

## ASSOCIATION BETWEEN URGENCY AND URGENCY BOTHER/TREATMENT SATISFACTION IN PATIENTS WITH OVERACTIVE BLADDER AND AN IMPROVEMENT PATTERN OF URGENCY.

### Hypothesis / aims of study

To examine the relationship between urgency (U) improvement and urgency bother (UB)/treatment satisfaction (TS) in patients with overactive bladder (OAB) whose U were improved variously by treatments.

### Study design, materials and methods

Male patients with OAB with 1 episode of U daily received propiverine hydrochloride (10 mg, once daily in the morning) for 2 months and concurrently underwent bladder training. Parameters were analyzed in 180 patients whose symptoms were improved by treatments, and they were assigned to the following groups: group A consisting of 90 patients whose frequency of U reduced but whose U intensity (0-9 in Visual Analogue Scale) remained unchanged; and group B consisting of 90 patients whose frequency of U remained unchanged but whose intensity of U improved. Time-course changes in maximum voided volume (MVV), 9 categorical UB-VAS (0; no troublesome, 8; severe troublesome), 9 categorical TS-VAS (0; delighted, 8; terrible), and an improvement pattern of U during treatment were closely monitored. Also, The following two questions were posed to patients in group A: a) "To what extent do you desire frequency of U be reduced? and b) Do you think that UB is bettered only by improving intensity of U without change in frequency?, if so to what extent do you desire intensity of U be reduced?" The following questions were posed to patients in group B: a) "To what extent do you desire frequency of U be reduced? and c) Do you think that UB is bettered only by improving frequency of U without change in intensity?, if so to what extent do you desire intensity of U be reduced?"

### Results

In group A, frequency of U reduced (from 7 to 3.5 voids/week, median), and intensity of U remained unchanged (8.0 in median).

In group B, frequency of U remained unchanged, and intensity of U decreased significantly (from 8.0 to 3.5 in median).

1) MVV increased from 120 mL to 160 mL in group A and from 125 mL to 280 mL in group B ( $p < 0.0001$ ).

2) UB-VAS decreased from 7.5 to 6.0 in group A and from 8.0 to 3.5 in group B ( $p < 0.0001$ ).

3) TS-VAS was 6.0 in group A and was 3.0 in group B ( $p < 0.0001$ ).

4) Warning time (WT) prolonged from 1 to 2 weeks after treatment, and patients became aware of leeway for going to the toilet. Patients could gradually undergo bladder training more positively since then. In group A, frequency improved from mild urgency to strong desire to void (SDV: defined as  $\geq 30$ -minute WT). In group B, intensity improved from moderate/severe urgency to mild urgency (defined as  $\geq 30$ -second WT).

5) Reply to a):  $\leq 1$  episode of U per week

Reply to b): UB improves when intensity betters by  $\geq 50\%$ .

6) Reply to a):  $\leq 2$ -3 episodes of U per week

Reply to c): UB does not improve unless intensity betters.

### Interpretation of results

The results from the present study revealed that the improvement of intensity rather than frequency of U contributes to the improvement of UB and TS of OAB. Furthermore, I concluded that the improvement of U was attributable to a continuous and gradual decrease in intensity peak and to the shift in intensity from (mild) U to SDV, and clinical distinction between urgency and SDV was almost impossible during treatment.

### Concluding message

More clear and discrete evaluations and definitions between U and SDV, including distinction between intensification of normal urge to void and pathologic U, might be necessary to manage or to evaluate OAB appropriately.

<b>Specify source of funding or grant</b>	none
<b>Is this a clinical trial?</b>	Yes
<b>Is this study registered in a public clinical trials registry?</b>	No
<b>Is this a Randomised Controlled Trial (RCT)?</b>	No
<b>What were the subjects in the study?</b>	HUMAN
<b>Was this study approved by an ethics committee?</b>	Yes
<b>Specify Name of Ethics Committee</b>	Kobe Medical Center Institutional Review Board.
<b>Was the Declaration of Helsinki followed?</b>	Yes
<b>Was informed consent obtained from the patients?</b>	Yes