Combined Chemotherapy with Gemcitabine and Carboplatin for Metastatic Urothelial Carcinomas in Patients with High Renal Insufficiency

Introduction and Objectives: This was a retrospective study to evaluate the activity and toxicity of a combined chemotherapeutic regimen of gemcitabine and carboplatin (GCa) in patients with metastatic urothelial carcinomas (UCs) with special regard to patients with highly impaired renal function.
Materials and Methods: Eleven patients whose creatinine clearance was 30 ml/min or under and had been diagnosed with metastatic UC were treated with GCa. The patient cohort included 4 males and 7 females, with a median age of 74 (range 67-84) years. The median follow-up was 32 (range 10-58) months.
Results: Five of the 11 patients (45%) showed an objective response, with 2 achieving a clinically complete response (CR) and 3 a partial response (PR) with GCa. The median overall survival was 19 months. The grade 3/4 toxicity of the regimen was primarily hematological, including anemia (55%), neutropenia (45%), and thrombocytopenia (45%). Four patients (36%) could not complete the treatment in total. Grade 3 pneumonitis was found in one patient, and the treatment was terminated on Day 9 of the 3rd cycle. Grade 4 febrile neutropenia occurred in the patient on hemodialysis, and the patient was forced to discontinue the chemotherapy. Another 2 patients also called off the treatment due to a pulmonary adverse event and an elevation of serum creatinine, respectively.
Conclusions: GCa appears to be effective for the treatment of metastatic UCs in patients with impaired renal function, but it is necessary to pay attention to the occurrence of severe adverse events.