学位論文の要旨

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主論文の題名

Soluble CXCL16 in Preoperative Serum is a Novel Prognostic Marker and Predicts Recurrence of Liver Metastases in Colorectal Cancer Patients

主論文の要旨

PURPOSE: This study was designed to identify novel and reliable serum prognostic markers in patients with colorectal cancer (CRC).

METHODS: Based on cytokine array analysis, we identified soluble CXCL16 as a novel prognostic serum marker. Serum levels of CXCL16 were assessed in 314 CRC patients and 20 normal volunteers by enzyme-linked immunosorbent assay. Proliferation, invasion, and wound healing assays were used to investigate the biological role of soluble CXCL16 in CRC cells.

RESULTS: Elevated serum CXCL16 level was significantly associated with poor survival and was an independent prognostic marker in CRC patients. Furthermore, in stage I-III CRC patients who underwent curative intent surgery, elevated serum CXCL16 levels were significantly associated with metachronous liver recurrence and poor survival. Recombinant soluble CXCL16 promoted the epithelial-mesenchymal transition (EMT) phenotype characterized by impaired E-cadherin production and induction of vimentin in vitro. In addition, recombinant soluble CXCL16 promoted cell growth, migration, and invasion in a CRC cell line.

CONCLUSIONS: In this study, preoperative high serum levels of CXCL16 were associated with metachronous liver recurrence and poor prognosis in CRC patients. Soluble CXCL16 may play an important role in liver metastases through the induction of EMT.