

# T03-18. Active Surveillance in Non Muscle Invasive Bladder Cancer: a Single Center Retrospective Experience



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**Introduction:** The standard treatment for non muscle invasive bladder cancer (NMIBC) is the transurethral resection of bladder tumor (TURB-T). Because of the high recurrence rate of disease, many patients undergo multiple surgery. Nevertheless TURB-T may bear the risk of complications such as bleeding, urinary tract infections, bladder perforations or urethral stricture; moreover it poses emotional and economical burden and induces additive damage to the bladder (1). Further a high number of patients are old, with several co-morbidities, giving an high risk of anesthesia complications. Finally low risk bladders cancer have a well established low risk of progression, repeated TURB-T do not reduce the risk for further tumor recurrence (2).

The Aim of Active Surveillance (AS) is to reduce the number of TURB-T throughout patients' lifetime, reducing the burden of disease related to surgery, anesthesia and hospital stay (2). To date few studies report outcomes on oncological safety of AS for NMIBC, we report our single center experience (3).

**Materials and Methods:** From September 2006 to July 2018 94 AS periods were documented in 94 patients (mean age 69,4 y; range 42 -87 years) at a second event of NMIBC. Previous pTa stage were reported in 82 patients (87%), pT1 was reported in 12 patients (13%). 23 Patients had a previous low grade disease, whilst 71 presented high grade tumors. The presence of carcinoma in situ was an exclusion criteria. AS was offered to patients with a number of lesions ranging from 1 to 6 (mean 1.7). According to the EORTC Tables, the mean risk of recurrence at 5 years was 54.5 % (range 31- 62%), whereas the mean risk of progression at 5 years was 8% (range 6-17%). The mean Charlson morbidity index of patients included was 3 (range 0 – 6). The AS was started taking into account previous pathological features, the macroscopic characteristics of lesions, patients' co-morbidities and preference in treatment. Informed consent was provided to all patients.

The follow up consisted of cytology and an in-office flexible cystoscopy for male patient and rigid endoscopy for female patients, every three months for the first year and then every six months. The criteria for termination of AS were an excessive tumor growth, the appearance of additional tumor, the changing of macroscopic features and hematuria.

**Results:** One patient was lost at follow up, another one underwent in office coagulation and a third one is waiting for the repeated TURB-T, so that we report the results concerning 91 patients. Mean period length was 18.4 months (range 3 – 64 months). The mean follow up was 40.7 months. The AS terminated for 78 patients (85.7%), 13 periods (14.3%) are still ongoing. The main reasons for termination were the appearance of additional tumors (39 patients), bleeding (18 patients), and the excessive tumor growth (17 patients), followed by the changing of macroscopic features (4 patients). Among patients that underwent a repeated TURB-T, there was disease progression in 16 patients (17.6%). No patients progressed to muscle invasive bladder cancer nor presented carcinoma in situ and all patients included in the AS are Radical Cystectomy-free.

**Discussion and Conclusions:** Disclaiming that the main limitation of this study is the retrospective design and the lack of strict inclusion criteria, it seems that AS for NMIBC could be reasonable and safe in patients with low risk tumors due to the relative low risk of progression and the absence of development of muscle invasive bladder cancer; it allows to reduce the number of hospitalization for TURB-T, delay the discomfort and morbidity and spare bladder volume loss related to repeated surgery.