CORRESPONDENCE

Pancreatic Pseudocysts: Observation, Endoscopic Drainage, or Resection?

by Prof. Dr. med. Markus M. Lerch, Prof. Dr. med. Albrecht Stier, PD Dr. med. Ulrich Wahnschaffe, Prof. Dr. med. Julia Mayerle in volume 38/2009

Course and Pathogenesis

The distinction between acute and chronic pancreatic pseudocysts according to the Atlanta classification (2) is confusing, if “the definition of chronicity is based, not on the age of the cyst, but rather on the underlying illness”(1). According to this article, acute pancreatic pseudocysts arise from acute pancreatitis and chronic pseudocysts to chronic pancreatitis. This may sound semantically plausible, but pathogenetically it is controversial. Further to rare traumatic causes, pancreatic pseudocysts are usually due to enzymatic necrotic episodes in the context of acute and/or chronic pancreatitis—in both types of pancreatitis, acute pseudocysts are always present, showing a delicate wall consisting of detritus, resorptive inflammation, and new granulating tissue. The subsequent reparative inflammation leads to a dense wall in the pseudocysts consisting of mature collagenized granulating tissue with fibrosis as an indicator of a chronic pseudocyst. Chronic pseudocysts can therefore develop subsequently to acute as well as chronic pancreatitis (with an acute episode)—without initial enzymatic necrosis, no pseudocyst will develop!

In addition to the listed traditional complications associated with pseudocysts (1), an earlier observation is worth sharing (3). A shipbuilder developed a pancreatic pseudocyst subsequent to trauma; this pseudocyst had eroded the inferior vena cava and to flushing of enzymes into the blood circulation. Extremely raised pancreatic enzymes in the serum triggered necrotizing panniculitis and enzymatic bone necroses with secondary polyarthropathy and secondary sepsis (3). Such disease courses can occur on rare occasions subsequent to pancreatitis and in acinar cell cancers of the pancreas.

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In Reply:

We thank Prof. Nizze for his valuable comments to our article. The Atlanta classification does indeed distinguish between pseudocysts on the basis of the underlying disease (acute or chronic pancreatitis). With regard to the prognosis this makes sense because the rate of regression in pseudocysts is high in acute pancreatitis and practically non-existent in chronic pancreatitis. Therapeutically, however, chronic pseudocysts can be dealt with very easily by means of endoscopic drainage, whereas the treatment of acute pseudocysts is burdened with complications and often includes or even necessitates endoscopic necrosectomy. Pathogenetically and with respect to the morphology on imaging studies or histopathology, the current Atlanta classification is rather less helpful, as Prof. Nizze points out. An upcoming revision of the Atlanta classification is going to address this shortcoming. This guideline will explicitly include morphology, and it is due to be published as an international consensus statement in the coming months. Since a consensus has not yet been reached and appears more difficult than anticipated, we were not able to include the new classification in our recent review article.

Panniculitis—as mentioned by Prof. Nizze—as well as other systemic complications associated with extra-pancreatic activity of digestive enzymes occasionally occur in acute pancreatitis and more rarely in chronic pancreatitis. In individual cases, this complication has been observed in association with acinar cell carcinoma. In our experience, the incidence—48 cases reported in the literature to date—is way below 1/1000 cases of pancreatitis. For this reason, we did not include it as a typical complications of chronic pancreatitis in our review article. In addition to treating the underlying morbidity, administration of octreotide (1) results in inhibition of pancreatic secretion and thus provides a strategy for reducing lytic, extrapancreatic necroses.

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Conflict of interest statement

The authors of both contributions declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.