Purpose

The aim of this study was to evaluate changes of bladder capacity and urinary functional outcomes of patients undergoing ileal orthotopic neobladder (NB) reconstruction on the time using a bladder diary which is simple but very useful tool.

Materials and Methods

- Retrospectively reviewed medical records of 136 patients who underwent ileal orthotopic NB from January 2016 to December 2017 in our hospital.
- Excluded records of patients whose
  - increased residual urine volume(>50ml)
  - suffered from continuous incontinence caused by vaginal-neobladder fistula
- Therefore, we included uroflowmetrics and a total of 254 bladder diaries of 110 patients in analysis.
- The time elapsed of the postoperative period was grouped at 3-month intervals to obtain the mean or percentage of the given variables.
- Results were analyzed with IBM SPSS 22.0

Results

- 24 hr and nocturnal urine volume and maximal flow rate didn’t change with time elapsed of postoperative period statistically.
- 24 hr frequency (F=4.053, p=.001) including daytime frequency (F=3.409, p=.005) and nocturia (F=2.374, p=.04) showed a statistical difference and decreased with time after surgery.
- Maximum voided volume
  - reached about 350ml similar to the normal bladder volume within 3 months from approximately 200ml at the initial stage
  - showed a significant negative correlation with 24 hr frequency (r=-.419, p<.01) including daytime frequency (r=-.373, p=.01) and nocturia (r=-.261, p.<.01)
- Both daytime and nocturnal incontinence significantly decreased with time. The incidence of daytime incontinence was 30.8% and the incidence of the nocturnal incontinence was 69.2% between 10 and 12 months after surgery. This showed that nocturnal incontinence still had high incidence until that time.

Concluding Message

- We found that the maximum voided volume was reached nearly normal bladder volume within 3 months after surgery. Therefore, healthcare providers should help patients with NB correctly acquire new voiding patterns and identify problems early through bladder diary at the earliest.
- Bladder diary is a very useful tool to evaluate functional outcomes after NB reconstruction without invasion or complexity.

Reference


Disclosure

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