

## PREDICTORS OF RESPONSE TO FESOTERODINE IN PATIENTS WITH AN OVERACTIVE BLADDER

### Hypothesis / aims of study

An analysis has been conducted of the predictors of the fesoterodine treatment response for female patients with overactive bladder (OAB).

### Study design, materials and methods

Eighty-seven women diagnosed with OAB and who had undergone 12 weeks of treatment with fesoterodine (4mg/day) were involved. Prior to treatment, the patients were evaluated through their medical history, physical examinations, urine analysis, urine cultures, voiding diaries and urodynamic studies. The voiding diaries and personal interviews concerning urinary symptoms were analyzed 12 weeks after treatment.

### Results

Seventy-nine (82.3%) women experienced improvement of OAB symptoms (Improvement group), and for seventeen (17.7%) women the symptoms remained unchanged or worsened (Persistence group) after treatment. In the urodynamic studies, detrusor overactivity was noted in 37 (46.8%) patients of the improvement group and 3 (17.6%) of the persistence group. The number of patients who showed detrusor overactivity in urodynamic studies before the treatment was significantly larger in the improvement group. Maximum detrusor pressure and detrusor pressure at maximum flow were higher in the persistence group but not to statistically significant levels. In pre-treatment voiding diaries, the number of urgencies per day was significantly larger in the improvement group.

Table 1. Analysis of clinical features in both groups

	Improvement (n=79 )	Persistence (n=17 )	P value
Age (years)	51.4±12.1	53.3±11.2	> 0.05
Parity (times)	2.6±1.1	2.7±1.2	> 0.05
BMI (kg/m <sup>2</sup> )	23.9±2.9	24.1±3.1	> 0.05
Menopause (n)	42 (58.2%)	12 (70.6)	> 0.05
Duration of symptoms (years)	5.2±5.1	5.3±5.2	> 0.05

Table 2. Pre-treatment voiding diary for both groups

	Improvement (n=79 )	Persistence (n=17 )	P value
Number of patients (n)	79 (82.3%)	17 (17.7%)	
Frequency (/day)	11.3±2.9	11.0±3.0	> 0.05
Nocturia (/night)	2.3±1.5	1.9±1.2	> 0.05
Urgency numbers/day	5.6±3.4	3.3±3.0	< 0.05
UUI numbers/day	3.1±2.8	2.9±2.9	> 0.05
FBC (mL)	298.6±82.9	354.3±148.6	> 0.05

Table 3. Pre-treatment urodynamic findings for both groups

	Improvement (n=79 )	Persistence (n=17 )	P value
Detrusor overactivity (n)	37 (46.8%)	3 (17.6%)	< 0.05
Free Qmax (mL/sec)	22.8±10.5	20.9±8.8	> 0.05
Pdet.max (cm· H <sub>2</sub> O)	42.7±21.2	47.1±21.5	> 0.05

### Interpretation of results

The efficacy of fesoterodine treatment for female OAB problems was found to be associated with the frequency of urgency and detrusor overactivity.

### Concluding message

Both voiding diaries and urgency/detrusor symptom records may aid in predicting the efficacy of fesoterodine treatment.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** PNUH IRB (Pusan National University Hospital Institutional Review Board) **Helsinki:** Yes **Informed Consent:** Yes