Survival of Bladder Cancer Patient Undergoing Radical Cystectomy Depending on Methods of Intestinal Sewing

Introduction and Objectives: Our aim was to assess the relationship between early postoperative complications and survival rates in patients undergoing RC depending on urine derivation type and methods of intestinal sewing.
Materials and Methods: A series of 240 patients with bladder cancer undergoing RC with urine derivation over the period from 1995 to 2010 year were reviewed. In 75 patients (31.2%) (age 56.6±3.0 (42–74)) in Group 1 hand-sewn intestinal anastomosis was performed in two-layer fashion, while in 165 (68.8%) patients (age 57.0±0.8 (31–78)) intestinal anastomosis was made using intestinal sewing device. In 36 patients (48.0%) and 39 patients (52.0%) in Group I, 57 patients (34.5%) and 108 patients (65.5%) in Group II, large and small bowel anastomosis was performed, respectively. Fisher's test using chi-square, and Student's t-test was used for comparing our data. Survival rates calculation was performed using Kaplan-Meyer analysis.
Results: In Group 1 postoperative mortality rates (1 month) were significantly higher, compared to Group 2 (7.6% vs 2.4%, ($p<0.05$)). Early postoperative complications, associated directly to applied method of intestinal anastomosis was seen in 17 (22.6%) and 15 (9%) patients, respectively. There was no significantly difference in early postoperative complications rates between large and small bowel anastomoses. In Group 1, we noted significantly higher incidence of anastomosis leak, peritonitis and bowel eventration, compared to Group 2 (10 (13.3%) and 3 (4%) vs 4 (2.4%) and 2 (1.2%), respectively ($p<0.02$)). Thirteen patients (76.4%) and 4 patients (26.6%) died during the 5-years follow-up period in Group 1 and 2, respectively ($p<0.05$), while 41.1% patients and 6.6% patients died 1 month postoperatively ($p<0.05$). In Group 1 and Group 2 patients with early postoperative complications overall life longevity was decreased by 47% and 23%, respectively, compared to patients with no such complications. In Group 1 and 2 we found a significant difference in overall survival rate (17% vs 80%, respectively, $p<0.001$).
Conclusions: Applying intestinal sewing apparatus for performing intestinal device, even in patients with severe co-morbidities and high operative risk can significantly decrease early postoperative complication rates. This technique makes RC safer, with corresponding increase of overall survival of patients.