

Lee K¹, Lee S Y², Lee H N³, Lee Y⁴, Cho W J⁵, Lee H S⁶, Chung J W¹, Chung J Y⁷

1. Department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, 2. Department of Urology, Myongji Hospital, Kwandong University College of Medicine, Goyang, Korea, 3. Department of Urology, Ewha Womans University Medical Center, Seoul Seonam Hospital, Seoul, Korea, 4. Department of Urology, Samsung Changwon Hospital, Sungkyunkwan University School of Medicine, Changwon, Korea, 5. Department of Urology, Chosun University Hospital, Chosun University School of Medicine, Gwangju, Korea, 6. Department of Urology, Chil General Hospital and Women's Healthcare Center, Kwandong University College of Medicine, Seoul, Korea, 7. Department of Urology, Inje University Sanggye Paik Hospital, Inje University College of Medicine, Seoul Korea

EFFICACY AND SAFETY OF SUPRATRIGONAL CYSTECTOMY WITH ILEOCYSTOPLASTY FOR THE TREATMENT OF BLADDER PAIN SYNDROME/INTERSTITIAL CYSTITIS.

Hypothesis / aims of study

Bladder pain syndrome/interstitial cystitis (BPS/IC) is chronic bladder condition defined as the complaint of suprapubic pain related to bladder filling, accompanied by other symptoms such as frequency and nocturia, in the absence of proven urinary infection or other obvious pathology. Although a number of nonsurgical treatment modalities or conservative surgical treatment such as transurethral resection or fulguration of the lesions have been reported to result in good, initial failure or patients with diminishing efficacy after an initial response are also common. Supratrigonal cystectomy with ileocystoplasty is one of surgical options for BPS/IC. We evaluated the long-term results of supratrigonal cystectomy with ileocystoplasty for BPS/IC.

Study design, materials and methods

We retrospectively evaluated 26 patients (male: 1, female: 25) who had undergone supratrigonal cystectomy with ileocystoplasty by same surgeon from July 2006 to February 2010. All patients had poor therapeutic response to the conservative treatment including pharmacotherapies and/or hydrodistention. Preoperative evaluation included medical history, pain visual analogue scale (pain VAS: 0 means no pain and 10 means severe pain), O'Leary-Sant interstitial cystitis symptom and problem index (IC-symptom index and IC-problem index), physical examination, 3 days frequency-volume chart, routine urinalysis and urine culture, urine cytology, urodynamic investigation, cystoscopic examination under general anesthesia. Postoperatively patients visited the clinic after 1 month, 3 months for voiding cystourethrography, 6 months for urodynamic investigation, at which time patients were evaluated pain VAS, IC-symptom and problem index, 3 days frequency-volume chart. In addition, patients were interviewed using global response assessment (GRA) composed of seven stepped answers and patient global assessment (PGA) composed of 5 grade answer for assessing their global satisfaction and interaction between degree of symptoms and limitation of activities respectively.

Results

The mean age and symptom duration of patients were 58.69 ± 10.03 years and 3.9 ± 2.0 years respectively. The follow up range was 6 to 34 months. Preoperative mean pain VAS, micturition frequency and functional bladder capacity according to frequency-volume chart, IC-symptom index and IC-problem index were 8.73 ± 1.75 , 21.55 ± 2.05 , 130.53 ± 56.22 , 17.36 ± 2.84 , 15.00 ± 1.52 respectively and all were improved significantly (Table). Maximal cystometric capacity also was increased significantly and maximal flow rate was improved but postvoid residual urine was increased significantly (Table). Of 26 patients, 25 patients (96.2%) answered that their symptoms were improved and 19 patients (73.1%) markedly improved according to GRA questionnaire (Figure A). With PGA questionnaire, 18 patients (69.2%) answered that they had no limitation of normal activities (Figure B). There were no perioperative complications except only one patient who underwent emergent surgery for postoperative bleeding. Four patients needed to perform clean intermittent self-catheterization. Four patients showed vesicoureteral reflux without upper urinary tract damage at 3 months after surgery and one patient with relatively severe vesicoureteral reflux was treated with subureteral macropastique injection successfully. During follow up, urinary tract infections occurred in five patients and urothelial carcinoma in bladder occurred in one patient.

