

## EFFICACY OF ANTIMUSCARINICS IN WOMEN WITH ANTERIOR VAGINAL WALL PROLAPSE: IS IT THE SAME?

### Hypothesis / aims of study

To assess the efficacy of antimuscarinics in women with Overactive Bladder and concomitant anterior vaginal wall prolapse since no papers have been found about this issue doing a Medline search.

### Study design, materials and methods

This is a prospective case-control study including women with overactive bladder symptoms referred to an urogynaecological outpatient clinic. All women were evaluated using a specific questionnaire on urinary and prolapse symptoms and were examined by two trained urogynaecologists. Genital prolapse was scored according to the POP-Q system and a multichannel urodynamic evaluation (including a free-flow rate, a filling cystometry with provocative manoeuvres and a pressure flow study) was always performed. Consecutive women with an urodynamic diagnosis of detrusor overactivity were included for analysis and data were stored onto a dedicated database. Women were then divided into two groups: group 1 included women with a urodynamic diagnosis of overactive detrusor but without an anatomical finding of clinically significant anterior vaginal wall prolapse (< II Stage a); group 2 included women with a urodynamically proven detrusor overactivity and with an anterior vaginal wall prolapse ≥ II Stage a. We then prescribed Toltetrodine 4mg slow release once a day to each woman regardless the presence or absence of anterior vaginal wall prolapse. After 12 weeks of therapy all women were reassessed for antimuscarinic efficacy in the two groups using a 3-point scale (0 = no change, 1 = improvement, 2 = cured) for each OAB symptom. For final analysis improvement and cure were considered together as a single category. For statistical analysis we used the t test for continuous variables and the Fisher exact test for discrete variables. A p value < .005 was considered statistically significant.

### Results

From January 2004 to October 2005 235 women with urodynamically proven detrusor overactivity were enrolled. One-hundred-and-eighty-four of them (Group 1) did not show any prolapse on examination whereas 51 (Group 2) had a finding of anterior vaginal descent ≥ II Stage a.

These two groups did not show any significant difference for age, BMI, parity, previous urogynaecological surgery, menopausal state and actual use of HRT as shown in table 1.

Table 1. Comparison between group 1 and group 2 for age, BMI and parity expressed as median values and range, and for previous urogynaecological surgery, menopausal state and actual use of HRT expressed as absolute number and percentage.

|                         | <b>Group 1 (n. 184)</b> | <b>Group 2 (n. 51)</b> | <b>P</b> |
|-------------------------|-------------------------|------------------------|----------|
| <b>Age</b>              | 59 (20-85)              | 59 (35-82)             | 0.42     |
| <b>BMI</b>              | 26 (17-60)              | 27 (17-42)             | 0.32     |
| <b>Parity</b>           | 2 (0-6)                 | 2 (0-6)                | 0.17     |
| <b>Previous surgery</b> | 52 (28%)                | 11(22%)                | 0.37     |
| <b>Menopausal state</b> | 132 (72%)               | 39 (76%)               | 0.59     |
| <b>HRT</b>              | 35 (26%)                | 7 (18%)                | 0.53     |

After 12 weeks of treatment 158 (85.9%) women in Group 1 and 31 (60.8%) in Group 2 reported improvement or cure in their condition, with a p value of 0.0002. Amongst non-responders the totality of them gave up treatment in both groups. Eight out of the 20 non-responders in Group 2 were submitted to prolapse repair. Six of them reported a postoperative improvement or cure of their OAB symptoms; the remaining 2 had no benefit after prolapse repair.

### Interpretation of results

OAB symptoms can be due to different pathophysiological mechanisms. A stretching of nervous fibres caused by a clinically significant anterior vaginal prolapse has been reported as one of the possible causes. Few authors have reported an improvement of 30-40% of OAB symptoms after prolapse repair, but conversely at the best of our knowledge no data are available on the efficacy of antimuscarinics in women with OAB and concomitant anterior vaginal prolapse. Our study is the first one to show a significant reduced efficacy of antimuscarinics in women with anterior vaginal wall descent greater than Stage II a.

### Concluding message

Women with OAB and concomitant clinically significant anterior vaginal wall prolapse should be informed of a reduced efficacy of antimuscarinics in treating their urinary symptoms.

### **FUNDING:**

**NONE**

### **DISCLOSURES:**

**NONE**

### **CLINICAL TRIAL REGISTRATION:**

**This clinical trial has not yet been registered in a public clinical trials registry.**

### **HUMAN SUBJECTS:**

**This study did not need ethical approval because part of normal clinical activity but followed the Declaration of Helsinki Informed consent was obtained from the patients.**