Tumori, 93: 68-74, 2007

CHARACTERISTICS OF METASTASIS AS A PROGNOSTIC FACTOR FOR IMMUNOTHERAPY IN METASTATIC RENAL CELL CARCINOMA

Cheol Kwak[1], Yong Hyun Park[1], Chang Wook Jeong[1], Hyeon Jeong[1], Sang Eun Lee[1], and Ja Hyeon Ku[2]

[1]Department of Urology, Seoul National University College of Medicine, Seoul; [2]Department of Urology, Seoul Veterans Hospital, Seoul, Korea

Aims and background: **This study aimed to evaluate the significance of characteristics of metastasis as prognostic factors in metastatic renal cell carcinoma (RCC).**
Patients and methods: **A total of 148 patients who had received immunotherapy were included in the study. Patients were categorized in various ways according to the characteristics of metastasis, including a synchronous metastasis group (n = 77) *vs* a metachronous metastasis group (n = 71), and a solitary metastasis group (n = 93) *vs* a multiple metastases group (n = 55).**
Results: **In the synchronous and metachronous metastasis groups, median progression-free survival was 4.3 months (95% confidence interval [CI] 2.9-5.7) and 11.1 months (95% CI 6.7-15.5), respectively (*P* = 0.004). Median overall survival was 17.1 months (95% CI 9.5-24.7) and 54.8 months (95% CI 38.3-71.3) in the two groups (*P* = 0.019). In the solitary and multiple metastasis groups, median progression-free survival was 11.0 months (95% CI 6.6-15.5) and 3.9 months (95% CI 2.6-5.2), respectively (*P* <0.001). Median overall survival was 55.2 months (95% CI 50.7-59.7) and 15.6 months (95% CI 10.9-20.3) in the two groups (*P* <0.001). Multivariate Cox proportional hazards model analysis using the clinical variables showed that T stage (*P* = 0.026), number of metastatic sites (*P* = 0.009) and time to metastasis (*P* = 0.019) were independent predictors of progression-free survival. Using the same variables, only the number of metastatic sites was an independent prognostic predictor of overall survival (*P* = 0.014).**
Conclusions: **Our findings suggest that the time to metastasis and the number of metastases are important prognostic factors in metastatic RCC.**

Key words: immunotherapy, metastasis, prognosis, renal cell carcinoma.

Correspondence to: Ja Hyeon Ku, MD, PhD, Department of Urology, Seoul Veterans Hospital, 6-2, Doonchon Dong, Kangdong Ku, Seoul 134-791, Korea. Tel +82-2-22251392; fax +82-2-4834260; e-mail randyku@hanmail.net

Received June 21, 2006; accepted September 22, 2006.