

phone calls following the collision; however, she became non-responsive a short time later. Patient was transported to an outside hospital, had a tonic-clonic seizure, was intubated, and then transferred to Children's Hospital of Wisconsin. Computed tomography (CT) of head revealed a left frontotemporal skull fracture and large heterogeneous left frontal mass with calcification and hemorrhagic transformation. Subsequent magnetic resonance imaging (MRI) of brain revealed a large (8.3x7 cm), lobulated, avidly enhancing, extra-axial heterogeneous mass that appeared consistent with a meningioma. Within 10 hours of admission, intravenous epinephrine was initiated to maintain cerebral perfusion and blood pressures.

**Setting:** Pediatric hospital.

**Results or Clinical Course:** Patient extubated on hospital day 3 and progressed well in physical and occupational therapy. She was discharged home on hospital day 5 without significant cognitive or functional deficits. She returned 2 months later, once fully recovered, for tumor resection, with pathology consistent with meningioma.

**Discussion:** This is the first reported case, to our knowledge, of a meningioma bleed secondary to a traumatic brain injury. The patient's underlying brain pathology may have predisposed her to hemorrhage and led to a more significant degree of brain injury.

**Conclusions:** The mass effect from brain tumors like meningiomas are known to cause cognitive and functional deficits. Although meningiomas are slow growing and considered relatively benign, this case illustrates the potential acute complications of trauma in a patient with meningiomas.

#### Poster 443

##### Prevalence of Tracheostomy and Gastrostomy Tube Utilization in Acute Traumatic Brain Injury in the Pediatric Population.

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**Disclosures:** M. McLaughlin, No Disclosures.

**Objective:** Evaluation of prevalence of tracheostomy and gastrostomy tube use in the pediatric population in patients being treated for traumatic brain injury. Design: A retrospective chart review of patients aged 3-18 being treated for acute traumatic brain injury and hemorrhage on imaging.

**Setting:** A local pediatric hospital.

**Participants:** 115 patients aged 3-18 with acute traumatic brain injury.

**Interventions:** Placement of a tracheostomy and/or a gastrostomy tube. Main Outcome Measures: Each case was evaluated for the use of a tracheostomy and/or gastrostomy tube placement and correlated with the severity of traumatic brain injury. Additionally, the amount of time in relation to utilization of tracheostomy or gastrostomy was evaluated in comparison to the amount of inpatient hospital days.

**Results:** The overall prevalence of gastrostomy tube placement in the acute traumatic brain injury population studied was 9.6%; however, the placement of tracheostomy tube placement was 7.8%. Both were found to be associated with a severe Glasgow Coma Scale (GCS) of 8 or below ( $P=.014$ ) and this population had a higher utilization percentage than those patients with mild or moderate GCS. Average time from admission to placement of gastrostomy and

tracheostomy tube placement was 11.6 and 10.3, respectively. There was also a statistically significant ( $P < .05$ ) difference in the number of acute inpatient hospital days between those who did not receive a gastrostomy or tracheostomy tube (5.5 days) and those who received both (20 days). Gastrostomy and tracheostomy tube placement was also found to be statistically associated with transfer to an inpatient rehabilitation facility.

**Conclusions:** Pediatric patients with acute severe GCS were more likely to require a gastrostomy and tracheostomy tube. These patients also had longer inpatient hospital stays and were more likely to be transferred to an acute inpatient rehabilitation facility.

#### Poster 444

##### Missed Brain Neoplasms on Computed Tomography in Patients With Cerebral Palsy: A Case Study.

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**Disclosures:** M. Hrubes, No Disclosures.

**Case Description:** We report on two patients with previously diagnosed cerebral palsy (CP), both premature infants, with novel brain neoplasms found incidentally on neuro-imaging. Patient A received computed tomography (CT) of the head to assess for mastoiditis in the setting of suppurative otitis media and a craniopharyngioma was noted. Retrospective analysis demonstrated the presence of the craniopharyngioma on previous imaging. Patient B was non-verbal, but was noted by her mother to be crying. Head CT was done to rule out ventriculoperitoneal shunt malfunction, which demonstrated an expansile left-sided acoustic neuroma. Retrospective analysis of 5 previous head CT scans demonstrated the presence of this neoplasm 7 years prior but the finding was not addressed in the radiology report.

**Setting:** Tertiary care pediatric hospital.

**Results or Clinical Course:** Both patients underwent resection.

**Discussion:** Brain tumors are the most common solid neoplasms in childhood and they are a rare cause of CP when diagnosed in infancy, subsequently causing motor disability. However, the incidence of brain tumors in children with CP where the tumor is seemingly unrelated to the motor disability has not been described in the literature. Children with CP tend to receive neuroimaging more frequently than the general population, but these frequent studies may actually contribute to missed findings as the reader is directed toward a specific question and fails to "see" the tumor. Close attention must be paid to ensure this patient population receives the same thorough consideration for their scans, just as children without a neurologic disability.

**Conclusions:** A previously diagnosed brain anatomy abnormality may obscure the identification of new abnormalities such as brain neoplasms.

#### Poster 445

##### Paraparesis Due to Acute Motor Axonal Neuropathy After Intravenous Vincristine Administration for Treatment of Acute Lymphocytic Leukemia: A Pediatric Case Report.

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**Disclosures:** M. Wheaton, No Disclosures.