Interpretation of results

Our results showed supratrigonal cystectomy with ileocystoplasty has good outcomes that pain and frequency had decreased and bladder capacity has increased significantly. In addition, patients' global responses revealed that they had satisfied with treatment. There is no severe complication with surgery for short-term and long-term follow up.

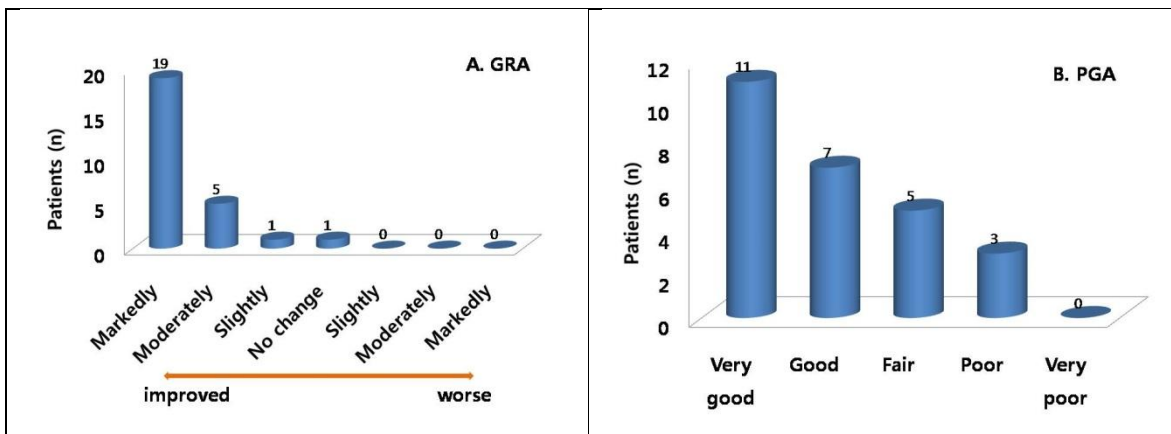
Concluding message

Supratrigonal cystectomy with ileocystoplasty is a valuable therapeutic option for intractable bladder pain syndrome/interstitial cystitis. Patients also must be aware of the possibility of self-catheterization.

Table. The change of pain visual analogue, O'Leary-Sant interstitial cystitis symptom (IC) symptom index and problem index, frequency-volume chart, urodynamic parameter

	Preoperative (Mean ± SD)	Postoperative 6 months (Mean ± SD)	p-value
pain visual analogue scale (0-10)	8.73 ± 1.75	0.96 ± 1.28	<0.05
O'Leary-Sant IC Index			
IC-Symptom index (0-20)	17.36 ± 2.84	8.56 ± 5.41	<0.05
IC-Problem index (0-16)	15.00 ± 1.52	6.12 ± 4.40	<0.05
Frequency-volume chart			
Micturition frequency	21.55 ± 2.05	10.74 ± 5.35	<0.05
Functional bladder capacity	130.53 ± 56.22	283.16 ± 131.16	<0.05
Urodynamic parameter			
Maximal cystometric capacity (ml)	206.48 ± 17.91	377.38 ± 90.5	<0.05
Maximal flow rate (ml/sec)	13.84 ± 8.45	18.16 ± 10.49	0.148
Postvoid residual urine (ml)	31.88 ± 30.51	150.06 ± 190.27	0.004

Figure A, B. Global response assessment (GRA) and Patient global assessment (PGA)



Disclosures

Funding: No source of funding or grant **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective study **Helsinki:** Yes **Informed Consent:** No