

## IS THE EFFECT OF HYDRODISTENSION TEMPORAL? —5YEAR FOLLOW-UP OF 170 PAINFUL BLADDER SYNDROME PATIENTS—

### Hypothesis / aims of study

Hydrodistension is one of the most important diagnostic tools for painful bladder syndrome (PBS). Hydrodistension can give PBS patients pain relief to some extent and the effect is considered to be temporal (about 3-6 months) among physicians. However, we sometimes experience those cases in which hydrodistension keep a long-term good effect on PBS symptoms. So we studied the long-term results of hydrodistension for 170 PBS patients in order to investigate the real efficacy of hydrodistension on PBS symptoms

### Study design, materials and methods

We performed hydrodistension under sufficient anesthesia as a primary treatment for 170 PBS patients (ulcer type: 56, non-ulcer type: 114) from 4/1/1998 to 3/31/2005. O'Leary-Sant IC Symptom Index and IC Problem Index (OS-score), and voiding diary were recorded pre/post-operatively (1, 3, 6 and 12months after hydrodistension). Bladder capacity under anesthesia was also measured at 80cmH<sub>2</sub>O. As an adjuvant treatment, suplatast tosilate (IPD-1151T) was administered in 121 cases. An anti-cholinergic agent was administered in 8 cases. Amitriptyline hydrochloride was administered in 5 cases. Treatment relapse was defined as re-admission to receive 2nd hydrodistension. Time to relapse was calculated between 1st hydrodistension and relapse date by Kaplan-Meier method. OS- score and voiding diary at 3, 6 and 12 months after hydrodistension were compared with those at 1 month after hydrodistension in 126 cases, in which there was no relapse in 12 months after hydrodistension.

### Results

From voiding diary, pre-operative maximal voided volume in ulcer type (average 109ml) was smaller than those in non-ulcer type (average 166ml) ( $p<0.05$ ). Bladder capacity under anesthesia was 656ml in non-ulcer type and 451ml in ulcer type ( $p<0.05$ ). All OS- scores were higher in ulcer type than in non-ulcer type. All OS- scores improved after hydrodistension. Of all the patients, 45 patients (26.4%) relapsed. Of 114 non-ulcer type patients, 14 patients (12.3%) relapsed. Of 56 ulcer type patients, 31 patients (55.6%) relapsed. 1, 3, and 5year relapse free rate was 91.6%, 85.3%, and 85.3% in non-ulcerative type and 60.0%, 31.8% and 31.8% in ulcer type (fig.1). The adjuvant treatments did not have any influence on relapse free rate. Median and average follow-up months after the 1st hydrodistension were 30.7 and 33.7. There was no relapse after the first hydrodistension in the patients who had been well for 3 years. OS-scores and maximal voided volume did not change significantly in 126 cases during 12 months after the first hydrodistension.

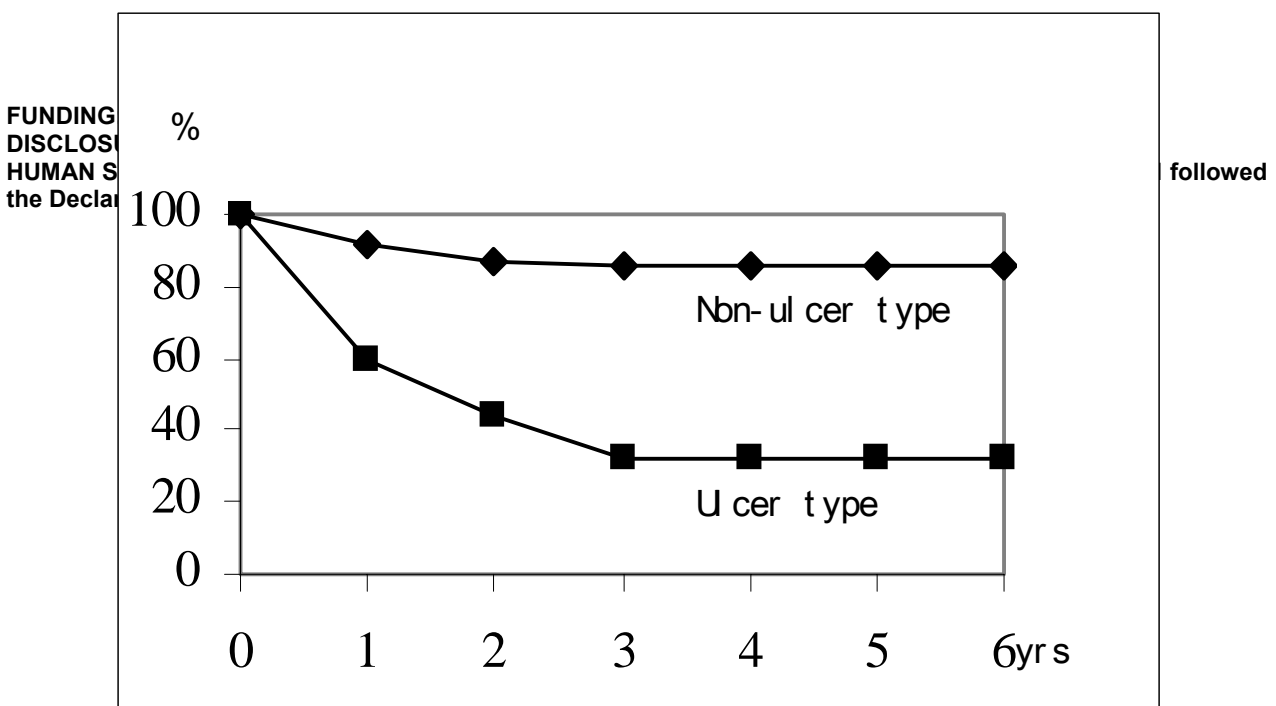
### Interpretation of results

In this study, we analyzed the clinical course of PBS cases after hydrodistension. Hydrodistension improved OS-scores in all cases. The effect of hydrodistension last for more than 3 years in 85.3% of non-ulcerative cases and in 31.8% of ulcer type cases. It is likely that the effect of hydrodistension is not temporal.

### Concluding message

When a first line treatment including oral medication does not have sufficient effects on PBS cases, hydrodistension should be performed as a salvage therapy. Hydrodistension could be performed as a primary treatment for PBS, because the effect of hydrodistension was not temporal in 73.6% of all the cases in our study.

Figure 1: Relapse free rate after the 1st hydrodistension



Non-ulcer type 91.6 87.1 85.3