2692 – Case Report: Spinal Metastasis of Medulloblastoma Causing Rapid Spinal Cord Injury and Treatment Thereof

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• None of the authors have any relevant disclosures pertaining to the information contained in this material
Introduction

• Medulloblastomas represent 40% of posterior fossa pediatric brain tumors
• Treatment with gross total resection then radiation and chemotherapy
• Medulloblastomas can metastasize to the spine
• Frequently medulloblastoma spinal metastases are not removed as they do not create neurological symptoms
• We report spinal medulloblastoma metastasis with improvement after resection
Clinical Presentation

• A 5-year-old male presented with five days of worsening nausea, vomiting and nocturnal headaches. The father noted unsteadiness for the preceding few weeks. A CT of the head revealed a large posterior fossa tumor and tri-ventricular hydrocephalus. An external ventricular drain (EVD) was placed emergently for hydrocephalus. MRI of the brain revealed a large posterior fossa contrast enhancing mass effacing the fourth ventricle.
Clinical Course

• On hospital day #3 a suboccipital craniectomy was performed with gross total resection of the tumor with pathology consistent with a medulloblastoma Group 3/4 non-WNT, non-SHH. On POD #2 the patient was noted by physical therapy to have more trouble walking and to be more unsteady.
Clinical Course

• An MRI of the spine with and without contrast was obtained which revealed diffuse contrast enhancing lesions with a significant lesion causing mass effect at T8-9 level. After the MRI, 8 hours after initial exam, patient had multiple beats of clonus in his ankles and decreasing strength in lower extremities compared to earlier in the day.
Clinical Course

• The patient was taken emergently for a T7-9 laminoplasty and resection of the intradural tumor. The pathology of the intradural, extramedullary tumor was the same medulloblastoma Group 3/4.
Clinical Course

• Three weeks after surgery patient started clinical trial ACNS 0332 of radiation and chemotherapy. After completion of the proton beam radiation therapy he returned for vincristine, cisplatin and cyclophosphamide. They remained working with physical therapy and occupational therapy but had good return of function of the lower extremities.
Discussion

- Spinal metastases may occur in pediatric cases of medulloblastoma. We present a case of rapid neurologic decline due to spinal cord injury shortly after extirpation of the posterior fossa medulloblastoma secondary to spinal cord compression from a spinal medulloblastoma metastasis. The patient achieved improvement in both pain and function after surgical resection of the offending lesion. We suggest surgery should remain a primary consideration to treat symptomatic craniospinal metastases of medulloblastoma. Previous reports of medulloblastoma spinal metastases causing spinal cord injury and their treatment are absent from previous published literature to our knowledge.