

## THE EFFICACY OF TOLTERODINE AND TAMSULOSIN COMBINATION THERAPY IN FEMALE OAB PATIENTS

### Hypothesis / aims of study

Although, first-line drug in medical treatment of female OAB is anti-muscarinic agents such as tolterodine, addition of tamsulosin in empirical base is also used [1]. So, we compared the efficacy of tolterodine (2mg) and tamsulosin (0.2mg) combination therapy with tolterodine alone.

### Study design, materials and methods

Between January 2010 and December 2010, a study was carried out on 80 female patients with newly diagnosed OAB and analysed medical records retrospectively. Before and after 6 weeks of treatment, all patients were evaluated with 3 days of voiding diary, uroflowmetry (UFM) including postvoiding residual urine volume (PVR) and QOL index in IPSS. The treatment efficacy was measured with mean number of micturition, nocturia and urgency, mean voided volume, maximal flow rate (Qmax), PVR and QOL index. Five patients who stopped medication due to side effect (two with dry mouth, three with orthostatic hypotension) were excluded in this study.

### Results

There were no statistical differences in evaluation factors between monotherapy group (Group I, n=38) and combination therapy group (Group II, n=37) before treatment. After 6 weeks of treatment, mean number of micturition and urgency, mean voided volume, and QOL index were improved in both groups. But there were no statistical differences in improved factors after treatment between the two groups. The Qmax in Group II showed only significant increase when compared to pretreatment Qmax in Group II and also compared to Group I (Table 1).

### Interpretation of results

Our results can not show explicitly higher efficacy of combination treatment using anticholinergics plus alpha-blockers comparing to standard therapy by anticholinergics alone. Further randomised placebo-controlled studies are needed for final evaluation of the role of alpha-blockers in the treatment of OAB.

### Concluding message

Tamsulosin, the antagonist of  $\alpha$ 1a and  $\alpha$ 1d receptor, is thought to increase storage function of bladder and also used in female OAB patients as empirical treatment. But, this study shows no comparative advantages in combination treatment with tamsulosin when compared to tolterodine monotherapy except maximal flow rate. Further research including placebo group and urodynamic study may provide more accurate result about the efficacy of tamsulosin in female OAB patients.

**Table 1. The comparison of treatment efficacy variables between two groups**

Treatment efficacy variables	Tolterodine (Group I, n=38)			Tolterodine + Tamsulosin (Group II, n=37)		
	Baseline	After Tx.	<i>p</i> value	Baseline	After Tx.	<i>p</i> value
No. of Micturition/day	11.2±1.3	7.1±1.4(37%)	<0.05	10.9±1.4	6.8±1.3(38%)	<0.05
No. of Nocturia/day	2.3±1.2	1.1±1.0(52%)	<0.05	2.4±0.9	1.2±1.1(50%)	<0.05
No. of Urgency/day	4.9±3.2	2.2±1.8(55%)	<0.05	4.4±2.8	2.0±1.9(54%)	<0.05
Mean voided volume(ml)	137.3±35.6	151.3±32.1(10%)	<0.05	143.6±45.1	160.3±26.4(12%)	<0.05
Qmax(ml/sec)	17.3±5.7	17.8±3.5(3%)	>0.05	18.5±6.4	23.4±3.0(26%)*	<0.05
PVR(ml)	18.6±7.5	18.9±6.3(1%)	>0.05	17.9±9.2	18.5±7.1(3%)	>0.05
QOL Index	5.1±0.5	3.2±0.7(37%)	<0.05	4.9±0.4	3.1±0.6(36%)	<0.05

\* *p*<0.05 in group II when compared to group I in Qmax after treatment

References

1. Neurourol Urodyn. 2009;28(3):251-6.

<b>Specify source of funding or grant</b>	<b>None</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>Kangbuk Samsung Hospital Institutional Review Board</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>