

IM Kang, K-S Lee, KM Kim\*, SE Chai

Department of Urology, Sungkyunkwan University School of Medicine, Seoul National University College of Medicine\*, Seoul, Korea

### URODYNAMIC FINDINGS IN DEMENTIA PATIENTS WITH VOIDING

**Aims of Study:** Dementia is a disease commonly found among the aged and, in many situations, accompanied by voiding dysfunction. Urinary incontinence has a serious social psychological effect not only on the patients but especially to the caregivers. We reviewed urodynamic data of dementia patients to determine etiology of voiding dysfunction.

**Methods:** We reviewed the charts of 54 (male: 29, female: 25) patients with dementia referred for urological evaluation of voiding symptoms and underwent urodynamic study. Mean age of patient was 70 years (range 55 to 84). The etiology of dementia were classified as vascular (37), Alzheimer (8), mixed type (4), and others (5). We asked caregivers of the dementia patients for voiding symptoms. All patients were underwent a structured interview including MMSE (mini-mental status examination) to test their cognitive ability.

**Results:** Of the 54 patients, 39 (72.2%) reported incontinence and of the 39 patients, 34 patients (87.1%) had urge incontinence. Forty-nine patients (91%) presented abnormal urodynamic findings.

	DA (n=8)		DH (n=39)				IC (n=2)	NR (n=5)
	DA	DA+SUI	DH	DH+IC	DH+SUI	DH+BOO		
Incontinence Yes (n=39)	6	1	25	2	2	2	0	1
No (n=15)	1	0	3	0	0	5	2	4

(DA: detrusor areflexia, DH: detrusor hyperreflexia, SUI: stress urinary incontinence, IC: impaired contractility, BOO: bladder outlet obstruction, NR: normal)

Thirty-nine patients (79.6%) had detrusor hyperreflexia, 8 patients (16.3%) had detrusor areflexia, and 2 patients (3.7%) had impaired contractility. Of the patients with detrusor hyperreflexia, 7 had bladder outlet obstruction, 2 had impaired contractility, and 2 had stress urinary incontinence. The stress urinary incontinence were noted only in female patients whereas bladder outlet obstruction only in male patients. The MMSE score were lower in incontinent patients than that in continence patients.

**Conclusions:** Of the dementia patient, the abnormal findings of urodynamic study were 91%. Although the detrusor hyperreflexia was the most common finding, there were also another abnormal findings. Because the etiology of voiding dysfunction of dementia patients may be mixed, we should consider these complex etiologies in the treatment of voiding dysfunction of dementia patients.