



Spontaneous hemorrhagic presentation of pilocytic astrocytoma in an adult

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Introduction

Acute neurological deterioration from intratumoral hemorrhage into a cerebellar pilocytic astrocytoma in adults is an extremely rare presentation of this otherwise benign, predominantly pediatric tumor. Review of the literature only reveals a few case reports on this topic. We have chosen to review the literature in an attempt to identify similarities between these patients reported and the adult patient that presented to our institution with a hemorrhagic pilocytic astrocytoma.

Methods

A 30 year old female presented to our Emergency Department with spontaneous neurologic deterioration, was found to have spontaneous hemorrhage from a posterior fossa tumor. After surgical decompression the lesion was found to be pilocytic astrocytoma. Because of this unusual presentation, we performed PubMed and Medline searches for “pilocytic astrocytoma,” “adult,” and “hemorrhage” and found 365 results. The titles were reviewed and relevant articles were selected for literature review.

Results

We found a few case reports primarily in the Japanese, Korean and Chinese literature which describe case reports of acute spontaneous hemorrhage in a pilocytic astrocytoma in adults, and these were usually reported for pilocytic astrocytomas in supratentorial locations. Our patient had only minimal cerebellar ataxia, and otherwise made an excellent neurologic recovery.

Conclusions

Tumor hemorrhage as an initial presentation for benign pilocytic astrocytoma in adults is extremely rare. Underlying reasons for some tumors to present with hemorrhage is poorly understood. Further investigation into finding an association with concurrent vascular lesions, incidence of dysplastic capillary beds, evidence for necrosis or other reasons for hemorrhage to occur is still needed.

Learning Objectives

Become familiar with an alternate presentation of pilocytic astrocytoma in the adult population

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