

# Case Report and Analysis: A Case of Cerebellar Lymphoma

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## Abstract

Intracranial lymphomas are rare. Lymphomas account for 1%–3% of central nervous system tumors. Most are in the tentorium and around 50% are in the cerebral hemisphere, whereas those in the posterior fossa account for 10%–30%. A case of cerebellar lymphoma was admitted and treated in our hospital as follows.

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**Categories:** Radiation Oncology, Neurosurgery

**Keywords:** chemotherapy, radiotherapy, lymphoma, intracranial tumor, immunohistochemistry

## Introduction

Intracranial lymphomas are rare. Lymphomas account for 1%–3% of central nervous system tumors [1]. Most are in the tentorium and around 50% are in the cerebral hemisphere, whereas those in the posterior fossa account for 10%–30% [1]. A case of cerebellar lymphoma was admitted and treated in our hospital as follows.

## Case Presentation

A 60-year-old male presented at the hospital complaining of headaches and vomiting for more than 20 days. Upon examination, the patient's lower limbs were observed to have higher muscle tension, with 4/6 muscle strength and blunted knee jerk. His lower limbs were positive for Babinski's sign. Cranial MRI showed a possible cerebellar glioma. During surgery, the tumor was soft, brown red, highly vascular, and measured 4 cm × 3 cm × 5 cm. The boundary with cerebellum was clear. The pathologic diagnosis after surgery was cerebellar cancer. The immunohistochemistry results were as follows: cancer cell CD20 (+++), Bcl-2 (+), CD10 (-), Bcl-6 (-), MUM-1 (+), Ki-67 (+), CD3 (-). The lesion was consistent with large B cell lymphoma. After surgery, the headache and vomiting did not recur. The patient received radiotherapy and chemotherapy. The contact was lost half year after surgery with no follow-up visits.

## Discussion

There is no obvious difference in the incidence of intracranial lymphomas between males and females, and the majority of patients are 40 to 60 years old. Most patients die with a short course within half a year. In the early stage, the patients experience headaches, vomiting, and other signs of high intracranial pressure. Imaging usually reveals non-specific findings. The definitive diagnosis is usually provided after histopathologic study. Hormone therapy and diuretics rapidly improve the symptoms, but they recur after withdrawal of the drugs. With bigger tumors, surgery should be performed to release the high intracranial pressure if patients have symptoms of high intracranial pressure, assisted by radiotherapy and chemotherapy.

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Excision of the tumor does not improve patient survival [2]. In China, the average lifespan of patients with intracranial lymphomas is about six months. Overseas, the average patient survival is around one year, with some reaching 3.5 years; the longest was four years and nine months. The prognosis is related to the range of pathologic changes, the degree of differentiation, KPS score, and the age of the patient; survival is not related to the source of the T and B cells or the size of tumor upon excision [3].

## Conclusions

N/A

## Additional Information

### Disclosures

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