

## FP64

**Neurological and urological outcomes of tethered cord syndrome surgery in children**

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**Introduction:** Tethered cord syndrome (TCS) causes significant neurological and urological deficits in children. This syndrome may be isolated or associated with other spinal malformations. The treatment is surgical release of the spinal cord. In this paper, we presented neurological and urological outcomes of children who underwent surgery for TCS.

**Methods:** Twenty-seven pediatric patients underwent surgical treatment with the diagnosis of TCS in our institution between 2008 and 2013. The mean age was 62 months (ranged between 8 and 126 months). Nineteen patients were male and 8 patients were female. Split cord malformation, previous myelomeningocele, dermal sinus tract and lipoma were associated malformations in 23 patients while 4 patients had isolated TCS. Preoperative somatosensorial evoked potentials (SSEPs) and urodynamic tests were performed in all patients. Twenty-four patients had neurological and 16 patients had urological dysfunctions (hyperreflexia, reflux and voiding dysfunction) in preoperative period.

**Results:** Surgical release of the spinal cord was performed in all patients. Urological improvement was observed in 8 (50%) patients while neurological improvement was achieved in 18 (75%) patients. The latency of tibial SSEPs was increased in 24 (88.9%) patients, unchanged in 3 patients in early period after the surgery. No complication or additional deficit had been occurred after surgery.

**Conclusion:** Children with TCS show significant neurological improvement after surgery. But urological improvement is less than neurological improvement. Postoperative electrophysiological assessment with SSEPs confirms neurological improvement in pediatric patients.