Clinical Outcomes of Primary Versus Secondary Non-muscle Invasive Bladder Cancer

Introduction and Objective: The study aims to compare the clinical outcomes of primary and secondary non-muscle invasive bladder cancer (NMIBC).
Materials and Methods: Primary NMIBC is defined as de novo bladder urothelial carcinoma without concomitant upper urinary tract urothelial carcinoma (UTUC). Secondary NMIBC is diagnosed concomitantly with or after UTUC. We retrospectively analyzed the records of 54 patients, including 34 with primary and 20 with secondary NMIBC. Each patient with UTUC underwent radical nephroureterectomy. All patients received transurethral resection of bladder tumors and intravesical chemotherapy postoperatively. Follow-up management included urine cytology and cystoscopy. End point was time to recurrence.
Results: The primary group reported 5 cases of cTa (14.7%), 23 cases of high grade tumors (67.6%), and 7 cases of recurrence (20.6%). The secondary group reported all cases of cT1, 18 cases of high grade tumors (90%), and 6 cases of recurrence (30%). Between the primary vs secondary groups, high grade tumors reported recurrent rate as 21.7% (5/23) vs 27.8% (5/18), the recurrent bladder tumors reported as high grade was 71.4% (5/7) vs 83.3% (5/6) and the recurrence-free survival was 26.44±10.4 vs 26.85±24.6 months (p=0.22). High grade tumors reported significantly higher recurrence rate than low grade tumors. Median follow-up was 27 months. There was no significance on age or gender as clinical outcomes.
Conclusions: Patients with secondary non-muscle invasive bladder cancer may have similar recurrence-free survival but higher recurrence rate for those with primary bladder cancer.

Table 1

	Primary NMIBC	Secondary NMIBC
Number	34	20
Low grade	11(32.4%)	2(10%)
High grade	23(67.6%)	18(90%)
Recurrence in low grade	2/11(18.2%)	1/2(50%)
Recurrence in high grade	5/23(21.7%)	5/18(27.8%)
Bladder recurrence	7(20.6%)	6(30%)
Mean RFS	26.44 mo± 10.4	26.85mo± 24.6

RFS= Recurrence-free survival, mo= months