

**Case Report**
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## Cordoid Meningioma A Case Report

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### ABSTRACT

**Introduction:** Meningiomas are tumors of the central nervous system derived from the arachnoid layer of cells, represent less than 3% of all primary intracranial tumors in children, are prevalent in adolescents, and are rare in younger ages. Pediatric cases represent approximately 1.5% of all intracranial meningiomas, and very few cases show aggressive histology. The WHO classification meningioma divided into three grades: Grade I benign; II, atypical; and III, anaplastic / malignant. Chordoid meningioma grade II / atypical meningioma is a rare subtype, which represents only 0.5% of all meningiomas, have high growth rates, higher recurrence and greater possibilities to invade the brain parenchyma compared with meningiomas benign. One possible explanation for the high recurrence rate may be related to the quality mucoid stroma, which facilitates extension of tumor and makes it difficult to achieve a complete resection, which leads to subsequent recurrence.

**Case Report:** We report the case of male patient 4 years of age diagnosed with meningioma Grade II, with clinic 2 months of evolution who presented progressive neurological deterioration, tumoral exeresis was performed in 3 opportunities and placement system ventriculo peritoneal in the course of 1 month and radiotherapy.

**Comments:** Accurate diagnosis, therefore, assumes importance because these tumors have an aggressive clinical course and high probability of recurrence so knowing the pathological Clinical Aspects of this rare neoplasm is essential for the Treatment and Comprehensive monitoring.

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**Received:** September 23, 2021; **Accepted:** October 11, 2021; **Published:** October 18, 2021

### Introduction

Meningiomas are neoplasms of the central nervous system derived from the arachnoid cell layer, represent less than 3% of all primary intracranial tumors in children, are predominant in adolescents, and are rare in younger ages [1].

Pediatric cases represent approximately 1.5% of all intracranial meningiomas, and very few cases show aggressive histologic features. The WHO classification divides meningioma into three grades: grade I benign; II, atypical; and III, anaplastic / malignant [2,3].

Cordoid meningioma grade II / atypical meningioma, is a rare subtype, representing only 0.5% of all meningiomas, has high growth rates, greater recurrence, and greater possibilities to invade the brain parenchyma compared to meningiomas benign, a possible explanation for the high recurrence rate could be related to the mucoid quality of the stroma, which facilitates tumor extension and makes complete resection difficult to achieve, leading to subsequent recurrence [4,5].

### Case Report

We describe the case of a 4-year-old male patient with symptoms of 4 months of evolution, beginning with a frontal headache of strong intensity, drowsiness and dizziness, increasing in

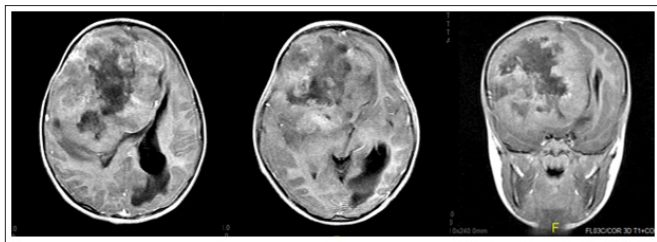
frequency, amaurosis, ataxic gait, and decreased muscle strength predominantly on the left. To the center of their locality who request an evaluation by neurology, which is carried out at Hospital de Caracas where they indicate a CT of the skull, showing an isodense image that displaces the midline and collapses the right ventricle, for which they refer to the Hospital de Niños Dr. "José Manuel De Los Ríos" in March 2016 where he was admitted and evaluated by the neurosurgery and oncology Service.

**Surgical interventions:** required tumor excision on 3 occasions and placement of ventricular peritoneal shunt system over the course of 1 month Pathological findings: Grade II Cordoid Meningioma according to WHO. Extensive necrosis 70%, recent focal hemorrhage, microcalcifications and formation of microabscesses.

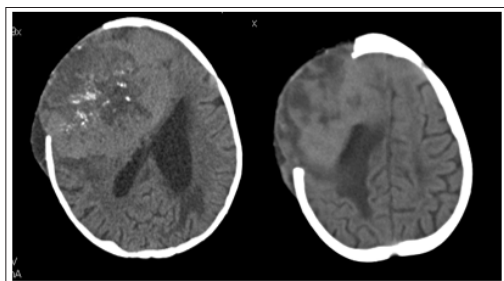
**Treatment Received:** External radiation therapy up to a dose of 2160 cGy, with regular tolerance

**Evolution:** I present progressive neurological deterioration, with in-hospital complications; Infections associated with health care, later in view of not being possible another tumor exeresis and critical conditions of the family patient, he requests discharge and transfer to his local hospital where he dies

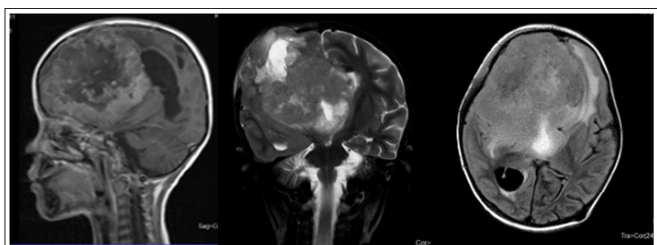
### Brain MRI Diagnosis (March 16, 2016)



Computerized axial tomography of the skull (April 4, 2016) 15 days after the first surgical intervention (March 20, 2016) Right fronto parietal craniectomy + Subtotal exeresis of the space-occupying lesion right fronto parietal plus duroplasty



Brain MRI (May 4, 2016) 26 days after second tumor pruning (April 8, 2016) and 20 days after third tumor pruning (April 14, 2016) and placement of ventricular peritoneal shunt system



### Discussion

Grade II cordoid meningioma / atypical meningioma has high growth rates, greater recurrence, and greater chances of invading the brain parenchyma compared to benign meningiomas [2,3]. As evidenced in the case described where mitotite capacity became evident after each of the interventions performed, with marked recurrence and tumor progression. Surgical resection of the lesion and radiotherapy is the treatment to be followed, however, resection does not guarantee a good result (3-6) and it can be observed that despite extensive recessions, these did not lead to improvement in the patient, limiting said progression in the initiation and continuity of cancer treatment with drugs or radiation therapy.

The aggressive behavior and the tendency to early recurrence of cordoid meningioma is well documented, being more aggressive at younger ages, so the precise diagnosis assumes importance [1,3]. Being able to go unnoticed with subtle symptoms such as occasional headaches in the case of this patient, having a disease of 2 months of evolution, prior to the medical consultation.

The purpose of this presentation of cases was to publicize the clinical-pathological aspects of these infrequent neoplasms, emphasizing the scarce symptoms that may be present initially, the adequate histopathological diagnosis supported by IHC studies, and the constant follow-up after treatment, which is crucial in these neoplasms with a high proportion of malignant histological

subtypes and probability of recurrences. In addition, it revealed the infrequency of the histopathological varieties presented.

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