

Nyushko K.M., Krasheninnikov A., Alekseev B., Kaprin A.

National Medical Research Center of Radiology, Dept. of Urology, Moscow, Russia

Introduction & Objectives: Until recent years standard method of treatment of pts with very high-risk prostate cancer (vHRPCa) was radiotherapy and/or androgen deprivation therapy (ADT), but radical prostatectomy (RP) has slowly gained more importance in this context. The aim of the present study was to assess outcomes of surgical treatment of vHRPCa pts.

Materials & Methods: Retrospective analysis of database of 2255 PCa pts, undergone RP and pelvic lymph node dissection since 1998 till 2017 in single institution was performed. 292 pts have been met the vHRPCa criteria: clinical stage cT3b-cT4 or primary Gleason pattern 5 or >4 cores with Gleason score 8-10/ ISUP grading group 4 or 5. Mean PSA level was 35.9 ± 44.9 ng/ml (1-398). Clinical stage was T2b in 9 (3.1%), T2c in 55 (18.8%), T3a in 35 (12.0%), T3b in 189 (64.7%) and T4 in 4 (1.4%). Biopsy ISUP grade 1 was verified in 26 (8.8%) pts, grade 2 in 53 (18.2%), grade 3 in 37 (12.7%), 4 in 104 (35.6%), 5 in 72 (24.7%).

Results: Stage pT2a-T2c was verified in 34 (11.6%) pts, pT3a in 59 (20.2%), pT3b in 175 (59.9%), pT4 in 23 (7.9%). Morphological Gleason score was 6 in 10 (3.4%) pts, 7 (3+4) in 25 (8.6%), 7(4+3) in 46 (15.6%), 8 in 41 (14%), 9-10 in 76 pts (26%). Gleason score was not assessed in 94 (32.2) pts, who received neoadjuvant ADT. Mean number of LN removed was 28 ± 10.7 (4-59). LN metastases (MTS) were verified in 170 (58.2%) pts. After RPE 79 (27.1%) pts did not receive ADT, 213 (72.9%) pts have been administered ADT during 12 month after RPE. Median follow up time was 49.7 ± 28.2 months (3-154 months). 5-year overall survival was $96.6 \pm 2.8\%$; and 5-year cancer-specific survival: $98.7 \pm 3.2\%$. Cumulative 5-year biochemical progression-free survival was $22.1 \pm 7.3\%$ in group without ADT and $43.9 \pm 7.6\%$ in ADT group.

Conclusions: RPE could be a therapeutic option in vHRPCa pts. But significant number of pts with unfavorable morphological findings after surgery will still need adjuvant ADT. Therefore, RPE can be used in vHRPCa pts as first step of a multimodal treatment.