Early Intervention with Intrathecal Baclofen (ITB) Therapy in a Child with Anoxic Brain Injury: A Case Report.

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SETTING

Pediatric acute inpatient rehabilitation.

PATIENT

A 4 year old male (13.7 kg) with an acute anoxic brain injury was admitted from an outside hospital to our acute inpatient pediatric rehabilitation program to optimize neurorecovery regarding agitation, autonomic dysregulation, increased dystonia and spasticity with significant posturing and dysfunction.

CASE DESCRIPTION

Upon admission to the inpatient rehabilitation unit, the patient was on multiple medications (total of 8) at high dosages with suboptimal management of his autonomic dysregulation and dystonia. The medications included: His medical condition was interfering with his progress in the comprehensive rehabilitation program . Seven weeks after his acute anoxic brain injury (1 week into his hospital stay at CIRU), an ITB bolus trial in our center was performed with good results. The ITB pump system was implanted at that time and within four weeks of ITB implantation with optimal titration of the ITB, measurable improvement was noted.

RESULTS

Upon discharge from the CIRU program at 6 weeks, all medications for agitation, autonomic dysregulation and dystonia/spasticity management were discontinued with the exception of the ITB therapy which was: 12mcg/hr basal rate, 150mcg bolus over 5 minutes every 3 hours for a total of 1528 mcg/day (flex mode). He was ambulating 150 feet with moderate assistance; he had a steppage gait with altered foot placement using a posterior rolling walker. He was awake, alert , happy, smiling, interacting with his environment, mouthing words, and nodding his head appropriately in response to questions. Some minimal dystonia affecting his upper extremities was still noted.

DISCUSSION

ITB therapy is clinically effective and safe in patients with acute brain injury.

CONCLUSION

Early intervention with ITB therapy using programmable pump is clinically effective in optimizing acute inpatient rehabilitation outcomes, function and minimizing polypharmacy in this pediatric patient with an acute anoxic brain injury.