Expression of A disintegrin and metalloprotease 10 in pancreatic carcinoma.

The protease ADAM10 influences progression and metastasis of cancer cells and is overexpressed in various malignancies. Therefore, the aim of our study was to evaluate the expression and potential function of ADAM10 in the pathophysiology of pancreatic cancer (PDAC). ADAM10 expression in normal pancreatic (NP), chronic pancreatitis (CP), PDAC tissues, as well as PDAC cell lines was determined. To evaluate whether rhADAM10 or ADAM10 silencing influences cancer cell viability, MTT assay was used. Matrigel invasion and wound healing assays were performed to observe influence on invasion and migration. ADAM10 mRNA was expressed in all samples of NP, CP and PDAC tissue and cell lines. Western blotting and immunohistochemistry revealed stronger ADAM10 expression in PDAC than in NP. ADAM10 silencing or rhADAM10 had no effect on cell viability. ADAM10 silencing markedly reduced invasiveness and migration of cancer cells. These findings establish ADAM10 as a contributing factor in PDAC invasion and metastasis.