# Poster: 155 MIRABEGRON IN TREATMENT OF NEUROLOGICAL OVERACTIVE BLADDER IN MULTIPLE SCLEROSIS PATIENTS. LONG TERMS RESULTS

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## Introduction and aim of the study

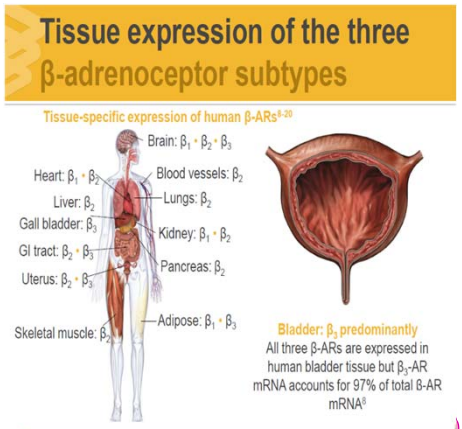
Mirabegron is a selective β3-adrenoceptor agonist; the β3 subtype has been identified in bladder smooth muscle tissue (detrusor muscle). results in significantly greater reduction in incontinence episodes, urgency episodes and micturition frequency/24 hours than placebo, with no difference in the rate of common adverse events confirmed in clinical trials in patients with OAB.

In this study we evaluate the potential of mirabegron, a selective β3-adrenoceptor agonist, for treatment of neurological overactive bladder (OAB)

## Materials and Methods

A multi-centre Open Study to Evaluate the Efficacy and Safety of Mirabegron in Neurogenic OAB Subjects affected by multiple sclerosis (MS) . The patients (n=76) were enrolled into 2-week run-in period followed by 12 months a treatment period, when received mirabegron 50mg daily.

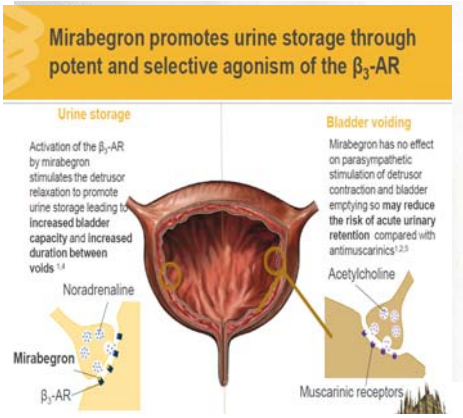
We evaluated 76 Patients (22 Man and 54 woman ≥18 years of age) that were enrolled in the study. All patients had diagnosis of SM > of 3 years. Primary endpoint was change from baseline to end-of-treatment in mean number of micturition episodes per 24 hr. Secondary endpoints included changes in mean volume voided per micturition; mean number of urinary incontinence, urgency urinary incontinence, and urgency episodes per 24hr; severity of urgency; . Safety parameters included adverse events, and post-void residual volume. EDSS (expanded disability status scale) medium 3




## Results

Mirabegron 50 mg daily resulted in a statistically significant improvement in mean change from baseline to end-of-treatment in the primary endpoint of micturition frequency (3.1 micturitions/24 hr). Mirabegron had a statistically significant effect versus baseline for secondary endpoints, statistically significant reductions from baseline to end-of-treatment in urgency episodes (2.3) and a statistically significant increase in mean volume voided per micturition (50 ml). Mirabegron also resulted significant improvements in incontinence episodes (2.0 episodes/24 hr). The percentage of patients classified as "responders" at end-of-treatment was 55 %. Patients with no results was 15 (20%); 12 % partial results.No change in EDSS

There were no serious adverse , only 1 patient suspended therapy for nausea, hypertension (5.3%), nasopharyngitis (3.%) and UTI (2%),




## Discussion

The effectiveness of mirabegron was reported by 70% of MS patients and was demonstrated by the disappearance of urgency and reductions of frequency .

The majority of patients revealed a preference for this therapy and has expressed the desire to continue this drug.

## Conclusions

The effectiveness of the treatment is demonstrated by the disappearance of urgency or reductions of micturition frequency. Mirabegron was efficacious and well tolerated in neurological patients with OAB symptoms and heralds the first of a new class of oral pharmacological therapy for OAB for more than 30 years. with low side effect. One SR showed that mirabegron is similarly efficacious as most antimuscarinics in reducing UUI episodes

## References

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