

## EFFECT OF ANTICHOLINERGICS ALONE ON THE NOCTURIA WITHOUT NOCTURNAL POLYURIA

### Hypothesis / aims of study

One of the major symptoms to affect negatively to quality of life of the patients is nocturia, which should be controlled. Since the causes of the nocturia are very multifarious, the multiple drugs including antidiuretics, anticholinergics, NSAIDs and etc, would be applied, which make adverse effects increase. The aim of this study is to investigate the effects of anticholinergics, trospium, alone to control nocturia, not suggestive by nocturnal polyuria.

### Study design, materials and methods

The subjects are 22 males and 102 females who complained over 2 times of nocturia in the night. The method of medication was chosen among once just before sleep in case of nocturia without urgency and twice a day in case of nocturia with urgency. The patients taking alpha-blocker or muscle relaxants concomitantly, the patients with peak urine flow rate under 15ml/sec and residual urine over 30 ml, nocturnal polyuria were excluded. Nocturia, daytime frequency, urgency, uroflowmetry and post-void residual urine were evaluated at pre-treatment, post-treatment 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup> month.

### Results

Four point two times of nocturia in man improved into 2.1, 1.8, 2.3 at post-treatment 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup> month and 3.9 in women, into 1.6, 1.5, 1.9 post-treatment 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup> month respectively. Once just before sleep and twice a day in medication are not different to reduce nocturia. No significant difference in improvement of the nocturia according to age or severity of nocturia is observed. Daytime frequency changed 12.3 times into 10.1, 9.8, 9.9 times post-treatment 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup> month respectively. Urgency decreased 3.6 times into 2.5, 1.9, 1.7 post-treatment 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup> month, respectively. Two point nine times in urge incontinence improved to 1.3, 1.1, 0.9 times with anticholinergic medication. Peak urine flow rate and post-void residual urine were not significantly changed compared to pre-medication. There is nothing significant in adverse event except mild dry mouth.

### Interpretation of results

Anticholinergic medication in patients complaining nocturia without nocturnal polyuria improved significantly lower urinary tract symptoms including nocturia without significant changes in peak urine flow rate and post-void residual urine.

### Concluding message

In case of nocturia without nocturnal polyuria, anticholinergics was one of the option to improved the symptom.

### Disclosures

**Funding:** no disclosures **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Busan Paik Hospital, Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes