COMPARISON OF THE CURATIVE EFFECT FOR OVERACTIVE BLADDER OF SOLIFENACIN AND MIRABEGRON

Hypothesis / aims of study
Anti-muscarinic agents were the first choice of pharmacotherapy for the treatment of overactive bladder. However, the appearance of Mirabegron, selective β3-adrenoceptor agonist, is widespread the choice of pharmacotherapy of overactive bladder. So Mirabegron shows an effect in particular for the patient who cannot continue treatment of anti-muscarinic agent due to adverse event. Although the corresponding effect observed either drug, for their appropriately 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
20 women who visited our clinic complaining of urinary frequency, and urge incontinence were enrolled in this study. All patients were received once daily Solifenacin 5mg for 4 weeks. After evaluation of the therapeutic effect of Solifenacin, then they were received once daily Migabegron 50 mg next 8 weeks. 3-days frequency volume chart was assessed every 2 weeks before and during this study. 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
All patients were complete the study. All patients had urgency and 7 patients had urgency incontinence. After 4 week of Solifenacin treatment, the total of OABSS score demonstrated significant improvement (fig.1) and total of IPSS score also demonstrated improvement. (fig.2) FVCs showed significant improvement in urinary frequency and voiding volume at daytime and night. (fig.3) After switching to Mirabegron, those scores and symptom were maintained good state. Furthermore, the score of OABSS question-4 (frequency of urge incontinence) were improved compared to those of the Solifenacin treatment. All patients had good compliance with Mirabegron during the study period. But, four patient complained severe dry mouth with Solifenacin, so medication could not be continued further.

Interpretation of results
In this study Mirabegron and Solifenacin improved the symptoms of patients with OAB. Each drug decrease voiding frequency and increase voiding volume and improved the symptom scores. In comparison with Solifenacin, the effect of Mirabegron is almost the same, but The possibility that Mirabegron was more effective than Solifenacin for patients who have urge incontinence was suggested. Moreover, Mirabegron can be used safely for the cases which cannot be continued at the adverse effects of Solifenacin.

Concluding message
This study suggests that Mirabegron could be effective the treatment for OAB patients especially who have urge incontinence or experience unfavourable compliance to anti-muscarinic agents.

Score of IPSS questionnaire

Fig.1
Score of OABSS questionnaire

Fig. 2

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**Fig. 3**

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**Disclosures**

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