Helicobacter pylori in autoimmune pancreatitis and pancreatic carcinoma.

Abstract:
BACKGROUND: Helicobacter pylori has been suggested to be involved in pancreatic diseases, namely autoimmune pancreatitis and pancreatic carcinoma. We investigated the presence of conserved sequences of Helicobacter in pancreatic tissue and pancreatic juice from patients with chronic nonautoimmune and autoimmune pancreatitis as well as pancreatic ductal adenocarcinoma (PDAC).

METHODS: 35 pancreatic juices collected during routine endoscopic retrograde cholangiopancreatography and 30 pancreatic tissues were studied. Nested PCR was used to detect H. pylori in the isolated DNA samples. In order to exclude a methodological bias, the samples were analyzed blindly in 2 different laboratories using either conventional or LightCycler PCR for H. pylori urease A and 16S ribosomal DNA.

RESULTS: In the pancreas of 11 patients with autoimmune pancreatitis, no H. pylori DNA could be detected. Further, in none of the other tissue samples of chronic pancreatitis or PDAC could we detect any Helicobacter sequences. Out of the pancreatic juice samples, none demonstrated either of the 2 Helicobacter gene sequences investigated.

CONCLUSION: Despite good scientific reasoning for an involvement of Helicobacter in pancreatic diseases, a direct infection of the microbial agent seems unlikely.
Rather, the pathomechanism must involve molecular mimicry in autoimmune pancreatitis, or the transformation of nitric food constituents to nitrosamines in pancreatic cancer. and IAP.