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**Title:** A RANDOMIZED CONTROLLED TRIAL OF TOLTERODINE AND OXYBUTYNYN ON TOLERABILITY AND CLINICAL EFFICACY FOR TREATMENT OF CHINESE WOMEN WITH OVERACTIVE BLADDER

### **Aims of study:**

To compare the tolerability and clinical efficacy of tolterodine against oxybutynin in the treatment of Hong Kong Chinese women suffering from overactive bladder

### **Methods:**

A randomized, controlled trial was conducted at two urogynaecology centers in Hong Kong. A total of 106 women with urodynamically proven detrusor instability were recruited. Baseline severity assessments were made by visual analogue scale (VAS), urinary diary and urinary pad test. The women were randomized into receiving either oral tolterodine 2mg or oxybutynin 5mg twice daily for 10 weeks. Treatment responses were assessed at week 4 and week 10 by VAS and urinary diary. Treatment tolerability was assessed at baseline, week 4 and week 10 by the Xerostomia Questionnaire (XQ). A urinary pad test was repeated at week 10.

### **Results:**

Perceived change from baseline VAS was significantly better in the tolterodine group than the oxybutynin group after 10 week of treatment ( $1.81 \pm 1.93$  vs.  $1.13 \pm 1.18$ ,  $p=0.035$ ). The two medications were effective in reducing symptoms of frequency ( $p<0.0005$ ) and urgency ( $p=0.026$ ). Tolterodine was significantly better than oxybutynin in reducing urinary leakage by urinary pad test ( $-44.91 \pm 81.75$  gm vs.  $-5.59 \pm 88.56$  gm,  $p=0.019$ ). Both drugs caused similar worsening of dry mouth as shown by the XQ (overall dryness  $p<0.005$ , uncomfortable feeling  $p<0.005$ , sleep  $p=0.021$ , speak  $p=0.045$ , swallow  $p=0.004$  & liquid consumption  $p=0.017$ ).

### **Conclusions:**

Both oxybutynin and tolterodine were effective in improving symptom severity of detrusor instability. Tolterodine is better than oxybutynin in both subjective and objective outcome measurements. However, both drugs caused similar worsening of dry mouth that may limit the tolerability of these medications.

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