Y- NEOBLADDER: AN UPDATE OF A MULTI-INSTITUTIONAL RETROSPECTIVE STUDY


Background

In the last 90's, we proposed a new kind of ileal orthotopic reservoir: the Y-neobladder proved to be easy and fast to create, to provide good functional results and to have a very low incidence of strictures of ureteral-neobladder anastomosis. In order to confirm those first results, we conducted a retrospective multi-institutional study.

Material and Methods

Eight different Urologic Departments from 8 italian hospital provided the data of all their patients undergone radical cystectomy followed by bladder substitution with Y-neobladder. The main steps of surgical technique used were previously described and published. The following parameters were recorded and retrospectively reviewed: indication for radical cystectomy, surgery notes, early and late complications, data about micturitions, continence and self-catheterism and oncologic follow-up. Continence was defined good if no use of pads was recorder, satisfactory for 1 pad, unsatisfactory > 1 pads. Statistical analysis was performed through a PC software.

Results

Complete data were available for 227 patients, undergone the procedure between September 1999 and January 2010. The mean age at radical cystectomy was 65,12 +/- 9,08 years. Two hundred and one patients were male, while 26 were female. The mean follow-up was 33,06 ± 27,34 months. The indication to radical cystectomy was given for muscle-invasive bladder cancer in 64% of patients, recurrent non-responsive superficial bladder cancer in 34%, other pelvic cancer in 1% and benign bladder diseases in 1%. As far as functional outcome are concerned, the mean daytime voiding frequency was 5,83 micturitions, while the mean nighttime voiding frequency was 2,47 micturitions. A good or satisfactory daytime continence was obtained in 85% of patients with at least 1 year of follow-up (133/157 patients), and nighttime continence was good or satisfactory in 76% (119/157).

The following late complications were recorded: stricture of urethral-neobladder anastomosis in 7,49% of patients (17/227), stricture of ureteral-neobladder anastomosis in 2 patients (2/445 renal units, 0,45%), neobladder stone in 13 patients (5,73%), urinary sepsis in 11 (4,85%), vaginal-neobladder fistula in 3 out of 27 female patients (11%). No severe metabolic complication was recorded.

Discussion
Even though these data are retrospectively collected, on a several different hospital and with a not exactly long follow-up, the results of the study suggest that the Y-neobladder provide good functional outcomes with a low rate of late complications.

Conclusion.
We underline that the incidence of strictures of ureteral-neobladder anastomosis is extremely low (0.45% of renal units) if compared to the results of other ileal reservoir.