

EFFICACY OF AN ORIGINAL TREATMENT PROGRAM FOR NEUROGENIC BLADDER AFTER RADICAL HYSTERECTOMY

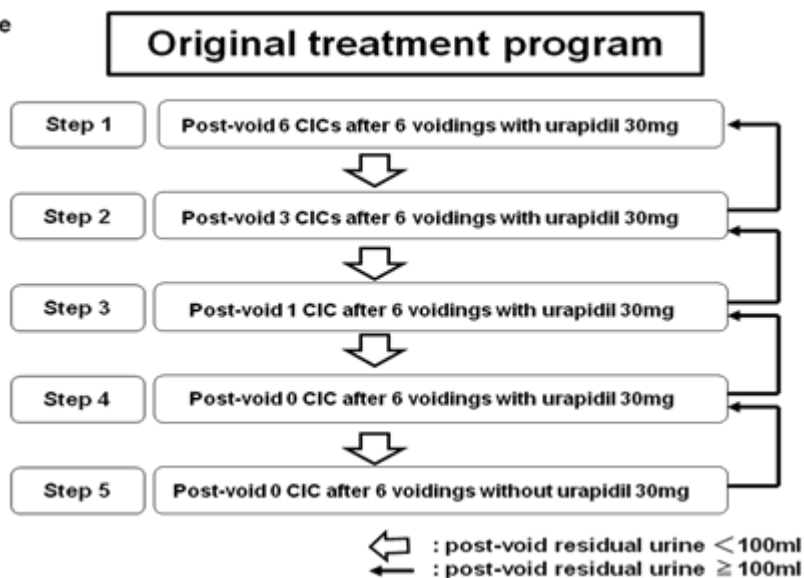
Hypothesis / aims of study

Urologists sometimes encounter postoperative urinary dysfunction after radical hysterectomy. It is estimated that 16 to 80% of post operative patients develop voiding dysfunctions¹⁾. Although neural invasion or direct bladder and urethral trauma during surgery are thought to be important causes, the precise mechanisms remain unclear. Urinary dysfunction caused by radical hysterectomy sometimes brings about urinary tract infections or renal insufficiency. Each physician uses different treatment, e. g. continuous intermittent catheterization (CIC), however, the suitable treatment for urinary dysfunction is controversial. Recently it has been reported that α -blockers are effective for underactive detrusor or lower urinary tract symptoms in female^{2, 3)}. Based on these reports, we have been using an original treatment strategy for urinary dysfunction since July 2010 and retrospectively evaluated the efficacy of this approach.

Study design, materials and methods

Between July 2010 and February 2013, 110 patients underwent radical hysterectomy at Tottori University Hospital. During this period, 32 patients with increased post-void residual urine following radical hysterectomy for cervical or endometrial cancer were enrolled into our program. We treated patients by using CIC and urapidil (α -blocker) medication. All the patients were asked to void before every CIC. Timings and frequencies of CIC and use of urapidil were set according to the condition of each patient using five steps (Figure) that were performed according to residual urine volume. If patients had post-void residual urine lower than 100ml, we stepped up the program schedule. On the other hand, if patients had post-void residual urine greater than 100ml, we stepped down the program schedule as shown below. The final goal of the program was discontinuation of CIC and urapidil medication.

Figure



Results

The mean age of enrolled patients was 50 years (range, 31-67 years). The underlying pathology was cervical cancer in 28 patients (Stage Ib, n=17; Stage IIa, n=2; Stage IIb, n=9) and endometrial cancer in the remaining 4 patients (Stage Ia, n=1; Stage IIb, n=2; Stage IIIc, n=1). Radical hysterectomy with pelvic lymphadenectomy was performed in all the patients. Mean duration of catheterization in the enrolled patients was 7.25 days (range, 4-16 days). At the beginning of treatment, 27 patients were receiving CIC and urapidil, three were receiving CIC alone, and two were on urapidil alone. By the end of this program, 27 patients were able to discontinue CIC, and 21 discontinued urapidil. Mean duration of CIC was 80 days (range, 7-357 days), with 16 patients showing early CIC withdrawal (within two months). During this program, urinary tract infection occurred in 2 patients, with acute cystitis in one patients and acute pyelonephritis in another.

Interpretation of results

CIC was successfully discontinued in 90 % of patients, and urapidil was discontinued in 72.4% of patients. 53% of patients achieved early withdrawal of CIC. Only 6.3% of patients developed urinary tract infection. No other adverse events were encountered. No one was excluded from this program because of technical problems.

Concluding message

This protocol may allow safe and effective treatment of urinary dysfunction following radical hysterectomy. Moreover, this protocol is very useful not only for physicians but also co-medical staff.

References

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Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** we considered ethics committee was not needed
Helsinki: Yes **Informed Consent:** Yes