

Expression of two CD44 variant proteins (v3 and v6) in human colorectal carcinoma and its relevance for prognosis

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Abstract

AIM: To evaluate the expression of CD44v3 and v6 protein in colorectal carcinoma and its prognostic significance.

METHODS: One hundred and twenty-one cases of formalin-fixed paraffin-embedded colorectal carcinoma specimens were retrospectively analyzed using Envision-TM immunohistochemical method with the monoclonal antibody CD44v3 and v6. The median follow up time was 67.77 mo and the prognostic value of the CD44v3 and CD44v6 was assessed using univariate and multivariate survival analysis.

RESULTS: The positive rates of CD44v3 and v6 protein were

60.3% and 57.9%, respectively. There was significant correlation between CD44v3 immunoreactivity and tumor location, lymph node metastasis, distant metastasis and Duke's stage ($P < 0.05$, Spearman correlation test). Significant correlation between CD44v6 immunoreactivity and patients' gender, lymph node metastasis, distant metastasis, Duke's stage was also noticed ($P < 0.05$, Spearman correlation test). The 5-year survival rates were 81.25% and 60.27% in CD44v3 negative and positive cases, respectively. As CD44v6, the 5-year survival rates were 80.39% and 60.00% in CD44v6 negative and positive cases, respectively; these differences between the two groups of patients were significant ($P < 0.05$, Log-rank test). In multivariate analysis using the Cox regression model, CD44v3 expression emerges as an independent prognostic indicator.

CONCLUSION: CD44v3 and v6 might play some important roles in metastasis of colorectal carcinoma, and CD44v3 expression might be a new useful independent prognostic marker of colorectal carcinoma.

Key words: Colorectal neoplasms; CD44v3; CD44v6; Metastasis; Prognosis; Immunohistochemistry

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