

Assessment of Lower Urinary Tract Symptoms after Bacille Calmette-Guérin Instillation Therapy for Non-Muscle-Invasive Bladder Cancer

Introduction and Objective: Recent studies have shown that intravesical Bacille Calmette-Guérin (BCG) instillation therapy is effective in suppressing recurrence and progression of high-risk non muscle-invasive bladder cancer (NMIBC)¹. However, it is well known that many patients could not complete their full regimen due to side effects². We examined (1) the lower urinary tract symptoms (LUTS) in NMIBC patients during BCG therapy and (2) the relation between LUTS and the incompleteness of the therapy.

Materials and Methods: Fifty NMIBC patients (male; 38, female; 12) were enrolled; 30 received BCG (Immunocyst® 81mg/ week) instillation therapy (Group A), and remaining 20 received no adjuvant therapy as control (Group B). Assessment items were 1) LUTS questionnaires (I-PSS, OABSS) and 2) uroflowmetry and post-void residual (PVR). Both groups were assessed at 1, 3 and 6 months after TUR-Bt. We compared the parameters between Group A and B. Moreover, we analyzed the data in relation to the discontinuation of the BCG maintenance therapy.

Results: Twenty-two out of 30 patients were recurrence free and could be observed over 6 months. (1) OABSS score improved at 3, 6 months after TUR-Bt in Group B, which shows the natural LUTS change after TUR-Bt. OABSS scores remained high even at 6 months after TUR-Bt in Group A. (2) BCG therapy completed in 50% (11/22) patients in our follow-up period (median: 10 months). The causes of incompleteness of the therapy were bladder irritability in 7 cases and general malaise in 5 cases, with one suffered from both. In the patients with BCG incompleteness, the I-PSS storage symptom score, QOL score, and daytime frequency and urgency scores of the OABSS were significantly higher than in the patients with BCG completion at 6 months after TUR-Bt. There were no significant changes in uroflow parameters and PVR in all patient groups.

Conclusions: This is the first report that revealed LUTS after TUR-Bt and during BCG instillation therapy. Questionnaires for LUTS may be useful in making decision whether the patients could continue BCG therapy or not.

References:

- (1) Sylvester RJ *et al.* *J. Urol.* 2002; **168**: 1964–70.
- (2) Lamm DL *et al.* *J. Urol.* 2000; **163**: 1124–9.