

Significances of Adhesion Molecules and Catenins in Gastric Cancer

고려대학교 의과대학 외과학교실, ¹병리학교실

Sung-Soo Park, Jong-Han Kim, Ju-Han Lee¹, Yang-Seok Chae¹,
Seung-Joo Kim, Chong-Suk Kim, Young-Jae Mok

Purpose: The aims of this study were to reveal level of expression for cell-adhesion molecules (E- and LI- cadherins) and related proteins (α - and β -catenins) in human gastric cancer and clarify their unique points for clinical application.

Methods: The specimens were obtained from 208 patients who underwent surgical treatment for histologically proven gastric adenocarcinoma at the Department of Surgery, Korea University College of Medicine, from January 2001 to December 2002. Paraffin- embedded tissue sections were immunohistochemically stained for the E- and LI- cadherins, and α - and β -catenins. Their expressions of the tumor cells were evaluated according to the proportion of positively stained cells; positive (when over 10% of the carcinoma cells were positively stained) and negative (fewer than 10% of the carcinoma cells were positively stained).

Results: E-cadherin was associated only with tumor histology. α -catenin was significantly correlated with gender, tumor histology and depth of invasion. β -catenin was associated with gender and tumor histology. LI - cadherin expression was correlated with many important clinicopathological factors in univariate analysis. However, multivariate analysis revealed LI-cadherin was independent factor for tumor histology ($p=0.002$) and lymph node metastasis ($p=0.001$). Except tumor histology, E-cadherin and α - and β - catenins were not statistically significant in multivariate analysis.

Conclusion: Histologic type was closely related to all of the proteins. From a clinical point of view, no proteins but LI-cadherin is suitable to give more information than conventional prognostic factors. This study demonstrated LI-cadherin exclusively disclosed local tumor characteristics related to invasion and metastasis. Further studies will be needed to clarify LI- cadherin's clinical utilities for gastric cancer management.