

RESEARCH OF EFFECTIVENESS AND COMPLICATIONS IN AUGMENTATION CYSTOPLASTY OF DIFFERENT TYPES OF OPERATIONS

Hypothesis / aims of study

To compare the effectiveness and complications between enterocystoplasty and small intestinal submucosa (SIS) patch cystoplasty through follow-ups of patients with augmentation cystoplasty in our hospital, offering alternative approach for future treatment.

Study design, materials and methods

In this study, retrospective analyses were carried out in 10 patients who underwent enterocystoplasty or SIS cystoplasty in our hospital from November 2011 to December 2016. Clinical data were collected including medical history, surgical procedures, test results and complications. And then regular follow-ups were developed. Ten patients were separated into groups of enterocystoplasty (n=6) and SIS cystoplasty (n=4) to compare their outcomes.

Results

Ten patients all completed the follow-up interview. Five cases underwent augmentation cystoplasty with sigmoid colon, one with ileum and four with SIS cystoplasty successfully. The mean operative time were 302.0±66.6 min, and blood loss was 167.0±135.0 mL. The outcomes of the group of SIS cystoplasty were better in respects of the time of operation (170.0±14.1 vs 318.0±21.4), intestinal function recovery (2.8±2.9 vs 7.2±2.6), postoperative hospitalization duration (8.0±0.8 vs 12.2±2.2) and drainage removal (5.3±2.1 vs 8.3±1.5). The average score of IPSS, OABSS, ICI-Q-SF and O'Leary-Sant were all improved in two groups (Table 1). Two cases carried clean intermittent self catheterization and two used long-term indwelling catheter. Cystoscopic results of SIS cystoplasty after one and seven months respectively of the operation showed a gradual degradation of the patch which was completely unseen after seven months as well as a satisfactory mucosa regeneration. There were three patients with dilations of renal pelvises and ureters consistently or during bladder was filling preoperatively, and the situations were not going bad after the operations. The short-term complications included two cases of postoperative infection, one case of mild intestinal obstruction and one case of metabolic acidosis. The long-term complications included one case of ureterointestinal anastomosis strictures, three of urinary tract infection and one of long-term metabolic acidosis.

Interpretation of results

The outcomes of the group of SIS cystoplasty were better in respects of the time of operation, intestinal function recovery, postoperative hospitalization duration and drainage removal. The average score of IPSS, OABSS, ICI-Q-SF and O'Leary-Sant were all improved in two groups. Cystoscopic results showed satisfactory patch degradation and mucosa regeneration after SIS cystoplasty in refractory interstitial cystitis/painful bladder syndrome.

Concluding message

Enterocystoplasty and SIS cystoplasty are both effective operations to improve symptoms and protect upper urinary function, with no severe complications. But the number of patients included were quite small and the follow-up period was not long enough. Prospective control study of larger number of patients with longer follow-ups are expected to find out the effectiveness and safety of SIS cystoplasty.

Table 1 Score of symptom questionnaires preoperatively and postoperatively in group of enterocystoplasty and SIS cystoplasty

		IPSS	OABSS	ICI-Q-SF	O'Leary-Sant
enterocystoplasty	Preoperatively	23.0±3.7	7.4±2.4	9.4±9.0	-
	Postoperatively	8.4±6.1	2.6±5.8	2.2±2.0	-
	t value	1.860	1.860	1.860	-
	P value	0.001	0.007	0.059	-
SIS cystoplasty	Preoperatively	17.3±2.3	7.7±1.2	3.3±5.8	28.0±1.4
	Postoperatively	7.6±4.7	3.0±1.7	0.7±1.2	7.0±0.0
	t value	2.132	2.132	2.353	2.920
	P value	0.017	0.009	0.000	0.001

Disclosures

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