

SOLIFENACIN OBJECTIVELY DECREASES URINARY URGE SENSATION IN WOMEN WITH OAB

Hypothesis / aims of study

The effect of anticholinergic therapy on objective measures of urinary urgency has not been well described. The aim of this study was to determine whether overactive bladder (OAB) treatment with solifenacin was associated with a decrease in recorded urinary sensation during urodynamic testing.

Study design, materials and methods

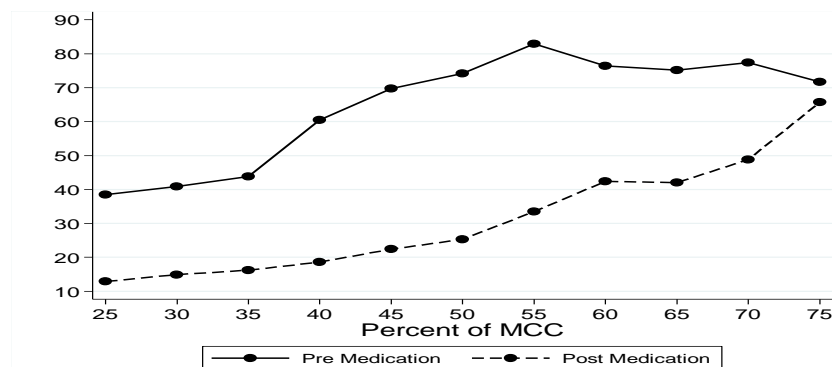
Ten consenting women with primary symptoms of OAB underwent filling cystometry with contemporaneous, continuous recording of urinary sensation prior to and one month after treatment with solifenacin 10 mg daily. Patients indicated their perception of urinary sensation by moving a lever on a scale that ranged between 'no urge to void' and 'the most extreme urge to void that I can imagine'. Parametric and non-parametric statistical approaches in STATA 10.0 were used to compare changes in urinary urge sensation using the area under the curves (AUCs). Sensation measures were corrected for maximum cystometric capacity (MCC). In addition, in order to provide data supporting test-retest reliability of our instrument, 5 consenting women without OAB also underwent the same testing at two time points, without receiving interval treatment.

Results

Most participants were postmenopausal (66%) and had a mean age 61 (range 45-79) years and median parity 4. In the OAB treatment group (n=10), MCC increased from 329±168mL to 464±123mL on solifenacin (p=0.017), while the area under the urinary sensation-volume curve decreased significantly (p<0.01; see Figure).

In the non-OAB group who did not receive treatment (n=5), there was no change in the urinary sensation-volume curve.

Figure: Mean urinary sensation ratings by %MCC at baseline (upper curve) and after 1 month of solifenacin 10mg daily (lower curve) in ten patients. The area under the curves were significantly different (p<0.01).



Interpretation of results

In our study, solifenacin decreased urinary sensation during bladder filling in women with OAB. We provide objective evidence to support prior subjective reports of improvement in urinary urgency with use of solifenacin for OAB. If clinical correlations are confirmed by future study, this finding may allow continuous cystometric urinary sensation to be used as an objective measure of urgency in the planning and evaluation of OAB treatments.

Concluding message

Continuous measurement of urinary sensation during filling cystometry provided evidence to support a beneficial effect of solifenacin on bladder sensation in women with OAB.

Specify source of funding or grant	Astellas Inc.
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Loyola University Medical Center Institutional Review Board
Was the Declaration of Helsinki followed?	Yes

Was informed consent obtained from the patients?

Yes