**Case Description:** The patient underwent 35 days of induction

chemotherapy by COG-AALL 0932 protocol that included intravenous vincristine on day(s) 1, 8, 15 and 22 and intrathecal methotrexate on day(s) 8 and 29. On day 23 he developed rapidly progressive bilateral leg pain and weakness which led to hospital admission on day 27. By day 29 he could no longer ambulate. Magnetic resonance imaging (MRI) with gadolinium contrast was performed on day 40 which showed symmetric ventral rootlet enhancement from T12 through the sacral levels. A lumbar puncture on day 41 showed elevation in cerebral spinal fluid (CSF) protein.

**Program Description:** Five-year-old previously healthy boy with newly diagnosed standard risk acute lymphocytic leukemia (ALL).

**Setting:** Tertiary care pediatric hospital.

**Results or Clinical Course:** On the day of admission (day 42) his physical examination was notable for flaccid paralysis in the lower extremities, poor trunk and head control, distal upper extremity weakness and absent deep tendon reflexes. An electromyography study (EMG) performed on day 43 showed severely diminished muscle action potential amplitudes at the median and ulnar nerves and absent at the peroneal nerve. F waves were absent due to low amplitudes. On needle examination there was absent motor unit recruitment in the vastus medialis. He was then administered intravenous immunoglobulin (IVIG) 2 g/kg over 5 days with little clinical improvement. An anti-ganglioside antibody panel was negative. His motor examination and medical condition stabilized and he was enrolled in inpatient rehabilitation on day 53. He completed a 78-day acute rehabilitation course with modest improvement in trunk control and pinch strength but persistent flaccid lower extremity paralysis.

**Discussion:** There are numerous reports regarding neuropathy after intravenous vincristine administration. This neurotoxicity can result in symptoms ranging from mild to severe. In instances of severe impairment from axonal degeneration the electromyography pattern has been reported as a mixed motor and sensory axonal neuropathy. We believe this is the first case report of an isolated acute motor axonal neuropathy temporally related to vincristine administration.

**Conclusions:** Acute motor axonal neuropathy is a rare but serious potential adverse effect after chemotherapy with intravenous vincristine administration.

#### Poster 446

##### Unusual Complication of Intrathecal Baclofen Pump and Catheter Placement in a Child with Cerebral Palsy: A Case Report.

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**Disclosures:** N. Henry-Socha, No Disclosures.

**Case Description:** Patient: A 10-year-old boy with mixed tone quadriplegic cerebral palsy (CP).

**Setting:** Tertiary care pediatric rehabilitation hospital.

**Results or Clinical Course:** The patient presented due to concerns of a malfunctioning intraventricular baclofen pump with worsening tone despite increased intraventricular dose to nearly 2000 mcg/day, oral baclofen, and valium. He was found to have hydrocephalus for which a ventriculoperitoneal shunt was placed. In addition, the intraventricular baclofen catheter was removed and one placed intrathecally. The procedure was characterized by sig-

nificant difficulty threading the catheter into the intrathecal space requiring several attempts. Immediately post-operatively, tone was well controlled with a lower intrathecal baclofen (ITB) dose (800 mcg/day); however, he required further dose adjustments to 1800 mcg/day flex dosing in addition to oral tizanidine and valium with poor tone control, raising concerns for catheter malfunction. A dye study was terminated early due to difficulty aspirating from the catheter access port. A computed tomography (CT) myelogram revealed the catheter entering the spine epidurally at the lumbar level and threaded up to the thoracic spine in the epidural space. Revision of the ITB catheter was done via lumbar laminectomy to verify intrathecal placement. ITB dose was 650 mcg/day simple continuous at the time of discharge with much better tone control.

**Discussion:** Although there have been few cases reported of catheter tip migration into the epidural space, this is the first reported case, to our knowledge, of ITB complications from epidural placement of the intrathecal baclofen catheter in a child with CP. Epidural catheter tip is ineffective as baclofen does not cross the dura.

**Conclusions:** Epidural catheter placement must be considered in failure of ITB therapy in a patient with a newly replaced catheter with a history of difficult catheter placement.

#### Poster 447

##### Dysesthesias After Selective Dorsal Rhizotomy: Risk Factors, Presentation, and Treatment.

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**Disclosures:** N. Aldahondo, No Disclosures.

**Objective:** To determine if more microdissection or higher percentage of sensory rootlets sectioned during selective dorsal rhizotomy (SDR) results in increased likelihood of dysesthesias.

**Design:** Retrospective cohort.

**Setting:** Tertiary care center.

**Participants:** 99 children with cerebral palsy (CP) who underwent SDR between 2000 and 2010.

**Interventions:** None. Main Outcome Measures: Data were extracted including demographics, CP subtype, Gross Motor Functional Classification Scale (GMFCS) level, total number of rootlets assessed and percentage of rootlets cut, incidence and duration of dysesthesias, gabapentin use, and length of stay. Logistic regression model was used to analyze the collected data.

**Results:** Total incidence of dysesthesias was 41.4%: 15.0% for 2000-2005, and 59.3% for 2006-2010. There was no association of dysesthesia with gender, age, GMFCS level or CP subtype. The number of rootlets in the microdissection and the total percentage of rootlets cut were not associated with dysesthesias. Gabapentin was used in 97.1% of cases during 2006-2010. Symptoms resolved by the time of discharge in 75%. Dysesthesias did not impact length of stay.

**Conclusions:** The reported incidence of altered sensation after SDR varies from 2-40%, but no studies have addressed the occurrence of dysesthesias. In our retrospective chart review, the incidence of dysesthesias was 41.4% overall. An increased incidence was noted in the 2006-2010 time period, likely a result of our heightened awareness of this potential complication. There was no association with gender, age, GMFCS level or CP subtype, potentially because the children for whom SDR is the recommended treatment at our institution are relatively homogeneous. There was