Clinical Impact of Anti-Platelet Medication in Patients with Non-Muscle Invasive Bladder Cancer Treated with BCG Therapy

Introduction and Objective: Non-muscle invasive bladder cancers (NMIBC) with high risk factors are usually treated by transurethral bladder tumor resection (TUR-BT) and Bacille Calmette-Guérin (BCG) intravesical therapy. Anti-platelet medication may be associated with a bleeding tendency, and administration of these drugs may affect the risk of gross hematuria, which is one of the most frequent side effects seen during BCG therapy. The aim of the present study was to evaluate whether anti-platelet medication had an influence on the response to BCG and incidence of gross hematuria.
Materials and Methods: Of 447 cases who underwent BCG therapy following TUR-BT for NMIBC between 1981 and 2005 at our institution, we identified 164 cases whose data concerning medications administered were available. The associations between clinicopathological parameters, including the administration of anti-platelet drugs and outcomes, were analyzed. The median follow-up period was 4.2 years.
Results: A total of 68 patients experienced bladder cancer recurrence during follow-up. Twenty-eight cases (17.1%) were administered anti-platelet drugs during their follow-up. Fifty-nine cases (36.0%) experienced gross hematuria during BCG therapy, and 10 of 59 were administered anti-platelet drugs. In univariate and multivariate analyses, the administration of anti-platelet drugs was not significantly associated with the incidence of gross hematuria ($p=0.942$), and no variable could significantly predict this side effect in our population. We then examined whether the administration of anti-platelet drugs would affect subsequent outcomes. Kaplan-Meier curves of recurrence-free survival rates did not show any significant difference between anti-platelet administration and no administration ($p=0.603$).
Conclusions: The administration of anti-platelet drugs may not significantly affect NMIBC outcomes, including the incidence of gross hematuria and subsequent disease recurrence, in patients treated with BCG therapy.