. Diagnose. Variabt angiomatous and meningoethelial (WHO grade 1) meningioma (Figure 2).

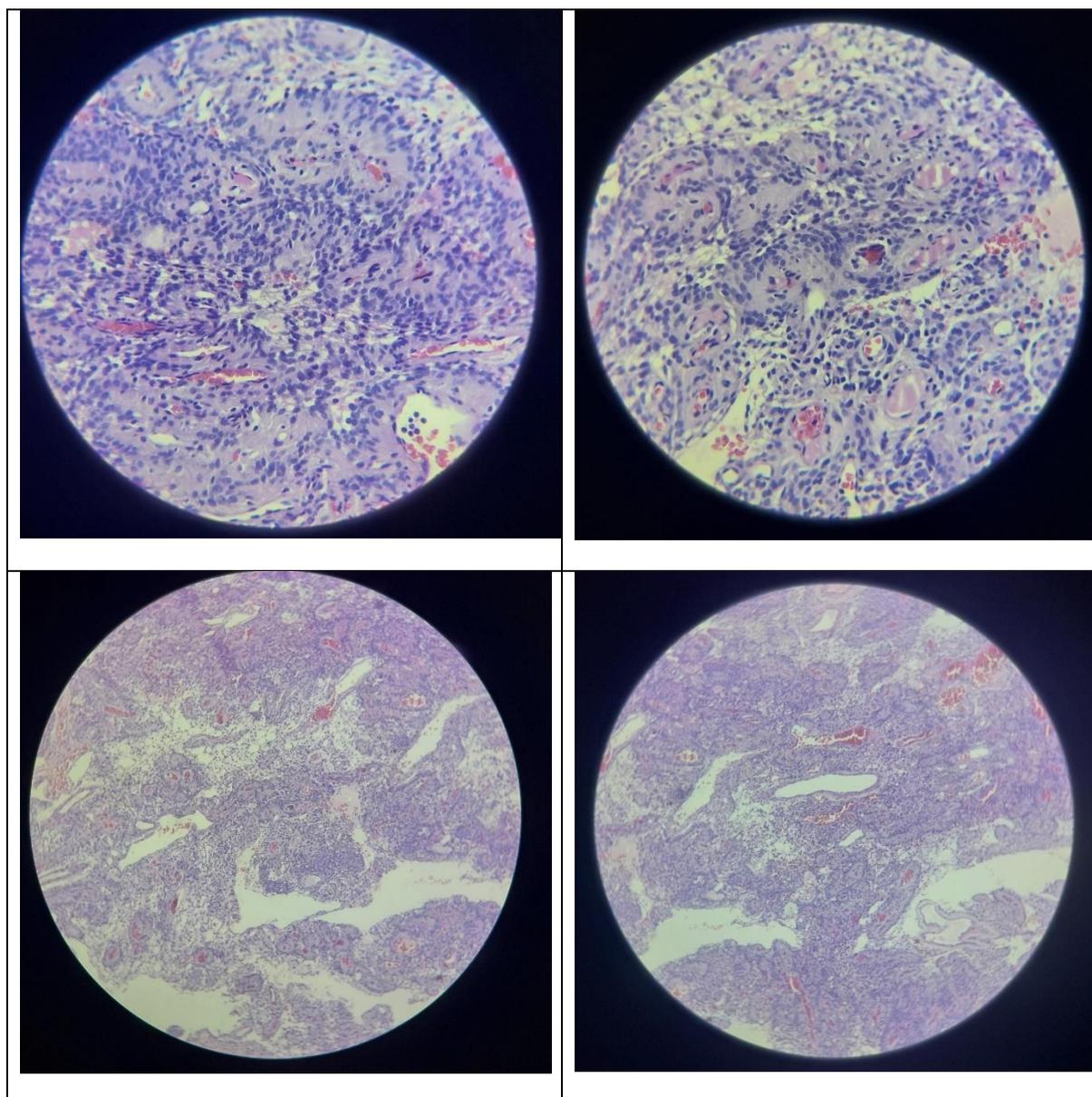


Figure 2 Microscopic Appearance of Angiomatous Meningioma (above, 100x magnification, below 40x magnification, haematoxylin eosin staining)

3. Discussion

Angiomatous meningioma is a rare meningioma and usually occurs in female. However, there are several reports that described about meningioma angiomatous in male patients (Arinda et al., 2019; Liu et al., 2021). Based on WHO classification this meningioma is classified into grade I, with prevalence of 85-90% and 5 year recurrence rate in 5% (Bi et al., 2016). Imaging could not differentiate the type of meningiomas, however, based on the massive peritumoral edema, suggest that angiomatous meningioma (Bi et al., 2016). As in this patient, preoperative imaging showed wide edema that push the cerebral hemisphere into contralateral site. The treatment of angiomatous meningioma is gross total removal (Liu et al., 2021). In cases of large draining veins or large feeding arteries found, the bipolar coagulation use to stop bleeding or use the vessels intracerebral clips to reduce the blood flow to the tumor. The aim of surgery to resect all tumor and not compromising the anatomical structures. As in this patient, preoperative lumbar drain was inserted and after one hour surgery, after opening the duramater, 10-20 cc of liquor cerebrospinal was removed.

There are several complication that found after the surgery, deep vein thrombosis. DVT is treated with low molecular weight heparin administration for 5 days and simarc for three months. Risk of Venous thromboembolism (VTE) is three times higher than any other brain tumors. This plausible reason is hypercoagulation state induced by tumor. The coagulation factor is induced or activated by surface of meningioma or damage of vascular endothelial because of bleeding. Surgery released the brain thromboplastin, cause prolong immobilization. This immobilization causes stasis of flow in the vein. Another contributing factor to VTE is high dose steroid administration after surgery. 5 percent DVT happened in patients with prophylaxis of VTE (Hoefnagel et al., 2014). Patient in this case report did not show any DVT sign and symptoms.

4. Conclusion

This case report highlights the huge edema formed in meningioma and the fatal case of meningioma. The previous reported complication after meningioma surgery warrants the need for better VTE prophylaxis for each patient.

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