

Outcome of Initial Treatment with Bacillus Calmette-Guérin for Carcinoma in situ of the Upper Urinary Tract

Introduction and Objective: To assess appropriate treatment strategies for transitional cell carcinoma in situ (CIS) of the upper urinary tract (UUT), we evaluated the outcome of Bacillus Calmette-Guérin (BCG) therapy for CIS of UUT.

Materials and Methods: We retrospectively reviewed the medical records of 9 patients with 10 renal units who underwent BCG instillation therapy for CIS of UUT between 2004 and 2011. After placing a 6-french Double-J stent, BCG (81 mg) in 40 ml saline was instilled into the bladder weekly for 8 patients. One patient who underwent radical cystectomy and ileal conduit for bladder cancer received BCG perfusion therapy with single J stent. Patients received at least one course of BCG (once weekly for 6 weeks).

Results: The median follow-up period was 34.9 months (range 2-84 months). In all patients, cytology became negative after one course of BCG therapy and 7 patients (68.6%) remained disease-free for a median follow-up of 34.9 months. In one patient for whom renal parenchyma recurred with negative cytology, nephroureterectomy was performed. Histopathology showed invasive tumor (pT3) with lymph node positive. This patient received chemotherapy and has no metastasis for more than two years. Another patient had a small tumor recur in the bladder and received transurethral coagulation after 21 months. All patients are alive with no evidence of disease.

Conclusion: BCG therapy is effective for the treatment of CIS of UUT. However, in cases with a poor response or recurrence of CIS, there may be a high risk of developing invasive tumor. Surgical intervention should be immediately considered in such cases after the first course of BCG therapy.