COMPARISON OF THERAPEUTIC EFFECT OF SOLIFENACIN AND MIRABEGRON FOR OVERACTIVE BLADDER

Hypothesis / aims of study
Anti-muscarinic agents were the first choice of pharmacotherapy for the treatment of overactive bladder (OAB). However, the appearance of Mirabegron, selective β3-adrenoceptor agonist, is widespread the choice of pharmacotherapy of overactive bladder. Although the corresponding effect observed either drug, for their proper use are not yet known. The aim of this study was the evaluation of efficacy of Mirabegron 50mg compared to Solifenacin 5mg in the treatment of patients suffering from overactive bladder symptoms.

Study design, materials and methods
Study has been conducted on postmenopausal women who visited our clinic complaining of urinary frequency, and urge incontinence. Patients were received once daily Solifenacin 5mg for 4 weeks. After evaluation of the therapeutic effect of Solifenacin, then they were received once daily Mirabegron 50mg for next 4 weeks. 3-days frequency volume chart was assessed before and after each treatment. The severity of OAB symptoms and the bother specific to each OAB symptom were assessed using 2 questionnaires the OAB symptom score (OABSS) and IPSS score.

Results
Total 10 patients were enrolled. All patient had urgency and 3 patient had urgency incontinence. After 4 week of Solifenacin treatment, the total of OABSS score demonstrated significant improvement (P=0.01) (fig.1) and total of IPSS score also demonstrated improvement (fig.2) After changing drug from Solifenacin to Mirabegron, there were no further improvement in both symptom scores, did not even exacerbation.

All patients had good compliance with mirabegron during the study period. But, three patient complained severe dry mouth with Solifenacin, so medication could not be continued further.

Interpretation of results
In this study, Mirabegron improved the symptoms of patients with OAB. In comparison with Solifenacin, the effect is about the same, there was no difference in the effect on each OAB symptom. However, for the cases which could not be continued at the adverse effects of Solifenacin, Mirabegron can be used safely.

Concluding message
This study suggests that Mirabegron could be effective the treatment for OAB patients who have experienced adverse events of anti-muscarinic agents.
Fig.2

Disclosures

**Funding:** no  
**Clinical Trial:** Yes  
**Public Registry:** No  
**RCT:** No  
**Subjects:** HUMAN  
**Ethics not Req'd:** it was carried out in the range for normal examination.  
**Helsinki:** Yes  
**Informed Consent:** Yes