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# **Abstract Reproduction Form B-1**

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Title (type in	
CAPITAL LETTERS)	THE CHANGE OF NEUROGENIC BLADDER TYPE IN MYELOMENINGOCELE AND LIPOMYELOMENINGOCELE IN CHILDREN
Aims of study	

To investigate urodynamic change according to age in myelomeningocele (MMC) and lipomyelomeningocele (LMMC) children, we examined neurogenic bladder (NB) type retrospectively.

#### **Materials and Methods**

A total of 143 myelodysplastic patients (MMC:LMMC 66:77) in MMC clinic was included in this study. Video-Urodynamic study (UDS) was performed in all the patients after neurosurgery (NS). Preoperative UDS was done in LMMC patients less than 1 month before NS. NB type was classified as Normal (N), Normoreflexia with detrusor sphincter dyssynergia (DSD) (ND), Hyperreflexia (H), Hyperreflexia with DSD (HD), Areflexia (A) with high bladder leak point pressure (BLPP) (AH) and Areflexia with low BLPP (AL). The criteria of high BLPP was determined as higher than 40 cm H<sub>2</sub>0 of detrusor pressure at urine leak from the urethral meatus. Preoperative (pre-NS) NB type in LMMC was compared between the groups received NS before and after 1 year old, and postoperative (post-NS) NB type in MMC was compared between the groups received UDS before and after 1 year old.

### Results

A total of 77 LMMC patients received pre-NS UDS. Among them, thirty-eight patients (group A) received NS before 1 year old (mean 5.6 months) and 39 patients (group B) after 1 year old (mean 8.5 years, range 1-22 years). In group A, pre-NS UDS showed that N in 21 cases, H in 7, HD 8, ND in 1 and AL in 1. In group B, pre-NS UDS showed that HD in 16 cases, N in 10, H in 5, AH in 3, AL in 3 and ND in 2. Post-NS UDS showed various types from one pre-NS type in the group A but almost steady state from that in group B. A total of 66 MMC patients received post-NS UDS. Among them, twenty-four patients (group C) received first UDS before 1 year old (mean 5.6 months) and 42 patients (group D) received first UDS after 1 year old (mean 5.0 years, range 1-12 years). In group C, post-NS UDS showed HD in 10 cases, N in 4, AH in 3, AL in 5 and H in 2. In group D, post-NS UDS showed HD in 22 cases, AH in 8, H in 6 and AL in 6. In these two groups of MMC patients the follow-up UDS also showed an increasing tendency of HD or AH in the majority of the patients.

#### Conclusions

High risk neurogenic bladder type is increased in older patients with myelomeningocele or lipomyelomeningocele. Early neurosurgery and early urological care are needed in both groups.

#### References

Urology 1977; 10:354-62 J Urol 1981; 126:205-9 J Kor Med Sci 1993; 8:197-201