

## EFFECT OF DETETHERING ON URODYNAMIC FINDINGS IN PATIENTS WITH TETHERED CORD SYNDROME

### Hypothesis / aims of study

The effect of detethering on bladder function is a matter of debate in literature. The aim of this study is to investigate the efficacy of detethering for the surgical treatment of Tethered Cord Syndrome (TCS) on lower urinary tract functions with urodynamic findings.

### Study design, materials and methods

Between 2006 and 2010, a total of 27 cases (18 females, 9 males) a mean 8.48 years old (range 1 to 24) with TCS were evaluated. The definitive diagnosis of TCS was made using magnetic resonance imaging (MRI). Ten of 27 cases were completed voiding diary and all cases had undergone both preoperative and postoperative urodynamic evaluation. All cases were carried out by a single experienced neurosurgeon. Paired-Samples T Test was utilized to statistically compare the findings of voiding diary and urodynamics between preoperative and postoperative state.

### Results

A twelve of 27 cases were suffered from urge incontinence before detethering. Postoperatively urge incontinence was relieved in six of 12 cases. Overactive detrusor was preoperatively diagnosed in 21 of 27 cases and postoperatively decreased from 21 to 11 cases in urodynamic study. The findings of voiding diary were postoperatively improved but statistically non-significant. Postoperatively, the mean improvement on urodynamics parameters showed no statistically significant difference except cystometric capacity. The mean cystometric capacity was 88.7cc (20-219) before detethering and increased to 183,2 cc (22-539) after surgery. This increase was found statistically significant, p:0.04.

### Interpretation of results

A half of patients had urge incontinence that was common symptom in TCS in our study. Although the findings of voiding diary and urodynamics were improved by detethering, the results were not statistically significant except cystometric capacity. This significantly improvement of cystometric capacity could explain how patients feel more comfortable after detethering.

### Concluding message

We concluded that there is a strong correlation between detethering and cystometric capacity. Urodynamic study should be performed before and after surgery for assessment of surgical success.

### Disclosures

**Funding:** No **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** All procedure and evaluations include routine clinical approach in this study **Helsinki:** Yes **Informed Consent:** Yes