Predictive value of maspin and Ki-67 expression in transurethral resection specimens in patients with T1 bladder cancer

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ABSTRACT

Aims and background. To evaluate the clinical significance of maspin and Ki-67 expression in patients with newly diagnosed T1 bladder cancer.

Methods and study design. Maspin and Ki-67 expression was investigated by immunohistochemistry from paraffin-embedded tissues of 68 patients undergoing transurethral resection for bladder cancer. Clinicopathological data were retrospectively reviewed from available charts and pathological reports. Maspin and Ki-67 expression levels were classified according to the staining percentage. Cases in which at least 5% of the tumor cells stained for maspin were scored as positive. Ki-67 labeling index was considered to be positive when samples demonstrated >10% reactivity.

Results. Maspin expression was found as an independent predictor of recurrence and progression (P <0.05). Patients with negative maspin expression were 2.191 times more likely to relapse than patients with positive maspin expression. Patients with negative maspin expression were 4.345 times more likely to progress than patients with positive maspin expression. Furthermore, the maspin-negative group was found to have shorter recurrence and progression-free survival (P <0.05). No significant association was found between maspin subcellular localization pattern and recurrence-free, progression-free or overall survival (P >0.05). There was no correlation between Ki-67 expression and tumor recurrence, progression or tumor-related death (P >0.05). Chi-square tests showed a significant relationship between Ki-67 expression and tumor size and tumor grade (P <0.05).

Conclusions. Our findings suggested that the evaluation of maspin expression in stage T1 bladder tumors is a useful prognostic marker for predicting the tumor behavior.