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Titel des Beitrags:
Prognostic evaluation and review of immunohistochemically detected disseminated tumor cells in peritumoral lymph nodes of patients with pN0 colorectal cancer.

Abstract:
BACKGROUND: The value of immunohistochemical detection of disseminated tumor cells in histopathologically tumor-free lymph nodes (pN0) of patients with colorectal cancer is still of uncertain prognostic value. We therefore evaluated the immunohistochemical detection rates and their prognostic value comparing three different monoclonal antibodies.
METHODS: A total of 170 lymph nodes of 85 patients with curatively resected colorectal carcinoma at UICC stage I or II were evaluated for disseminated tumor cells. Frozen sections of each lymph node were immunohistochemically stained using three antibodies directed against CEA, CK20, and Ber-EP4. The detection rates were compared with histopathological tumor parameters and with the patient’s survival. The median follow-up time was 86 months.
RESULTS: CEA-, CK20-, and Ber-EP4-positive disseminated tumor cells were identified microscopically in lymph nodes of 23 patients (27%), 24 patients (28%), and 23 patients (27%), respectively. In 18 patients (21%) disseminated tumor cells were found in consecutive sections and stained positive for all three monoclonal antibodies. The lymph nodes of 10 of 18 patients (56%), which developed tumor recurrence, contained CEA- and CK20-positive disseminated tumor cells. Ber-EP4-positive cells were present in lymph nodes of 9 of 18
patients (50%) with tumor recurrence. The 5-year overall survival of the 23 patients with CEA-positive disseminated tumor cells was 72% compared to 91% of the patients without immunohistochemical evidence of tumor cells (p<0.01). While the identification of CK20-positive tumor cells was also correlated significantly with a worse overall patient survival (p<0.01), the application of Ber-EP4 failed to reach significance (p=0.057). Multivariate analysis identified the tumor site (colon versus rectal cancer) (p<0.006) and the presence of CEA-positive disseminated tumor cells (p<0.03) as independent prognostic factors. CONCLUSION: In colorectal carcinoma, the immunohistochemical detection of disseminated tumor cells in histopathologically pN0 peritumoral lymph nodes allows the identification of a subgroup with a significantly worse prognosis. Nevertheless, the prognostic value of immunohistochemically detected disseminated tumor cells remains controversial due to the nonuniform data in the literature.