134

Shibata C[1], Kaga K[1], Fuse M[2], Uchiyama T[3], Sakakibara R[4], Yamanishi T[5]
1. *Continence Center / Dokkyo Medical University Hospital,* ***2.*** *Department of urology / Chiba University Hospital,* ***3.*** *Continence Center / Dokkyo University Hospital,* ***4.*** *Department of Neurology / Toho University, Sakura Medical Center,* ***5.*** *Continence Center / Dokkyo Medicak University*

THE RELATIONSHIP BETWEEN MAXIMUM URETHRAL CLOSURE PRESSURE AND LEAK POINT PRESSURE IN WOMEN WITH STRESS URINARY INCONTINENCE

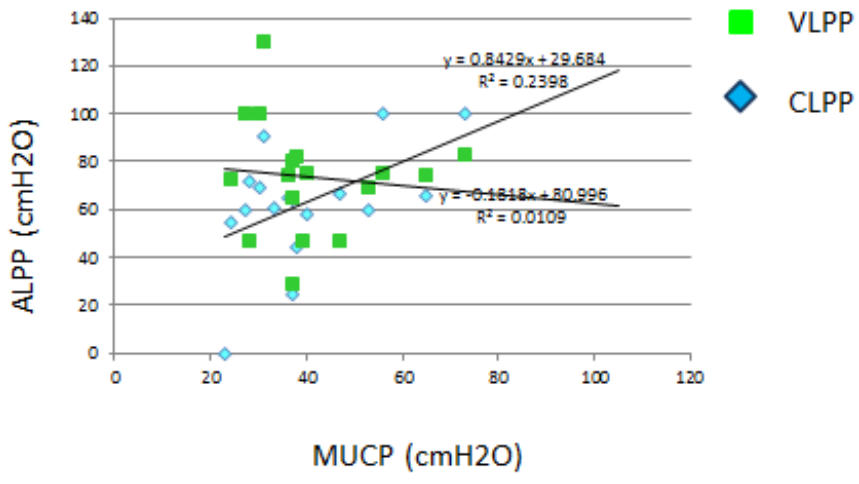
Hypothesis / aims of study
It is said that abdominal leak point pressure (ALPP) and urethral closure pressure (MUCP) measurement show variability because of the variations in measurement protocals.
This study is to investigate the relationship between maximum urethral closure pressure (MUCP) and abdominal leak point pressure (ALPP) by cough (CLPP) and valsalva (VLPP), and the relationship between these urodynamic findings and bladder neck opening and urethral hypermobility in an upright position during video-urodynamics in women with stress urinary incontinence (SUI).

Study design, materials and methods
We recruited 21 female patients who underwent video-urodynamics for evaluation to SUI from Jun 2012 to May 2014 retrospectively: mean age 64.1 years old (48- 84). We performed videourodynamics including urethral pressure profile in supine position and the measurement of ALPP (CLPP, VLPP) in an upright position, bladder neck opening and mobility in an upright position with 10 female patients. We set funnel-shaped bladder neck as bladder neck opening and Type2 (Blaivas and Olsson modified this classification system) as urethral hypermobility. We divided MUCP into 3 groups (MUCP< 20cmH20 or 30, 30cmH2O>MUCP<60cmH2O, >60cmH2O) and ALPP into 2 groups(<60cmH2O,<60cmH2O) from previous studies. Statistical tests were analysed by Peason's correlation coefficient test and Spearman's correlation coefficient by rank test ($p<0.05$).

Results
Mean MUCP was 42±19.7cmH2O, and mean VLPP was 62.3±24.1cmH2O, mean CLPP was 73.5±23.7cmH2O. There were no patients with MUCP< 20cmH2O. There was no significant correlation between VLPP and CLPP ($p=0.057$, $r=0.378$) 4 patients (80%) with MUCP< 30cmH2O group had ALPP <60cmH2O. The VLPP correlated with MUCP($r=0.49$) greater than CLPP($r=0.10$). Cystography in upright position demonstrated bladder neck opening in 7patients:1 patient (25%) with MUCP<30cmH2O), 6 patients (50%) with 30cmH2O>MUCP<60cmH2O), and no patient with MUCP>60cmH2O ($p=0.036$,$rs=0.696$). Urethral mobility more than 2cm by Valsalva was seen in 5 patients: 1 patient (25%) with MUCP<30cmH2O, 4 patients (33.3%) with 30cmH2O>MUCP<60cmH2O, and no patient with MUCP>60cmH2O($p=0.173$, $rs=0.455$)

Interpretation of results
There was no significant correlation between VLPP and CLPP and CLPP tended to be higher than VLPP in this study. The VLPP correlated with MUCP greater than CLPP. CLPP had wide variety than VLPP. Bladder neck opening in upright position was involved in MUCP.

Concluding message
We showed the relationships among video-urodynamics findings in women with SUI. It would suggest that VLPP and CLPP are caused by different factors and bladder neck opening in upright position is related to MUCP. And it might be useful to obtain more detail evaluation for SUI that performing the combination of MUCP and ALPP (VLPP, CLPP), bladder neck opening and urethral mobility.



References
1. The pathophysiolgy of stress urinary incontinence : A Htorical perspective. Geoffre W et al. Urol 2004:6(3)
2. The presence pf transurethral cystometry catheter and type of stress test affect the measurement of abdominal leak point pressure (ALPP) in women with stress uriary incontinence. Turker P et al. Neurourol Urodyn. 2010:19(4)

Disclosures
Funding: no **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Dokkyo Medical University Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes