

The Evaluation of New Pathological Prognostic Factors in Urothelial Carcinoma: Is the Prognosis of Pathological T3 Different Between Renal Pelvis and Ureteral Tumor?

Introduction and Objective: 2010AJCC/TNM classification defined the urothelial carcinoma in both renal pelvis and ureter as a group. Some literatures reported the prognosis of renal pelvic carcinoma had better than of ureteral carcinoma. They suggested renal parenchyma had the functional barrier for cancerous infiltration. This study considered the difference between the urothelial carcinoma of renal pelvis and ureter, and some factors related to prognosis and pathological stage.

Materials and Methods: This study was a retrospective study. We performed nephroureterectomy with the resection of bladder cuff for 508 patients (renal pelvic tumor: 274 cases, ureteral tumor: 334 cases) in Nagoya University between 1998 and 2010. We excluded the case of tumor existing in both. The factors of each patient (gender, symptoms, urine cytology, remaining ureteral orifice, surgical technique etc) and pathological factors (pathological stage according to the 2010AJCC/TNM classification, lymph node, recurrence, tumor site, morphology etc.) were recorded. Two uro-pathologists who masked clinical information reviewed all specimens. In renal pelvic carcinoma, we reclassified pathological stage 3 to pT3a (invasion to renal medulla) and pT3b (invasion to renal cortex and peripelvic fat).

Results: We showed Kaplan-Meier curve of the renal pelvis and ureter cancer. Ureteral cancer was obviously a bad prognosis. (Figure 1). The prognosis of pathological T3a in renal pelvis had better than of pT3b (invasion to renal cortex and peripelvic fat). The cancer specific survival of ureteral carcinoma was extremely similar to of pathological T3b in renal pelvic carcinoma.

Conclusions: We reclassified renal pelvic tumor to two groups (pT3a and pT3b). In pathological T3 stage, both the prognosis of pT3b renal pelvic tumor and pT3 ureteral carcinoma was worse than the prognosis of pT3a.

