

## **Urethra Sparing Cystectomy and Orthotopic Diversion in Females: Oncological Outcomes, Risk and Treatment of Urethral Recurrence**

**Introduction and Objectives:** Urethra sparing cystectomy with orthotopic diversion became a routine option in selected females with bladder cancer. The aim is to evaluate the long-term oncological outcomes in operated patients.

**Materials and Methods:** Between 1994 and 2011 51 females underwent urethra sparing cystectomy and ileal neobladder for muscle invasive or recurrent non-muscle invasive bladder cancer. In all patients, the biopsy from bladder neck and frozen section from urethral margins were performed without tumor positivity. Adjuvant chemotherapy was administered in all pN+ cases. The median follow-up was 4.99 years (0.33-17.1). Prognostic factors for urethral recurrence were considered. Kaplan-Maier method was used to estimate recurrence-free and overall survivals using log-rank tests.

**Results:** The mean age at the time of cystectomy was 57.7 years (32-72). Pathological staging was pT0 in 7, pTa-1 or CIS in 14, pT2 in 17 and pT3 in 13 cases, respectively. Lymph node positivity was detected in 6 cases. Five and 10 year overall and disease-free survivals were 78 and 59% and 71 and 68%, respectively. Survival was dependent from the extent of the disease. Local recurrence in pelvic region affecting the function of the neobladder outlet was detected in 2 cases, in 1 of them after systemic progression. Recurrence in urethra appeared in 2 patients (3.9%), in both cases was the original tumour located on the trigone or bladder base. The first female had originally 2 cm micropapillary carcinoma on the bladder base. She was treated with neobladder extirpation and re-diversion; she died 3 months later with metastatic disease. In the second case, five years after cystectomy for recurrent multiple non-muscle invasive bladder cancer, low grade non-invasive recurrence in the urethra was detected. It was treated with local excision only. The patient is without further recurrence after 2 years' follow-up.

**Conclusions:** Tumor recurrence after urethra sparing cystectomy and orthotopic diversion appeared within 10 years in 32% of females. Urethral recurrence was detected in 2 (3.9%) cases. In one of them it was treated successfully with local excision only.