論　文　要　旨

Expression of MUC4 Mucin Is Observed Mainly in the Intestinal Type of intraductal Papillary Mucinous Neoplasm of the Pancreas

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OBJECTIVES:
This study aimed to examine expression profile of MUC4 in intraductal papillary mucinous neoplasm of the pancreas (IPMN).
METHODS:
We performed immunohistochemistry (IHC) of MUC4 in 142 IPMNs, with evaluation of the specificity of 2 anti-MUC4 monoclonal antibodies, 8G7 and 1G8, in cancer cell lines.
RESULTS:
Monoclonal antibody 8G7 showed a clear immunoreactivity, whereas MAb 1G8 did not show any immunoreactivity, in the Western blotting and IHC for human pancreatic carcinoma cell lines expressing MUC4 messenger RNA. However, IHC signals detected by both monoclonal antibodies were observed in the tissue specimens. The expression rates of MUC4/8G7 detected by MAb 8G7 and MUC4/1G8 detected by MAb 1G8 in the intestinal-type IPMNs were significantly higher than those in the gastric-type IPMNs. In the intestinal-type IPMNs, MUC4/8G7 was expressed mainly in the cytoplasm of the neoplastic cells, whereas MUC4/1G8 was expressed mainly at the cell apexes. Even in the gastric-type IPMNs with rare MUC4 expression in the low-grade dysplasia, both MUC4 expression rates increased when dysplasia advanced.
CONCLUSIONS:
A significantly higher expression of MUC4 in intestinal-type IPMNs than in gastric-type IPMNs will be one of the biomarkers to discriminate between the intestinal-type IPMNs with high malignancy potential from gastric-type IPMNs with low malignancy potential.