

Recurrence-Free Survival After Radical Prostatectomy and Extended Pelvic Lymph Node Dissection Regarding the Number of Lymph Node Metastases

Introduction and Objectives: To assess biochemical recurrent-free survival (RFS) in intermediate and high risk prostate cancer (PC) patients after radical prostatectomy (RPE) with extended pelvic lymph node dissection (E-PLND) in subject to number of lymph node (LN) metastases revealed.

Materials and Methods: Retrospective analysis of database from 595 patients after RPE and PLND since 2006 till 2011 in our institution was performed. There were 262 consecutive (PC) patients with intermediate and high risk, who had undergone (RPE) with E-PLND, included in the study. Patients with extensive LN metastases who received adjuvant hormonal treatment were excluded from the analysis. Mean patient's age was 67.8 ± 6.47 (46-77) years; mean PSA level 14.8 ± 10.7 (1.5-79.0) ng/ml. Mean number of LN removed was 24.96 ± 7.6 (15-52). Morphological stage pT2a-T2c was verified in 146 (55.7%) patients, pT3a-T4 – in 116 (44.3%). pN0 was found in 199 (76.0%); 1 or 2 LN metastases were found in 34 (12.9%); > 2 – in 29 (11.1%) patients. Morphological Gleason score 2-4 was in 3 (1.1%) patients, 5-6 – in 129 (49.2%), 7 – in 100 (38.2%), 8-10 – in 24 (9.2%) patients. In 6 (2.3%) patients Gleason score was not assessed. Median follow-up (FU) time was 21.4 ± 15.4 (6-73) months.

Results: During FU period recurrences were observed in 74 (28.2%) patients. Recurrences were diagnosed in 33 (16.6%), 17(50%) and 24 (82.6%) patients with pN0, with 1-2 LN metastases and with > 2 metastases respectively ($p < 0.05$). Cumulative 2-year RFS was $85.4 \pm 3\%$; $44.96 \pm 10.7\%$ and $22.6 \pm 8.5\%$ in groups respectively ($p < 0.0001$). Morphological stage, Gleason score and PSA level correlated with probability of PSA relapse after operation ($p < 0.0001$).

Conclusions: RFS significantly differed in groups of patients with no metastases, 1-2 metastases and > 2 metastases revealed. Two-year RFS rate in patients with 1-2 LN metastases was 45%, thus these patients could be candidates for delayed hormonal treatment.