

NICSA – 5 YEARS FOLLOW-UP – ABSTRACT

Background and Objective

Transurethral resection of bladder tumors (TURBT) remains the standard treatment for non–muscle invasive bladder cancer (NMIBC) but is associated with procedural risks and healthcare burden. Chemoresection using intravesical Mitomycin C (MMC) has emerged as a minimally invasive alternative. This randomized controlled trial presents 5-year follow-up data evaluating long-term outcomes of MMC chemoresection versus standard surgical management in patients with intermediate- and high-risk NMIBC.

Methods

From 2018 to 2024, 120 patients with recurrent Ta low-grade or high-grade NMIBC and >1 papillary tumor <2 cm were randomized 1:1 to receive either short-term, intensive chemoresection (6 MMC instillations over 2 weeks) or standard care with TURBT/biopsy followed by adjuvant instillations with a 5-year follow-up. Primary endpoints were the number of procedures (TURBT or biopsy/fulguration) and recurrence-free survival (RFS).

Key Findings and Limitations

Fewer patients in the intervention group underwent TURBT (64% vs. 89%, $p = 0.003$), and more avoided procedures entirely (17% vs. 0%, $p = 0.002$). Non-responders shifted from TURBT to office-based procedures ($p = 0.03$). At 5 years, RFS was 14% vs. 28% ($p = 0.3$), with better RFS in patients with fewer baseline tumors ($p = 0.012$). Findings are limited by few high-grade tumors at baseline.

Conclusions and Clinical Implications

Chemoresection reduces the need for surgical procedures in patients with recurrent NMIBC without compromising long-term oncological outcomes. These findings support its integration as a less invasive treatment option in selected patients.