

## **Efficacy of Single Shot Instillation of Doxorubicin after Transurethral Resection of Low-Risk Non-Muscle-Invasive Bladder Tumors: A Prospective Study**

**Introduction and Objectives:** We present 3 years follow-up from a prospective study of recurrence and progression after immediate intravesical instillations of doxorubicin after transurethral resection of bladder tumor (TURBT), or TURBT alone, in respectively, 56 and 37 patients who presented with a low-risk non-muscle-invasive bladder cancer (NMIBC).

**Materials and Methods:** From a total of 187 patients who underwent TURBT between April 2009 and October 2011, 93 (49.73%) (mean age 56 years-old, range: 33 to 74 years-old, 79 males and 14 females) presented with a low-risk NMIBC (pTa, low Grade, single small tumor (<3cm)). A single instillation of 50 mg of doxorubicin after TURBT was done in 56 patients (60.21%) and in the others (37 patients) no adjuvant therapy was done. Follow-up was performed by cystoscopy and urinary cytology every 3 months and every 6 months after the second year. Recurrence and progression rates and the time to first recurrence were studied for the two groups.

**Results:** With a median duration follow-up of 27 months (6 to 35 months), the recurrence rate was respectively 12.5% (in the group of doxorubicin) and 24.13 % (TURBT alone). Mean time to first recurrence was respectively 11 months (8 to 20 months) and 6 months (5 to 16 months). There was a significant difference between the two groups in the size of recurrence: mean 0.6 cm (0.3 to 1.5 cm) vs 0,9 cm (0,5 to 2,5 cm). One case in the arm of TURBT alone progressed in to a grade 3 without migration of the stage, which was treated with re-TURB and adjuvant intravesical instillations of BCG.

**Conclusion:** Single shot intravesical instillation of Doxorubicin in our series, decreased the risk of recurrence after TURB for low risk NIMBC of 11.63%. The time to first recurrence was longer and tumors were smaller than with TURB alone.