Clinical relevance of matrix metalloproteinase-13 determined with a new highly specific and sensitive ELISA in ascitic fluid of advanced ovarian carcinoma patients.

Matrix metalloproteinases (MMPs) are involved in many physiological and pathophysiological processes, including tumor cell invasion and metastasis. For one member of this family, MMP-13 (collagenase-3), a new, highly specific ELISA with a sensitivity of 0.5 ng MMP-13/ml was established. The protein levels of MMP-13 in ascitic fluids of 30 patients with advanced ovarian cancer FIGO stage III (n = 19) and IV (n = 11) were measured with this ELISA. Using a cut-off value of 0.5 ng MMP-13/mg total protein, two patient subpopulations with short (median 16 months) and long (median 36 months) overall survival were identified. Together with other prognostic markers, determination of MMP-13 in ascitic fluid may help to identify patients at risk for early death and help to individualize adjuvant therapy.