

Chordoid glioma with an unusual presentation: Case Report and Review of Literature

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ABSTRACT

Background: Chordoid glioma is a rare neoplasm, considered a low-grade neoplasm, due to its location in the hypothalamus and anterior third ventricle, it presents a challenge for neurosurgeons to treat it adequately with a complete resection without significant postoperative morbidity and mortality. **Case Description:** A 42 year old male patient presented with a one year history of major depressive disorder with psychotic features associated with generalized tonic clonic seizures. Brain MRI with contrast revealed a suprasellar mass extending into the third ventricle. The mass was approached through an interhemispheric transcallosal transventricular subforniceal approach. Pathology revealed a Chordoid Glioma. The patient had a complicated post operative period with development of diabetes insipidus followed by intractable hyponatremia and died from malignant meningitis. **Conclusions:** Chordoid glioma is a rare neoplasm incorporated in 2000 into the World Health Organization (WHO) classification. Due to its rarity it is seldom considered in the differential diagnosis of suprasellar masses. Moreover its unusual presentation and difficult location present a challenge for surgical and medical management.

Keywords: Chordoid glioma, Hypothalamic, Diabetes Insipidus

INTRODUCTION

Chordoid glioma is a rare low-grade tumor described for the first time in 1998 as a distinct clinical-pathological entity. The histopathological features of a Chordoid glioma are consistent with a slowly growing neoplasm. Gross total surgical resection would be curative due its inherent pathological behavior. However, due to its anatomical neighborhood its prognosis is comparatively poor.

CASE REPORT

HISTORY AND EXAMINATION

A forty-two years old, right-handed male was

referred to our service following a one year treatment for acute-onset major depressive disorder with psychotic features after having a generalized tonic clonic seizure. On evaluation he was found confused, oriented only in person. Cranial nerves were normal and there was no evidence of

weakness. Laboratory examination was notable for hyponatremia. A computed tomographic (CT) scan showed a large suprasellar hyperdense mass extending upward into the third ventricle. Magnetic resonance imaging (MRI) revealed a 2.5 x 4.3 x 5.0 centimeters mass centered at the hypothalamus with extension into the third ventricle (Fig. 1). On T-1 weighted images it was isointense to the brain and was hyperintense on T-2 weighted images. It showed marked enhancing with gadolinium injection. There was a small cystic area at the inferior portion of the tumor.

OPERATION

A subtotal tumor resection was performed through a right parasagittal craniotomy using an

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