

BLADDER WALL THICKNESS AND ESTIMATED BLADDER WEIGHT IN WOMEN WITH STRESS INCONTINENCE IN COMPARISON TO CONTINENT WOMEN

Hypothesis / aims of study

Bladder wall thickness (BWT) and ultrasound-estimated bladder weight (UEBW) have been studied in incontinent women, especially those with detrusor overactivity.[1] Scarcely data is available on women with stress urinary incontinence (SUI). [2] The aim of the study is to compare BWT and UEBW in women with urodynamic stress incontinence to continent controls.

Study design, materials and methods

A cohort of adult women with SUI referred to a urogynecology unit in a university hospital were enrolled. The patients underwent urodynamic studies to confirm SUI and rule out any detrusor overactivity. A match group of women with no symptoms of lower urinary tract, recruited from general gynaecology clinic, were used as the control group. Automated Bladder Scan (BVM 6500, Verathon, USA) device was used to measure BWT and UEBW according to a standardised technique in both groups.[3] The BWT and UEBW measurements were compared between stress incontinent and continent women, P <.05 was considered statistically significant.

Results

A total of 166 women were enrolled, controls (n = 81) and SUI (n = 85). Women in control group were significantly younger, with lower parity and BMI. Regarding BWT and UEB, there was no statistical differences among the studied groups. (Table).

Interpretation of results

There is no significant difference in the BWT or UEBW in female patients with SUI in comparison to asymptomatic women.

Concluding message

The use of ultrasound for the measurement of BWT or UEBW is not of clinical use. Further large scale studies are warranted to confirm the findings.

Table: Characteristics of continent and stress incontinent women.

	Control N=81	SUI N=85	p-value
Age	37.5±11.1	48.2±7.5	<0.01
Parity	2.6±2.9	6.7±2.8	<0.01
BMI	26.8±6.5	32.6±5.2	<0.01
Urine Volume	249.8±65.7	273.4±70.8	0.14
Wall thickness	1.6±0.3	1.55±0.3	0.54
Surface area	205.9±40.4	220.7±40.2	0.12
Bladder weight	32.2±3.5	33.0±3.6	0.13
PVR	63.6±56.1	60.5±43.3	0.58

References

1. World J Urol (2013) 31:1093–1104
2. Urology (2012) 81: 66-70
3. The Scientific World Journal (2014): 1-5.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** College of Medicine IRB, King Saud University **Helsinki:** Yes **Informed Consent:** Yes