

# Adult medulloblastoma: A rare case report and literature review

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## Abstract

**Background:** Medulloblastoma is a highly malignant embryonal tumor which commonly arises in the cerebellum. It is relatively rare and accounts for less than 2% of all primary brain tumors. The tumor primarily occurs in childhood; however, rarely, it may be found in adult population. In addition, medulloblastoma in adult population shows features which are quite distinct from the pediatric group.

**Case Description:** We report the case of a 33-year-old man who presented to our institution with a history of blurred vision of both eyes for 5 months preceded by intermittent headache since the previous year. Preoperative investigation suggested a posterior fossa mass and we suspected an ependymoma. The patient underwent ventriculoperitoneal shunt and craniotomy tumor removal, followed by radiotherapy. Histopathological and immunohistochemical examination were performed, and the results showed a diagnosis of medulloblastoma.

**Conclusion:** This case is exceptional because adult medulloblastoma occurrence in our center is extremely rare, and the diagnosis can only be established through histopathological and immunohistochemical studies.

**Key Words:** A rare case of adult medulloblastoma, fossa posterior brain tumor, immunohistochemical studies

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## INTRODUCTION

Medulloblastoma is a malignant embryonal tumor that commonly arises in the cerebellum.<sup>[17]</sup> The tumor primarily affects children and the occurrence in adults is rare.<sup>[9]</sup> Most patients with the malignancy show manifestation of increased intracranial pressure, which is best explained as the result of hydrocephalus.<sup>[3,6]</sup> Medulloblastoma gives widely variable and nonspecific findings in imaging modalities;<sup>[2]</sup> hence, histopathological examination should be performed in order to confirm the diagnosis. The etiology of medulloblastoma has not been so well-described in most patients, both children and adults;<sup>[15]</sup> however, it seems that various mechanisms leading to medulloblastoma are different among the two groups.<sup>[16]</sup> In addition, it has been reported that medulloblastoma in adults has certain clinical and pathological features which are distinct

with the presentations in children.<sup>[4,8]</sup> Low incidence of medulloblastomas in adults gives us a narrow perspective about the disease nature. Moreover, this also makes standard procedures to treat the tumor in adults that are very hard to establish. We report the case of a 33-year-old man with a cerebellar mass, which was diagnosed as medulloblastoma according to the histopathological and immunohistochemical findings.

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