774

Gajewski J[1], Massaro P[1], Bailly G[1]
1. *Department of Urology, Dalhousie University*

ILEAL CONDUIT URINARY DIVERSION CREATED FROM THE RETUBULARIZED POUCH OF AN AUGMENTATION ILEOCYSTOPLASTY

Hypothesis / aims of study

Patients with neurogenic bladder or bladder pain syndrome/ interstitial cystitis (BPS/IC) may not sufficiently respond to a bladder augmentation, warranting conversion to an ileal conduit. However, creation of an ileal conduit from a de novo segment of small bowel is not without metabolic and surgical risks. We present the outcomes and long-term follow-up of patients who failed initial ileocystoplasty and subsequently underwent conversion to an ileal conduit urinary diversion utilizing the retubularized pouch from the initial bladder augmentation.

Study design, materials and methods

We reviewed all patients at our centre who were converted to an ileal conduit utilizing the pouch from the original augmentation ileocystoplasty. Patient work-up, symptom severity, prior therapies, indications for and response to surgery, and complication rates were assessed to provide objective measures of clinical outcomes. The need for subsequent invasive urinary tract surgery was also evaluated. The global response assessment (GRA) scale based on patient-reported post-conduit symptom response was used to provide a subjective measure of overall treatment effectiveness. Surgical therapy was deemed to be successful in patients who reported improvement in symptoms based on the GRA scale.

Results

Ten patients with BPS/IC and two with neurogenic bladder underwent conversion to an ileal conduit and were followed for a mean of 71 months (range 4 to 212 months). Three male and 9 female patients were included with a mean age of 56.7 years. Based on available pre-operative LUTS grading, patients had at least one symptom reported as severely bothersome, and consistently more than three symptoms reported as at least moderately bothersome. The most common indication for surgical conversion after prior ileocystoplasty was ongoing severe LUTS, particularly persistent incontinence and bladder pain, despite several attempts at conservative management.

All operative conversions were successful with few early complications. Late complications occurred with greater frequency, the most common being recurrent urinary tract infections (4), parastomal hernias (5), and ureteric strictures (2). Renal function was well preserved in all but one patient who developed a refractory ureteric stricture. Based on GRA responses, 40% of patients reported subjective clinical improvement after ileal conduit creation, 20% reported no change in symptoms, and 40% reported worsened symptoms. Half of the patients underwent additional urinary tract surgery to further treat their underlying symptoms including simple cystectomy and/or urethrectomy (4), and conversion to a neobladder (1), and an Indiana pouch (1).

Interpretation of results

Surgical outcomes were associated with no intra-operative and few early complications, maintained long-term renal function, and improvement in LUTS; however, half of the patients required additional invasive surgery either to manage late complications or ongoing symptoms, particularly pain. The higher rate of late complications in our study compared to other series [1, 2] likely reflects the longer follow-up period of our patient population. Less than half of patients were satisfied with their post-ileal conduit symptom response based on the GRA scale. This reflects the challenges in managing the debilitating symptoms of a complicated patient population who have already failed several, more conservative therapies. Further, subjective patient symptom response may be negatively skewed by surgical complications, or the day-to-day challenges of ostomy management.

Nevertheless, after failure of several less-invasive therapies, a large proportion of patients still achieved an acceptable level of symptom control and long-term complications could be mostly managed with conservative therapy. The advantages of creating an ileal conduit without a new segment of small bowel include elimination of the need for new small bowel and uretero-enteric anastomoses, a less technically challenging operation, and minimizing potential metabolic consequences of additional small bowel shortening.

Concluding message

Surgical conversion to an ileal conduit utilizing the retubularized ileocystoplasty pouch should be considered a viable treatment option in patients who have exhausted more conservative management of their LUTS.

References

1. Bissada, N.K., et al., Urinary conduit formation using retubularized bowel from continent urinary diversion or intestinal augmentations: I. A multi-institutional experience. Urology, 2004. 64(3): p. 485-7; discussion 487.
2. Elzawahri, A., et al., Urinary conduit formation using a retubularized bowel from continent urinary diversion or intestinal augmentations: ii. Does it have a role in patients with interstitial cystitis? J Urol, 2004. 171(4): p. 1559-62.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Capital Health Research Ethics Board Centre for Clinical Research, Room 118 5790 University Ave., Halifax, NS, Canada B3H1V7 **Helsinki:** Yes **Informed Consent:** Yes