

Long-term satisfaction and complications in women with ulcer type interstitial cystitis undergoing partial cystectomy and augmentation enterocystoplasty

Hsiu-Jen Wang, Hann-Chrong Kuo

Department of Urology, Buddhist Tzu Chi General Hospital and Tzu Chi University, Hualien, Taiwan

Introduction

Interstitial cystitis/bladder pain syndrome (IC/BPS) is a chronic syndrome characterized by chronic pelvic pain (> 6 months) with lower urinary tract symptoms. Current consensus suggests the patients with IC/BPS could be subdivided into two types, ulcerative and non-ulcerative IC. Among all medical and surgical treatments for IC/BPS, partial cystectomy(PC) and augmentation enterocystoplasty (AE) is considered a treatment of last resort which may be used just when other therapy such as Intravesical injection of botulinum toxin A or cystoscopy with hydrodistension cannot meet the expectations. The aim of our study is to investigate the long-term satisfaction and complications of the patients undergoing AE which may inspire the pros and cons in treating for refractory IC/BPS.

Methods

The medical records of fifteen IC/BPS patients (12 ulcer type and 3 non-ulcer type) undergoing AE in single medical center by a single operator (HCK) during 2010 through 2016 were retrospectively reviewed in this study. All patients had been initially treated conservatively but failed. The clinical symptoms and urodynamic study results before operation were recorded. The long-term satisfaction were evaluated by the global response assessment (GRA) and the symptoms which affect the quality of life such as bladder pain, dysuria, frequency and urinary tract infections (UTI) which were graded on a 4-point scale (2: much improved, 1: mild improved, -1: mild worse, and -2: much worse).

Table 1. Clinical symptoms and urodynamic study results before AE in IC patients

	Ulcer IC (n=12)	Non-Ulcer IC (n=3)	P value
ICSI	16.2±3.7	15.0±3.0	0.626
ICPI	14.1±2.5	13.0±2.6	0.515
OSS	30.3±6.1	28.0±5.6	0.573
VAS	7.3±2.7	7.7±2.5	0.826
FSF (mL)	54.4±33.0	134.0±47.6	0.005
FS (mL)	85.5±48.1	183.0±64.2	0.013
Capacity (mL)	95.8±64.4	203.7±89.9	0.031
Pdet (cmH ₂ O)	27.5±29.7	29.3±27.2	0.923
Qmax (mL/s)	6.0±3.4	14.0±10.6	0.047
Volume (mL)	72.2±30.7	255.3±103.0	0.087
PVR (mL)	19.1±29.1	3.3±5.8	0.383
CBC (mL)	94.4±29.4	258.7±98.2	0.097
MBC (mL)	454.2±207.2	600.0±360.6	0.359
Follow-up (months)	33.2±22.5	52.0±22.6	0.218

Results

The average age was 58.7±12.7 years (range 34~76) and average follow-up period was 36.9±23.1 months. The significant difference between ulcer and non-ulcer IC groups on the clinical symptoms and urodynamic study results before operation were FSF, FS, Capacity and Qmax (Table 1). The complications related with AE was bladder stone in 3 patients who underwent cystolithotripsy (2 ulcer,16.7%, and 1 non-ulcer, 33.3%). Patients with ulcer type IC/BPS underwent AE reported a better outcome on GRA and quality of life compared with non-ulcer type IC/BPS (Table 2 and Table 3).

The results of this study revealed that refractory IC/BPS patients undergoing AE had good outcome especially in ulcer type IC/BPS patients (GRA≥2, 91.6%). However, the symptoms such as bladder pain, dysuria, frequency and UTI still existed in some ulcer IC patients even after AE. There was no any benefit from AE in non-ulcer type IC/BPS patients.

Table 2. Global response assessment (GRA) after AE in ulcer and non-ulcer IC patients

GRA	Ulcer (n=12)	Non-Ulcer (n=3)	P Value
3	4(33.3%)	--	
2	7(58.3%)	1 (33.3%)	
1	1(8.3%)	1(33.3%)	
0	--	--	
-1	--	--	
-2	--	--	
-3	--	1(33.3%)	
P Value			0.093

Table 3. The bladder symptoms after augmentation enterocystoplasty in ulcer and non-ulcer IC patients

GRA	Bladder pain		Frequency		Dysuria		UTI	
	Ulcer (n=12)	Nonulcer (n=3)	Ulcer (n=12)	Nonulcer (n=3)	Ulcer (n=12)	Nonulcer (n=3)	Ulcer (n=12)	Nonulcer (n=3)
2	8(66.7%)	2(66.7%)	1(8.3%)	--	5(41.7%)	--	6(50%)	--
1	4(33.3%)	--	8(66.7%)	2(66.7%)	3(25%)	1(33.3%)	4(33.3%)	1(33.3%)
-1	--	--	3(25%)	--	4(33.3%)	--	1(8.3%)	1(33.3%)
-2	--	1(33.3%)	--	1(33.3%)	--	2(66.7%)	1(8.3%)	1(33.3%)
P Value	0.082		0.172		*0.016		0.290	

Conclusion

PC and AE is a surgery with high risk of long-term complications. The pros and cons in patients with refractory IC/BPS undergoing AE are controversial even it seems to have high GRA grade in ulcerative type IC/BPS patients. Patients with non-ulcer IC should not undergo this operation.

Disclosures Statement: None