

SNAPSHOT FOR CURRENT TREND OF URODYNAMIC PRACTICE IN KOREA: NATIONAL HEALTH INSURANCE DATA STUDY

Hypothesis / aims of study

The prevalence of lower urinary tract symptoms (LUTS) increases with age among Korean men and women. The aim of this study is to investigate the recent trends of functional voiding study including urodynamic study (UDS) and uroflowmetry in Korea.

Study design, materials and methods

Data were retrieved from the National Health Insurance Review & Assessment Service (HIRA) from 2010 to 2014 in Korea. We analyzed the number of cases and patients that had performed UDS and uroflowmetry per year; trend tests and regression tests were done to evaluate the trend of frequency rate of UDS and uroflowmetry. For covariates, year, sex, and the grade of hospital were considered. To explain the trend change in UDS, we also investigated data of surgical cases related with SUI.

Results

For the last 5 years, UDS was performed more frequently in small hospitals than in big hospitals (mean: n= 16,669 vs. 11,231), especially in women than in men (mean: n=48,216 vs. 7,585). The total number of UDS performance showed significant decrease throughout the years (from 59,208 to 53,816) with its steep decline in small hospitals and for female patients ($p < 0.001$). The performance of anti-incontinence surgery showed a sharp decline for the last 5 years ($p < 0.001$). These results showed that the positive correlation between the decrease in the number of UDS and surgical cases related with SUI was statistically significant. On the other hand, uroflowmetry was performed preferably more in big hospitals (mean: n= 211,728 vs. 111,973) and showed an annual increase of cases in all age groups, especially for male patients (mean: n=259,591 vs. 64,111).

Table 1. The number of urodynamic study cases

	Year				
	2010	2011	2012	2013	2014
Patient n (Treatment n)					
Hospital					
Big	23,120 (23,550)	22,041 (22,554)	21,871 (22,283)	21,749 (22,162)	21,343 (21,756)
Small	35,095 (35,658)	33,978 (34,496)	32,287 (32,698)	31,372 (31,787)	34,523 (32,059)
Sex					
Male	7,333 (7,546)	7,672 (7,971)	7,296 (7,501)	7,104 (7,323)	7,363 (7,582)
Female	50,394 (51,662)	47,915 (49,079)	46,470 (47,480)	45,587 (46,626)	45,122 (46,234)

Values are presented as number

Table 2. The number of Uroflowmetry

	Year				
	2010	2011	2012	2013	2014
Patient n (Treatment n)					
Hospital					
Big	134,170 (176,095)	143,591 (190,192)	162,221 (214,291)	173,366 (231,384)	182,409 (246,680)
Small	65,302 (85,631)	71,612 (94,859)	81,076 (112,265)	87,991 (125,449)	98,961 (141,661)
Sex					
Male	155,673 (208,901)	169,293 (228,897)	188,958 (260,196)	204,532 (285,865)	222,064 (314,094)
Female	41,196 (52,825)	43,063 (56,154)	50,637 (66,360)	53,199 (70,968)	55,475 (74,247)

Values are presented as number

Interpretation of results

Despite the fact that prevalence of LUTS is acknowledged to increase accordingly to age and that the number of uroflowmetry performed is annually increasing, the number of UDS cases are decreasing continuously.

Concluding message

Thus, it can be concluded that the role of urodynamic study may have been emphasized on female urinary incontinence. Further research and discussions are needed to enhance the role of urodynamic study in other voiding dysfunctions.

Disclosures

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