

## **Perineural invasion and grade of differentiation have prognostic significance in gall bladder cancer after surgery**

Myung Ah Lee, Eun-Seon Chung, Jin-Hyoung Kang, Young-Seon Hong, Hoo Geun Chun

*Department of Medical Oncology, Catholic University, Korea*

### Background

We investigated ERCC1, survivin, Thymidine phosphorylase (TP) and pathologic parameters to determine the prognostic and predictive value in gall bladder cancer after surgery.

### Method

We performed immunohistochemical staining for ERCC1, survivin, TP, p53, and cyclin D1 in formalin-fixed, paraffin-embedded block from 73 duct cancer tissues. To determine the association with pathological characteristics and clinical course, we reviewed the patients' clinical record.

### Result

Of the 73 cases of gall bladder cancer, most common histology type was moderate differentiated adenocarcinoma (45.2%). Female was more common (M: F=33:40) and the median age was 62. 54.8% of cases showed positive expression in TP, 43.8% in p53, 27.4% in survivin, 24.7% in ERCC1 and 23.3% in cyclin D1. There was no statistically significant association between survivin, ERCC1, thymidine phosphorylase (TP), p53, cyclin D1 expression and survival outcome. For pathological parameters, negative lymphatic invasion showed less recurrence rate ( $p=0.033$ ). The group with well differentiation histology and negative perineural invasion showed better survival outcome ( $p<.0001$  and  $p=0.027$ , respectively).

### Discussion

No protein examined showed prognostic significance, but perineural invasion, lymphatic invasion, and grade of differentiation had correlation with recurrence and survival outcome. These pathologic parameters may have potential as a prognostic marker in gall bladder cancer.