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Title: URODYNAMIC RELATIONSHIP OF OBESITY IN PATIENTS WITH STRESS URINARY INCONTINENCE

Aims of Study :

To identify the relationship of obesity and stress urinary incontinence, and of obesity and urodynamic parameters in patients of stress urinary incontinence in Korea.

Methods :

The study included 98 women who were clinically diagnosed as stress urinary incontinence and 102 women, as control group, who were taken total abdominal hysterectomy due to benign gynecologic diseases without stress urinary incontinence. We compared body mass index as a parameter of obesity between two groups. Body mass index(BMI) was defined as weight in kilograms divided by height in square meters. All patients of stress urinary incontinence(SUI) were taken urodynamic test and we obtained relationship between body mass index and urodynamic parameters by using Pearson correlation coefficient.

Results :

There was no difference in age between two groups(mean±SD, 52.4±8.3; 50.9±3.3, p=0.1). However the BMI was significantly higher in women with SUI than in the control group(24.3±2.7; 23.0±3.1, p<0.01), and number of vaginal delivery and parity were more common in women with SUI than in the control group. BMI was significantly higher in women with SUI than women in the control group only among younger group(under age of 52)(24.0±2.3; 22.3±2.1, p=0.001), while parity and number of vaginal delivery were higher in SUI group than control group among all age groups. There was no relationship between BMI and urodynamic parameters among the patients of SUI. Pearson correlation coefficient was as follows; for Residual urine, 0.502; for first sensation to void, 0.018; for bladder capacity, 0.329; for peak flow rate, -0.209; for functional urethral length, 0.269; for continence area, 0.262; for maximal urethral closing pressure, 0.229; for Valsalva leak point pressure, -0.100. There was no difference in age, parity, and BMI between overweight group and normal population among women with SUI(age; 53.3±7.8, 51.3±8.9, p=0.249; gravidity; 6.8±3.4, 6.6±2.9, p=0.792; parity; 3.4±1.4, 3.4±1.4, p=0.961; number of vaginal delivery; 3.4±1.4, 3.4±1.4, p=0.961).

Conclusions :

Body mass index was more closely related with stress urinary incontinence group than control group. This results suggest that obesity may be an important etiological factor of stress urinary incontinence. The obesity did not influence urodynamic parameters and there was no relationship between body mass index and urodynamic parameters.