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## **EFFICACY AND TOLERABILITY OF ANTICHOLINERGICS IN KOREAN CHILDREN WITH OVERACTIVE BLADDER: A MULTICENTER RETROSPECTIVE STUDY.**

### Hypothesis / aims of study

We investigated the efficacy and tolerability of various anticholinergics in Korean children with non-neurogenic overactive bladder (OAB).

### Study design, materials and methods

A total of 326 children (males:females = 157:169) aged under 18 years (mean age  $7.3 \pm 2.6$  years) who were diagnosed with OAB from January 2008 to December 2011 were retrospectively reviewed. All patients were treated with anticholinergics for more than 1 week. The efficacy and tolerability of anticholinergics were evaluated after the initiation of treatment.

### Results

The mean duration of OAB symptoms before anticholinergic treatment was  $16.9 \pm 19$  months. The mean duration of medication was  $5.6 \pm 7.3$  months. Urgency urinary incontinence episodes per week decreased from  $1.9 \pm 3.1$  to  $0.4 \pm 1.5$  times ( $P < 0.001$ ). The median voiding frequency during daytime was decreased from  $9.2 \pm 5.4$  to  $6.3 \pm 4.2$  times ( $P < 0.001$ ). According to 3-day voiding diaries, the maximum and average bladder capacity were increased from  $145.5 \pm 66.9$  to  $196.8 \pm 80.3$  mL and from  $80.8 \pm 39.6$  to  $121.8 \pm 56.5$  mL, respectively ( $P < 0.001$ ). On uroflowmetry, maximum flow rate was increased from  $17.6 \pm 8.4$  to  $20.5 \pm 8.2$  mL/sec ( $P < 0.001$ ), whereas the post-voiding residual volume was decreased from  $24.4$  to  $14.3$  mL ( $P < 0.001$ ). Adverse effects were reported in 14 (4.3%) children and six children (1.8%) discontinued medication due to adverse effects.

### Interpretation of results

In the current study, 78.2% of 243 children with urgency showed clinical improvement (no urgency) after anticholinergic treatment. UUI was improved (90% or over improved) in 79.1% of 158 children. Although symptom improved in current OAB patients and the age of healthy population was younger than that of current study, the maximum bladder capacity after anticholinergic treatment was still smaller than that of healthy population. There were no significant differences in improvement of urgency or UUI according to the types of anticholinergics.

### Concluding message

Our results indicate that anticholinergics are effective to improve OAB symptoms and tolerability was acceptable without severe complications in children with OAB.

### Disclosures

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