

# Anaplastic meningioma in an adolescent: a report of a rare case and brief review of literature

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## Abstract

**Objective** Anaplastic meningioma is an uncommon neoplasm in childhood and adolescence. Due to the rarity, treatment options for anaplastic meningioma in this age group are not clearly outlined.

**Case** A 15-year-old boy presented with a left forehead swelling with a history of a left frontal tumor. Radiological investigations revealed a dura-based tumor with a large extracranial and a smaller intracranial component. Craniotomy with near-total excision of the tumor was performed. Histopathological examination of the tumor showed features of an anaplastic meningioma. The patient is currently receiving radiotherapy and chemotherapy. However, he has developed scalp swellings while on radiotherapy.

**Conclusion** Anaplastic meningioma is extremely rare in children. Extensive sampling is required to recognize the meningotheelial nature of the tumor and immunohistochemistry helps in making an accurate diagnosis in such cases. Therapeutic interventions in such cases need to be closely monitored due to the aggressive behavior of this tumor.

**Keywords** Anaplastic meningiomas · Adolescence · Histopathology · Radiotherapy · Prognosis

## Introduction

Meningiomas comprise less than 5% of primary intracranial tumors in children [1, 5]. Anaplastic/malignant meningioma (grade III tumor) comprises a minority of the total number of meningiomas [1, 10]. Radiological appearance of meningioma in this age group shows a higher frequency of cystic change and absence of dural attachment of the tumor [1, 7]. Anaplastic meningioma may be difficult to recognize as being meningotheiomatous in origin, especially if whorls and characteristic nuclear features are not very evident. An accurate diagnosis requires thorough sampling of the tumor in conjunction with immunohistochemistry.

We describe the case of a young boy with a recurrent tumor in the left frontal region, which was diagnosed as anaplastic meningioma on histopathology. This rare pediatric neoplasm is discussed along with a brief review of the literature.

## Case report

A 15-year-old boy presented with a rapidly enlarging swelling in the left forehead (Fig. 1) for the past 2 months. There was an associated history of intermittent headaches. He did not give any history suggestive of motor or sensory deficits, vomiting, or gait disturbances. Four months prior to this presentation, he underwent excision of a left frontal tumor at another hospital. Records of his previous surgery were not available.

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