

Neurosurgery Abstracts

Title: TETHERING OF THE SPINAL CORD IN SPINA BIFIDA CHILDREN: SURGICAL RESULTS WITH OVER 60 PATIENTS

Presenting Author: Greg Olvarria, Childhood Neurosurgery

Additional Authors:

- Jogi Pattisapu, Childhood Neurosurgery, Arnold Palmer Children's Hospital Spina Bifida Program
- Christopher Gegg, Childhood Neurosurgery, Arnold Palmer Children's Hospital Spina Bifida Program
- Keyne Johnson, Childhood Neurosurgery, Arnold Palmer Children's Hospital Spina Bifida Program

Background: We present almost 70 patients with tethered spinal cords and a diagnosis of spina bifida (some children tethered after other dysraphisms i.e. lipomyelomeningocele). Presenting symptoms included pain and voiding changes. Results with surgical untethering were excellent with over 90% relief of pain. Over 70% had improvement in voiding difficulties. This is a large series from a busy spina bifida center.

Method: Retrospective chart review of spina bifida patients presenting with tethering symptoms. Operations by three neurosurgeons in same group. All had preoperative MRI and voiding studies by urology. Pain was the most predominant symptom. 10% of patients had multiple operations. Surgeries performed with intraoperative monitoring and nerve root stimulation in nearly all patients.

Results: Over 90% of patients had relief of preoperative back and leg pain. Over 70% of patients had restoration of urologic functioning to preoperative levels. Less than 1% of patients had new or worsening neurological functioning postoperatively.

Conclusion: Surgical untethering of symptomatic spina bifida patients is a proven therapy. We report a large series with excellent outcomes after untethering.