

## ANTIMUSCARINIC AGENT TREATMENT AFFECTING PATIENT-REPORTED OUTCOMES IN OVERACTIVE BLADDER SYNDROME-ASSOCIATED DEPRESSION

### Hypothesis / aims of study

Low quality of life due to overactive bladder (OAB) has influence on psychiatric problems such as depressive symptoms, stress, and anxiety. We investigated improvements in OAB symptoms and depressive symptoms after solifenacin in OAB female patients with or without depressive symptoms.

### Study design, materials and methods

We performed a prospective study in a single institution, targeting patients showing OAB among the outpatients of the department of urology. Based on the Beck depression inventory (BDI) questionnaire, test subjects were divided into group 1, without depression symptoms (0-9 points), and group 2, with depression symptoms (10 or more points). OABSS (Overactive Bladder Symptom Score), diagnosed by evaluating OAB symptoms; International Prostate Symptom Scale score/Quality of Life (IPSS/QoL), which evaluates the severity of lower urinary tract symptom; patient perception of bladder condition (PPBC); and BDI were examined. In Groups 1 and 2, symptom improvement status and variation after treatment with solifenacin for 12 weeks were comparatively analyzed. Patients completed these questionnaires at the first visit (Visit 1-V1), week 4 (Visit 2-V2), and week 12 (Visit 3-V3) to evaluate symptom improvement.

### Results

A total of 72 patients participated in this clinical test, and a total of 52 patients completed the research process. While there were no significant differences in basic characteristics or average measurements of the patients in Groups 1 and 2, results for OABSS-Total, OABSS Q3, IPSS-Total, IPSS storage, and BDI showed higher values in the depressive symptom group. In Group 2, the OABSS, OAB Q3, IPSS-Total, IPSS-Storage, and BDI showed significant changes when comparing the first visit (V1) with V3, which indicates that solifenacin was effective at treating OAB symptoms and depressive symptoms. Solifenacin produced a statistically significant decrease in BDI score from baseline to the fourth and 12<sup>th</sup> weeks in Group 2 (Group 1 vs. Group 2 (4<sup>th</sup>, 12<sup>th</sup> week) 1.43±0.74 vs. -2.68±4.05, p<0.001; 0.10±3.37 vs. -5.52±5.82, p<0.001). Symptom scores of OABSS, OAB No.3, IPSS-T, IPSS-V, IPSS-S, PPBS, and QoL were decreased during the fourth and 12<sup>th</sup> weeks, but comparison of groups showed no statistically significant differences.

### Interpretation of results

Solifenacin was effective at treating OAB symptoms and depressive symptoms.

### Concluding message

Depending on the severity of symptoms, OAB can decrease quality of life and be associated with depressive symptoms. In OAB patients with depressive symptoms, solifenacin could help improve quality of life and depressive symptoms at the same time.

### References

1. Johnson TV, Abbasi A, Ehrlich SS, Kleris RS, Chirumamilla SL, Schoenberg ED, et al. Major depression drives severity of American Urological Association Symptom Index. *Urology* 2010;76:317-20.
2. Irwin DE, Milsom I, Kopp Z, Abrams P, Cardozo L. Impact of overactive bladder symptoms on employment, social interactions and emotional well-being in six European countries. *BJU Int.* 2006 ;97:96-100.
3. Anger JT, Nissim HA, Le TX, Smith AL, Lee U, Sarkisian C, et al. Women's experience with severe overactive bladder symptoms and treatment: Insight revealed from patient focus groups. *Neurourol Urodyn.* 2011;30:1295-9

### Disclosures

**Funding:** Astellas Korea **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Hanyang university Guri hospital Institutional Review Board. 2013-01-046 **Helsinki:** Yes **Informed Consent:** Yes