

NERVE SPARING RADICAL CYSTOPROSTATECTOMY: DOES IT HAVE AN IMPACT ON URINARY CONTINENCE IN PATIENTS WITH AN ILEAL ORTHOTOPIC BLADDER SUBSTITUTE?

Hypothesis / aims of study

It is generally agreed that the autonomic nervous system is of utmost importance for erectile function. However, it is still a matter of debate whether autonomic nerve fibers also play a role in the urinary continence mechanism. We therefore assessed the effect of nerve sparing radical cystoprostatectomy on urinary continence in patients with an ileal orthotopic bladder substitute.

Study design, materials and methods

A consecutive series of 476 men undergoing radical cystoprostatectomy and ileal orthotopic bladder substitution for transitional cell carcinoma without prior radiotherapy and with a minimum follow-up of 3 months were enrolled in this study. Multivariate Cox regression models were used to evaluate factors potentially influencing postoperative urinary continence.

Results

The median age of the 476 patients was 65 years (range 36 to 84 years). The median follow-up was 4 years (range 3 months to 21 years). In multivariate analysis, the only factor significantly influencing daytime continence was nerve sparing and the factor affecting nighttime continence was age. Daytime continence rate in patients with nerve sparing was 1.5 times higher (hazard ratio (HR) 1.5, 95% confidence interval (CI) 1.17-2.02, $p=0.002$) than in those without nerve sparing. Nighttime continence was 1.4 times more often achieved (HR 1.4, 95% CI 1.12-1.74, $p=0.003$) in patients younger than 65 years than in those older than 65 years.

Interpretation of results

Nerve sparing at the time of radical cystoprostatectomy and ileal orthotopic bladder substitution significantly improves daytime continence indicating the importance of the autonomic innervation for the urinary continence mechanism.

Concluding message

Considering the impact on urinary continence, nerve sparing radical cystoprostatectomy should always be attempted if radical tumor resection is not compromised.

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	NONE