



#148 5 Years' Experience of High Adherence Rate of Mirabegron and Its Combined Pharmacotherapies in Patients with Overactive Bladder in Japan

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Introduction

Background:

Short- and long-term adherence and persistence of anti-cholinergic drug therapy for overactive bladder (OAB) is suboptimal [1]. A study of UK patients found that only 28-58%, and 14-35% of those prescribed OAB medications (anti-cholinergic) continued treatment beyond 3 months, and 12 months, respectively [2]. Mirabegron (MI) is the first β_3 -adrenoceptor agonist to enter clinical practice, and has been approved for the treatment of symptoms of OAB in countries including Japan, the USA, Europe, Canada, and Australia. We have presented a paper entitled "3 years' Experience of High Adherence Rate of Mirabegron in Patients with Overactive Bladder in Japan: comparison between gender, and between single and combined pharmacotherapies." in ICS2015 [3].

From 2011 to 2014, 835 Japanese patients with OAB were treated with MI in a private Urology out-patient office in Yamanashi Prefecture, Japan, and Adherence rates were 50.0 %, 42.6 %, 35.6 %, and 33.0 %, at 7months, 1year, 2years, and 3 years, respectively.

In MI single group (SIN, N=411), adherence rates were 23.9%, 19.6%, 19.0%, at 1 Year, 2 Years, and 3 years, respectively.

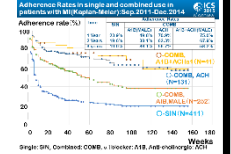
In MI+alpha1-blocker (A1B) group (N=252, Male), adherence rates were 49.8%, 38.1%, 38.1%, at 1 Year, 2 Years, and 3 years, respectively.

In MI+anti-cholinergic (ACH) group (N=131), adherence rates were 70.9%, 62.3%, 56.7%, at 1 Year, 2 Years, and 3 years, respectively.

In MI+A1B+ACH(MALE) group (N=41), adherence rates were 75.0%, 67.9%, 58.2%, at 1 Year, 2 Years, and 3 years, respectively.

The Aims:

- 1) To analyse the adherence rate of MI OAB for 5 years in Japanese patients with OAB,
- 2) To compare the persistence rate between male and female,
- 3) To compare single and combined pharmacotherapies.



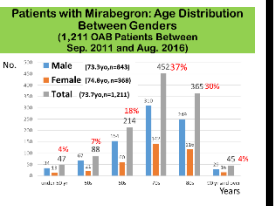
Methods

Between September 2011 and December 2016, 1,211 Japanese patients with OAB were treated with MI in a private Urology out-patient clinic in Yamanashi Prefecture, Japan. Retrospective chart review was performed including several parameters (IPSS, OABSS [4]). Data were analysed using Student's t-tests, or Kaplan-Meier estimate and Cox-Mantel test.

Characteristics of patients and pharmacotherapies

1)Age: Among 1211 patients with OAB, 70% (843) and 30% (368) were male and female, respectively. Average age were 73.7, 73.3, and 74.8 years old in total, male and female patients, respectively. Eighty-two % (989) were over 65 years old, and 18% (222) were under 65 years of age.

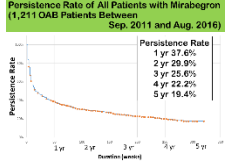
Among age group of decades, 70 to 80 years were highest incidence in total, male and female patients, followed by 80 to 90 years old, then 60 to 70 years old.



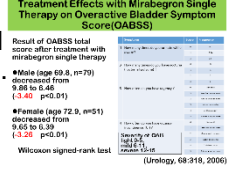
2)Types of pharmacotherapies: Solo-administration of MI were 41% (346), and 60% (222) in male and female patients groups, respectively. Patients administered with combination of MI and alpha1-blocker were 45% (377) in male group, and patients administered with combination of MI and anti-cholinergic were 40% (146) in female group.

Results

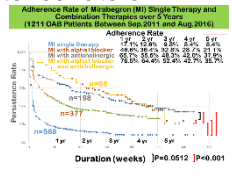
1) Persistence rate of MI: Overall rate of persistence of MI were 37.6%, 29.9%, 25.6%, 22.2%, and 19.4%, at 12months, 24months, 36months, 48months, and 60months, respectively. Rate of persistence of MI in male were 39.3%, 30.4%, 26.1%, 22.9% and 16.9%, at 12months, 24months, 36months, 48months, and 60months, respectively. Rate of persistence of MI in female were 33.7%, 28.9%, 24.7%, 20.8% and 19.2%, at 12months, 24months, 36months, 48months, and 60months, respectively.



2) Treatment Effects with Mirabegron Single Therapy on Overactive Bladder Symptom Score(OABSS)[4]: Result of OABSS total score after treatment with mirabegron single therapy Male (age 69.8, n=79) decreased from 9.86 to 6.46 (-3.40 p<0.01). Female (age 72.9, n=51) decreased from 9.65 to 6.39 (-3.26 p<0.01). (Wilcoxon signed-rank test.)



3) Persistence rate and types of pharmacotherapies (single and combinations): Persistence rate of MI-single were 17.1%, 12.6%, 9.8%, 8.4%, and 8.4% at 12months, 24months, 36months, 48months, and 60months, respectively. Persistence rate of MI with alpha-1 blocker in male patients were 46.6%, 36.4%, 32.8%, 28.7%, and 21.1% at 12months, 24months, 36months, 48months, and 60months, respectively. Persistence rate of MI with anti-cholinergic in female patients were 65.7%, 55.5%, 48.3%, 42.0%, and 37.9% at 12months, 24months, 36months, 48months, and 60months, respectively. Persistence rate of MI with alpha-1 blocker and anti-cholinergic were 70.9%, 62.3%, and 56.7% at 12months, 24months, and 36months, respectively. There are significant difference (p<0.001) between any combinations except for MI-single and MI with alpha-1 blocker.



Conclusions

This is the 1st research showing long-term, 5 years' adherence rate of MI, which is similar to previous our 3 years' adherence rate of MI [3]. The reason why the adherence rates of MI single use are lower than those of MI combined use in both gender may be higher incidence of mild cases in MI single use. The incidence of serious/refractory cases may be higher in MI combined use group than MI single use group. Combination therapy using both MI and anti-cholinergic has been shown to be not only effective, but tolerable[5,6]. The Japanese Clinical Guideline for OAB published in 2015 also stated that combination of MI and anti-cholinergic is recommended as grade B. Triple combination of MI, alpha1-blocker, and anti-cholinergic might be a good option for male OAB patients.

References

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