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Introduction & Objectives: Differences in the epidemiology, diagnosis and outcomes according to gender in patients diagnosed with nonmuscle invasive bladder cancer (NMIBC) has been widely reported. Although number of studies revealed female gender as the risk factor for disease recurrence or progression, treatment patterns of patients included into analyses remained inconsistent. Therefore, we aimed to examine the impact of gender on quality of transurethral bladder tumor resection (TURBT) and outcomes in those who were subjected to second, early (<3 months after primary TURBT) resection (reTUR) and subsequent BCG instillations due to high-risk NMIBC.

Materials & Methods: A multi-institution retrospective analysis of 519 patients with primary high-grade Ta or T1 bladder cancer was performed. Only those who were subjected to reTUR and subsequent induction BCG instillations were considered eligible for the study. Statistical analysis was done to examine the impact of gender on quality of bladder tumor resection (TURBT) (by assessing presence of muscle at primary TURBT as well as residual tumor and MIBC at reTUR), disease recurrence and progression.

Results: The quality of primary bladder cancer resection was similar between genders, such that the presence of muscle tissue in the TUR specimen was found in 78,8 % and 71,8 %, respectively, for women and men ($P = 0,25$), residual tumor at reTUR was noted in 37,8 % vs. 31 %, ($P = 0,31$) and the presence of muscle invasive disease at reTUR was observed in 8,1% vs. 6,9 %, accordingly ($P = 0,9$). The risk of recurrence as well as the risk of progression remain alike in males and in females, as 81/282 (28.7%) men and 32/85 (37.6%) women had recurrence ($p=0,15$) and 50/213 men (23,4%) and 18/82 women (21,9%) had bladder cancer progression ($p=0,9$), within the median follow-up of 19 months.

Conclusions: Presumed gender diversity in high risk NMIBC outcomes is absent when second, early resection and induction BCG are implemented. Further multicenter studies are needed to evaluate prospectively possible gender related gap.