

Erectile Function and Cancer-Specific Survival in Patients with Bladder Cancer Undergoing Radical Cystectomy: Single-Centre Experience

Introduction and Objectives: Preservation of erectile function has been reported in 47-62% patients, undergoing radical cystectomy (RC). Aim of our study was to assess cancer-specific survival (CSS) in patients after nerve-sparing RC.

Materials and Methods: A series of 119 patients with bladder cancer (stage T1-T3a) and normal preoperative erectile function undergoing RC over the period from 1996 to 2009 year were reviewed. In Group 1, 52 patients (42.3%) with potent erectile function after RC were included (age 55.5 ± 0.7 (28-69)), while in Group 2 there were 67 (56.3%) patients with erectile dysfunction after RC (age 56.5 ± 3.0 (38-74)). Erectile function was assessed with the use of International Index of Erectile Function (IIEF) after 1-3 years postoperatively. Fisher's test using chi-square, and Student's t-test. Survival rates calculation was performed using Kaplan-Meier analysis.

Results: In Group 1 and Group 2 there were 12 patients (23.1%) and 13 patients (19.4%) with stage pT1, 14 (26.9%) and 15 (22.4%) with stage pT2a, 18 (34.6%) and 24 (35.8%) with stage pT2b, 8 (15.4%) and 15 (22.4%) with stage pT3a, respectively ($p < 0.05$ for stages pT1-T3a). In Group 1 mild erectile dysfunction was in 46.0%, moderate in 36.1%, severe in 17.9% cases. 5- and 10-years CSS rates in stage pT1 were 100% and 96% in Group 1, compared to 100% and 98% in Group 2, respectively. In stage pT2a correspondent figures were 53% and 31% in Group 1, compared to 57% and 35%, in Group 2, respectively ($p = 0.18$). In stage pT2b 5- and 10-years CSS rates were significantly lower in Group 1 (38% and 28%), compared to Group 2 (54% and 32%) ($p < 0.027$). This relationship was also seen in stage pT3a (35% vs 10% and 50% vs 21%, respectively). Local recurrence rate was significantly lower in Group 2 (2.8% (T2b-0.86%, T3a-1.94%)), compared to Group 1 (15.6% (T2b-3.7%, T3a-11.8%)) ($p < 0.05$), while distant metastasis rates were similar in both Groups (12.4% vs 13.7% ($p > 0.05$)).

Conclusions: Considering oncologic safety, nerve-sparing RC is warranted only in stages pT1-pT2a. Performing this surgical technique in stages pT2b-T3a for preserving of erectile function associated with significant reduction of CSS and increased risk of local recurrence.