The Efficacy of Prulifloxacin for the Management of LUTS in Patients Receiving Intravesical BCG for Non-Muscle Invasive Bladder Tumors

Introduction and Objective: Non-muscle invasive transitional cell carcinoma (TCC) of the bladder (T1 and Cis) is usually treated with transurethral resection of bladder tumors (TURBT) followed by intravesical instillations of chemotherapeutic or immunotherapeutic agents. BCG immunotherapy has been proven effective in reducing recurrences and, to a lesser extent, progression to muscle invasive disease. However, its use has been associated with predominantly irritative lower urinary tract symptoms (LUTS). This study assessed the efficacy of prulifloxacin in ameliorating the degree of irritative bladder symptoms following intravesical BCG in patients with non-muscle invasive TCC of the bladder.
Materials and Methods: We studied 36 men and women (52-78 years of age) with newly diagnosed non-muscle invasive TCC of the bladder following TURBT. Histopathology revealed high grade, non-muscle invasive tumors and/or Carcinoma in Situ (T1G1-3, CIS) in all patients. Patients were received intravesical instillations of BCG for an introductive 6 week course, with repeat 3-week instillation at months 3, 6 and 12. IPSS scores were submitted prior to the start of the BCG induction course and at the end of the 6 week course. Patients were divided: group A (n=18) prophylactically received 600 mg of prulifloxacin for 3 days after each BCG instillation; group B (n=18) received no prophylactic antibiotic treatment. The differences in LUTS (mirrored in the IPSS scores and the rates of febrile urinary tract infections) were recorded in both groups.
Results: Patients in both groups showed a deterioration of LUTS with an increase in IPSS scores from baseline at the end of the 6 week BCG course. However, this increase was smaller in group A (IPSS 11,5-13/ 13% change) than group B (IPSS 12,5-16/ 28% change); $p<0,0001$ in the x2 test). There were no differences between the two groups regarding the rate of episodes of cystitis or febrile urinary infection with positive urine culture. No episodes of BCG-induced sepsis were recorded in either group.
Conclusion: The prophylactic administration of prulifloxacin in patients with non-muscle invasive TCC of the bladder appears to decrease the severity of irritative LUTS frequently encountered following BCG instillations. This treatment might, therefore, ameliorate bothersome LUTS and increase treatment compliance in this setting.