Quantifying the overall survival benefit with early radical cystectomy for patients with histologically confirmed T1 non-muscle-invasive bladder cancer

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Radical cystectomy is one potential treatment option for high-grade T1 non-muscle invasive bladder cancer in the face of repeated periods of BCG-shortage.

**Aim:** To assess the overall survival in patients diagnosed with pathologically confirmed high-grade T1 NMIBC

**Data:**
- National Cancer Data Base for the period 2010-2015
- Patients diagnosed with clinically non-metastatic high grade T1 NMIBC who underwent either radical cystectomy (RC) or transurethral resection (TUR)

**Statistics:**
- Multivariable Cox proportional hazards regression analyses examining the risk of overall mortality in patients undergoing RC vs. TUR
- Subgroup analysis of patients undergoing RC with pelvic lymph node dissection (PLND) vs. without PLND
• 4,627 patients underwent surgical treatment
  - RC n=890 (19.2%)
  - TUR n=3,737 (80.8%)

| Survival rates after RC vs. TUR in patients with high-grade T1 NMIBC |
|---------------------------------|-----------------|-----------------|-----------------|
|                                 | 1-year          | 5-year          | p-value         |
| RC                              | 94.6%           | 87.0%           | <0.001          |
| TUR                             | 85.2%           | 56.0%           |                 |

• Impact of surgical treatment
  - RC vs. TUR HR 0.78, 95% CI 0.67-0.91, p=0.002

• Impact of PLND at RC
  - RC vs. TUR HR 0.55, 95% CI 0.37-0.83, p=0.005

• RC was associated with an OS benefit compared to initial local treatment
• Patients undergoing PLND at the time of RC were found to have improved OS