

## RISK FACTORS FOR IMPAIRED FUNCTIONAL OUTCOME AND POSTOPERATIVE INCONTINENCE IN MEN WITH RADICAL CYSTECTOMY AND ORTHOTOPIC ILEAL NEOBLADDER

### Hypothesis / aims of study

Postoperative stress urinary incontinence is frequently observed in patients undergoing radical cystectomy with ileal orthotopic neobladder and leads to an impaired quality of life. Our goal was to assess potential risk factors for impaired functional outcome in men with ileal neobladder in a large monocentric series of patients.

### Study design, materials and methods

Pre- and perioperative data of 154 male patients who underwent radical cystectomy between 2004 and 2015 in one reference center were assessed retrospectively. In addition, questionnaires were sent to the patients and follow-up was obtained. Postoperative continence was assessed by daytime and nighttime pad usage, as well as by 24hrs pad test and the validated ICIQ score. Potency was defined using the validated IIEF-5 score. The following potential risk factors for postoperative incontinence were defined: Preoperative age, body-mass-index (BMI), adjuvant radiotherapy, adjuvant chemotherapy, tumor stage, ASA score, known metabolic disease and nerve sparing surgery. Consequently we analyzed the influence of the above stated risk factors on IIEF-5 score, ICIQ score, 24h-pad-test and the number of pads per day. Continence was defined as a maximum urine loss of 5g in the 24hrs pad test. Univariate analysis was performed using Chi<sup>2</sup> test. A p value of <0.05 was considered to be statistically significant.

### Results

Pre- and perioperative data as well as follow-up were available for 137 men that were included in the current study. Median follow-up was 59 months (min. 4 months - max. 132 months), median age was 66 years (min. 26 years – max. 83 years) and median BMI was 26.2 kg/m<sup>2</sup> (min. 17.2 – max. 44.1). Postoperative continence rate based on the 24hrs pad test was 46% (40/87) during daytime and 12% during nighttime (10/80). Social continence rate, defined as a maximum pad usage of one pad per day, was 72% during daytime and 64% during nighttime. In univariate analysis, neither BMI (p=0.611 respectively (resp.) p=0.924), adjuvant radiotherapy (p=0.414 resp. p=0.654), adjuvant chemotherapy (p=0.457 resp. p=0.903), tumor stage (p=0.749 resp. p=0.689), ASA score (p=0.359 resp. p=0.515), known metabolic disease (p=0.582 resp. p=0.871) nor nerve sparing surgery (p=0.142 resp. p=0.608) showed a significant influence on the postoperative IIEF-5 score or ICIQ score. Furthermore, no statistically significant influence of the pre-defined risk factors on the postoperative 24hrs pad test daytime or nighttime could be observed (p>0.05 each) except for a raised incontinence rate of 71% during daytime in patients with an ASA score of three or four compared to patients with an ASA score of one or two with an incontinence rate of 45% (p=0.020). In line, no statistically significant impact of the potential risk factors on the postoperative pad usage daytime or nighttime (p>0.05 each) could be observed.

### Interpretation of results

Our data show that postoperative incontinence, especially during nighttime, is a severe problem in men with ileal orthotopic neobladder. Interestingly, in the current study, nerve-sparing cystectomy did not have a positive effect on functional outcome. Our data indicate that potential patient-derived risk factors like age, BMI and adjuvant therapies seem to have a minor impact on functional outcome and therefore should not be considered contraindications for orthotopic neobladder implantation. In contrast, we suspect a multifactorial genesis of postoperative incontinence in men with ileal neobladder.

### Concluding message

Further studies with greater number of patients should be fostered for a better understanding of the potential causes of postoperative incontinence.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Retrospective analysis of data. **Helsinki:** Yes **Informed Consent:** No