

## ANTIMUSCARINICS IMPROVE BLADDER EMPTYING IN MALES WITH BOO AND OVERACTIVE BLADDER SYMPTOMS EVEN WITH SIMULATED INCREASED OUTFLOW RESISTANCE

### Hypothesis / aims of study

The addition of an antimuscarinic agent to the treatment of a patient with BOO and concomitant OAB symptoms seems to offer a clinical amelioration and an improvement in QoL. The aim of this work is to evaluate the effect of antimuscarinic drugs (solifenacin) on Qmax and Post void residual and to evaluate efficient bladder emptying against progressive rising of outflow resistance.

### Study design, materials and methods

Ten adult male patients > 50 years with enlarged prostate suffering from moderate to severe irritative LUTS that is not significantly relieved by alpha-blockers were included in this study. We excluded patients with Qmax<10 ml/sec and post-void residual (PVR) >100 ml. The patients underwent uroflowmetry followed by estimation of PVR before and after receiving Solifenacin 5 mg once daily for 3 weeks.

The patients were also asked to void without straining through a condom catheter fitted on the penis and the urine was guided into a vertical glass tube of 20 cm height placed at the level of symphysis pubis into a uroflowmeter. PVR estimation was measured after each uroflowmetry testing. This test was done once before and after receiving Solifenacin. Results of both pre and post antimuscarinic drug intake regarding uroflowmetry and PVR were compared together.

### Results

Qmax increased from a mean of 18.1 ml/sec to 19.6 ml/sec after receiving Solifenacin for three weeks ( $p=0,057$ ). None of the patients had any increase in PVR after receiving Solifenacin and those with PVR ranging between 50 and 95 ml had a mean decrease of 30 ml. Voided volume also increased from a mean of 187.2 to 300.1 ml. When patients were tested to void against 20 cm height outflow resistance, Qmax was shown to improve from a mean of 14.2 ml/sec to 16,7 ml/sec ( $p=0,041$ ) and PVR decreased from a mean of 87ml to 43.5 ml( $p=0,003$ ) after receiving Solifenacin

### Interpretation of results

Using Antimuscarinic in elderly males with BOO and symptoms of overactive bladder allows more spacing between bladder contractions. This allows increase of voided volume with slightly higher Qmax and lower PVR.

### Concluding message

Elderly males with BOO and symptoms of overactive bladder were able to empty their bladders efficiently with a slightly higher mean Qmax and lower mean PVR after receiving Solifenacin for three weeks. This improvement was similarly proved even when tested against high outflow resistance.

### Disclosures

**Funding:** None **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Faculty of Medicine, Alexandria University Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes