

## FIVE TEENAGED CASES WITH INTERSTITIAL CYSTITIS-LIKE LOWER URINARY TRACT SYMPTOMS RELIEVED BY HYDRODISTENTION

### Hypothesis / aims of study

Interstitial cystitis (IC) is often difficult to be diagnosed because the subjective and objective findings are not nonspecific. The adult cases of IC have been well-known for two decades. The symptoms related to IC are compelling urge to urinate that is difficult to postpone, increased urinary frequency, feeling of incomplete emptying and bladder pain. The objective findings related to IC are glomerulations or Hunner's ulcers on cystoscopic examination. In younger cases less than aged 20 years, IC is seldom diagnosed because IC is considered to be a rare disease and the IC-related symptoms are more difficult to be grasped than in adult cases. We experienced 5 teenaged cases with interstitial cystitis-like lower urinary tract symptoms (LUTS), which were relieved by hydrodistention (HD).

### Study design, materials and methods

Two of 5 patients were male and the other 3 patients were female. Their chief complaints were increased daytime urinary frequency and increased bladder sensation. They had no symptoms of nocturia or urgency. Only one patient had feeling of incomplete emptying and bladder pain. The onset of symptoms occurred at the age of 12 to 18 years. The symptoms had continued for 0.5 to 96 months although they were treated with antimuscarinics etc (Table). None of them had objective findings of neurogenic bladder or bladder outlet obstruction. HD was performed for all 5 patients.

### Results

The average volume of saline infused in HD was  $308 \pm 40.2$  mL. Glomerulation presented in all cases. There was no Hunner's ulcer. O'Leary-Sant IC symptom index and problem index significantly decreased after HD ( $8.8 \pm 1.4$  vs  $3.8 \pm 1.0$ ,  $p < 0.05$ ;  $8.8 \pm 1.0$  vs  $1.6 \pm 0.4$ ,  $p < 0.01$ , respectively) (Figure). There was no major adverse effect of HD.

### Interpretation of results

Both of the subjective and objective findings were compatible with adult IC in all cases. The LUTS resistant to antimuscarinics were significantly improved by HD. Therefore, the bladder condition in these cases can be considered to be IC.

### Concluding message

There should be certain prevalence of increased bladder sensation similar to adult IC in pediatric cases. It is possible that only the severe cases have so far been diagnosed as IC and mild cases as the other diseases resistant to therapies. We need to keep IC in mind when we examine the pediatric patients with bladder storage symptoms.

Table Patients Characteristics

No. of Pt	Gender	Age at the Onset (years)	Time of Morbidity (months)	Symptoms			IC Index	
				#1	#2	#3	Symptom	Problem
1	M	12	6	○	○		8	9
2	F	18	0.5	○	○	○	12	10
3	F	11	8	○	○		7	9
4	M	15	96	○	○		12	11
5	F	15	7	○	○		5	5

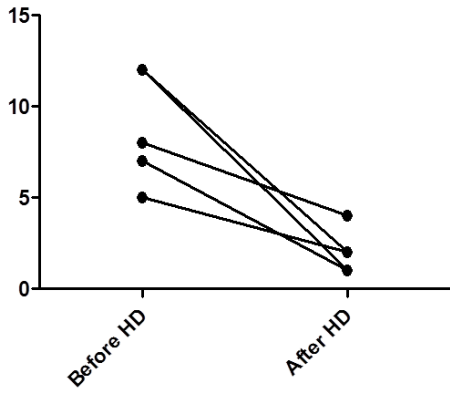
#1 Increased daytime urinary frequency

#2 Increased bladder sensation

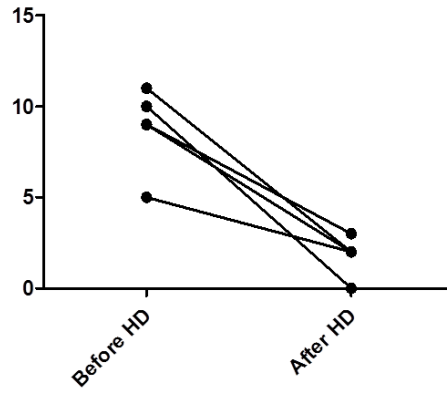
#3 Bladder pain

Figure

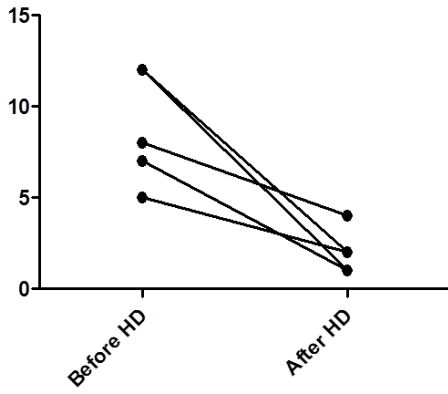
IC Symptom Index



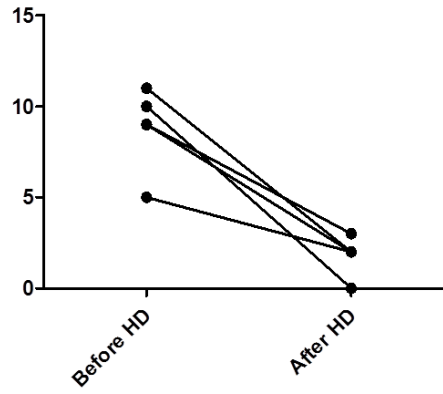
IC Problem Index



**IC Symptom Index**



**IC Problem Index**



<i>Specify source of funding or grant</i>	None
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	It was not a trial.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes