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### CEREBELLITIS, CLINICAL CASE PRESENTATION

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### AIMS & OBJECTIVES: INTRODUCTION: Acute

cerebellitis is an inflammatory disease, which occurs as a primary infectious disease, postinfectious or postvaccination disorder. Clinical recovery is usually reported in 2 to 3 months in 90% of patients. Brain MRI shows cerebellar edema.

METHODS: Observational descriptive work.

RESULTS: Case 1:9 y.o. male patient; started with oppressive headache 10 days before admission, later adding vomits, unsteady gait and dysarthria. Admission MRI: cerebellar vermis edema without ventricular system dilation. He presented acute sensory depression secondary to intracranial hypertension. MRI showed: increased intensity of both cerebellar hemispheres with important mass effect and dilation of the supratentorial ventricular system. He evolved favorably. Case 2: 10 y.o. female patient; began 10 days before admission with oppressive headache and subsequently added vomiting. At admission manifested signs of intracranial hypertension, CT-MRI with hydrocephalus and injury in the right cerebellar hemisphere. She required external ventricular drainage, empirical antibiotic treatment and corticosteroid pulses. She evolved favorably. Case 3: 6 y.o. male patient, consulted for headache, vomiting, blurred vision and unsteady gait. CT and MRI showed cerebellar edema. He completed empirical antibiotic treatment without germ rescue and received steroid pulse therapy with favorable evolution.

**CONCLUSIONS: CONCLUSION:** Cerebellitis is an uncommon pathology and difficult to diagnose, with variable evolution, ranging from a benign self-limited process to a fulminant presentation by compression of the posterior fossa and acute hydrocephalus. That is why it constitutes a medical and surgical emergency that requires a high level of suspicion and an MRI performance

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### PEDIATRIC POSTERIOR ISCHEMIC STROKE DUE TO COMPRESSION OF VERTEBRAL ARTERY: BOW HUNTER'S SYNDROME

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**AIMS & OBJECTIVES:** Acute traumatic stroke of the cerebellum is rarely seen in children. It may occur after minor trauma or by rotational movements of the head. Causes may include compression and/or injury of the posterior vertebral

artery secondary to bone defect. One particular form, "Bow Hunter's stroke", originally described by Sorensen in 1978, results from vertebral-basilar insufficiency induced by head movements causing intermittent vertebral artery compression at the atlanto-axial junction. Acute ischemic lesions in this vascular territory should be suspected, and investigated using imaging studies such as CT and brain MRI.

**METHODS:** We present a case of a 7-year-old male with unremarkable medical history, with subacute left hemiparesis. MRI shows acute ischemic stroke secondary to dissection of the posterior vertebral artery, then confirmed by conventional angiography. CT reconstruction showed presence of a bone spur compressing the spinal canal at the level of the Occipitoaxial junction. Although anticoagulation was prescribed, a second event occurred 20 days later, when he experienced vomiting and loos of consciousness. After surgical resection of the bone defect, patient post-operative recovery was uneventful and no further ischemic events were observed.

#### **RESULTS:** Surgical resolution

**CONCLUSIONS:** Underlying causes or structural anomalies predisposing to stroke should be carefully evaluated and ruled out, since most are treatable and recurrences can be prevented, as in this case.

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#### INCREASING OF DIAMETER OF THE OPTIC NERVE SHEATH AS A RISK FACTOR FOR MORTALITY AND COMORBILITIES IN PEDIATRIC PATIENTS UNDERGOING BRAIN TUMOR SURGERY

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**AIMS & OBJECTIVES:** To determine whether the increase of the optic nerve sheath measured by ultrasound is associated with increased mortality and comorbidities in pediatric patients undergoing brain tumor surgery.

**METHODS: DESIGN::** Retrospective observational cohort study. between january 2019 to november 2019. The following variables were analyzed: diameter of the optic nerve sheath, mortality and comorbidities. Patients were divided into two groups, those with an enlarged optic nerve sheath diameter and those with normal diameter. Percentages and medium frequencies were measured with standard deviations, using fisher's exact test and mann-whitney's test. Setting: tertiary referral PICU. Patients: All pediatric patients admitted to the PICU who were operated of brain tumor resection were included, with subsequent measurement of the optic nerve sheath by ultrasound. Interventions: None. Selection procedure: consecutive sample.

**RESULTS:** From January 1, 2019 to November 1, 2019, 44 pediatric patients underwent resection of brain tumor, 12 met the selection criteria. The increase of the diameter of the optic nerve sheath occurred in six patients; of these, six (50%) presented comorbidities (p 0.015). No statistically significant

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