

## **USEFULNESS OF TRANSPERINEAL ULTRASONOGRAPHY WITH PATIENTS IN UPRIGHT POSITION FOR VISUALIZATION OF LOWER URINARY TRACT – THE 2<sup>ND</sup> REPORT**

### **Aims of Study**

To assess a correspondence between genuine stress incontinence (GSI) and bladder neck funneling observed with the transperineal ultrasonography with patients in up-right position.

### **Methods**

In 28 female patients with cystocele or GSI the transperineal ultrasonography was performed using the 3.5MHz convex-typed ultrasound scanner (Aloka SSD 2000; Aloka Co. Tokyo, Japan). The examination was done with the patients in the upright position at rest, during straining and coughing and evaluated a correspondence between GSI and the funneling of bladder neck. Each examination was performed with patient's concepts.

### **Results**

The subjects were consisted of 5 cases without cystocele, 3 of the 2<sup>nd</sup> degree, 15 of the 3<sup>rd</sup> degree, and 5 of the 4<sup>th</sup> degree of that, and 18 of 28 were complicated with GSI in total. 1) a funneling of bladder neck at rest was observed in 11 cases (3 without cystocele, 2 of the 2<sup>nd</sup>, and 6 of the 3<sup>rd</sup> degree) who were complicated with the moderate or severe degree of GSI. 2) a funneling was clearly observed during or after provocation with coughing in 5 cases ( 4 of them were complicated with the moderate degree of GSI and continent one). 3) no funneling was observed in 3 cases who were complicated with the mild degree of GSI (< 5gr) and 9 continent cases. These data showed a sensitivity (0.94) and specificity (0.75) between GSI and bladder neck funneling observed with the transperineal ultrasonography in the upright position.

### **Conclusions**

The transperineal ultrasonography is a non-invasive and reliable method for evaluation of the lower urinary tract that allows a reproducible dynamic visualization. But it was reported that bladder neck funneling was less detectable by ultrasonography than the lateral chain urethrocytography (CCG).<sup>1,2</sup> To improve the diagnostic efficacy of transperineal ultrasonography the contrast medium might be one of the helpful technique,<sup>3</sup> but it would be somewhat intricate and expensive. We had been observed the high correspondence between the transperineal ultrasonography in upright position and CCG in several items including a mobile distance, the posterior urethrovesical angle (PVU angle), and the funneling of bladder neck. <sup>4</sup> In the present study the extremely high sensitivity (0.94) and specificity (0.75) between GSI and bladder neck funneling examined with the transperineal ultrasonography in the upright position was observed. This would suggest that visualization of bladder neck funneling was detectable sufficiently by the transperineal ultrasonography in the upright position and it would provide helpful informations for the treatment of GSI and cystocele.

### **References**

- 1) Abstracts ICS 2000, 365-66
  - 2) Schaer GN, et al. (1995) *Obstet Gynecol* 85;220-24.
  - 3) Schaer GN, et al. (1996) *Urology* 47; 452-53.
- Abstracts ICS 2001.