

## RELATIONSHIP OF THE SEVERITY OF URGENCY ACCORDING TO THE DEGREE OF STRESS URINARY INCONTINENCE.

### Hypothesis / aims of study

It is not uncommon that the patients with stress urinary incontinence (SUI) have concomitant urgency/or urge incontinence. Urge incontinence may be overdiagnosed in patients with SUI who misinterpret their fear of leaking (because of SUI) for urge incontinence. This study was performed to confirm whether urge incontinence is overexpressed in women with severe degree of SUI symptoms. The relationship between the grade of SUI and degree of urgency was analyzed.

### Study design, materials and methods

From 2000 to 2008, frequency volume chart, validated questionnaire, and urodynamic results of the patients with SUI were retrospectively analyzed. The patients were divided into three groups according to severity of urgency. Group I included the patients with pure SUI without urgency, group II with dry urgency (SUI+dryOAB) and group III with urge incontinence (SUI+wetOAB). Parameters such as age, disease history, symptoms, physical examination and urodynamic parameters were analyzed among these groups using one- way ANOVA.

### Results

A total of 540 patients were enrolled (Group I + II + III = 418+108+14). General characteristics of the patients such as age, height, body weight, BMI, presence of cystocele in each group are shown in the table. The maximal voided volume (MVV) was decreased in accordance with severity of urgency (Group I > II > III). The ratio of presence of detrusor overactivity (DOA) was increased in accordance with severity of urgency (Group I < II < III). The ratio of severe grade SUI (Stamey grade III) was increased in accordance with severity of urgency (Group I < II < III). However, multivariate analysis showed that Stamey grade was the only independent risk factor for urgency. There was no difference according to MVV, DOA, or other clinical parameters.

### Interpretation of results

Our results showed that the women with severe degree SUI often complains urge incontinence without evidence of DOA in urodynamic study. It is suggested that urge incontinence may be overdiagnosed in patients with SUI who misinterpret their fear of leaking (because of SUI) for urge incontinence.

### Concluding message

The severity of urgency in SUI patients is thought to be directly proportional to the grade of SUI symptoms.

**Table.** Descriptive statistics of the patients with SUI according to the severity of urgency.

	Total (n=540)	Pure SUI (n=418)	SUI+dryOAB (n=108)	SUI+wetOAB (n=14)	P value
Age (yr)	52.7±9.1	52.0	50.6	55.7	0.101
Weight (kg)	61.6±7.6	61.2	62.2	62.9	0.099
BMI	25.2±3.1	25.1	25.7	25.5	0.378
Parity	2.5±1.1	2.4	2.0	2.7	0.09
Sx duration (m)	61.1±63.2	59.5	55.0	68.3	0.402
Stamey sx grade I/II/III (%)	171/356/13 (31.7/65.9/2.4)	150/266/2 (35.9/63.6/0.5)	20/79/9 (18.5/73.1/8.3)	1/11/2 (7.1/78.6/14.3)	<b>0.000</b>
Q-tip (degree)	39.8±14.9	39.9	33.9	40.3	0.309
Qmax (mL/sec)	24.6±10.6	24.6	22.0	25.0	0.607
PVR (mL)	20.9±43.9	19.3	30.3	25.8	0.279
VLPP(cmH <sub>2</sub> O)	62.7±29.1	63.3	58.9	60.8	0.639
MVV (mL)	366.0±80.9	376.5	333.1	329.6	<b>0.000</b>
Pdetmax (cmH <sub>2</sub> O)	21.7±11.5	22.1	23.4	20.1	0.238
Presence of DOA	17 (3.1%)	8 (1.9%)	7 (6.5%)	2 (14.3%)	<b>0.000</b>

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Korea University Medical Center Anam Hospital IRB
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes