## **Letters to the Editor**

# Thoracic pseudocyst of pancreatic origin with cervical involvement

Key words: Pancreatic pseudocyst. Cervical pseudocyst. Chronic pancreatitis.

#### Dear Editor,

Pancreatic pseudocysts often occur in the setting of acute or chronic pancreatitis. Their usual location is the abdominal cavity, surrounding the pancreas. Less commonly, they can spread into the thoracic cavity as an esophago-pleural fistula or as a true mediastinal pseudocyst (1,2). Very uncommon, however, is the existence of communication with the cervical region (2-4).

#### Case report

We report the case of a 59-year-old man with antecedents of alcoholic chronic pancreatitis admitted because of respiratory failure. A right pleural effusion was shown after physical examination and chest X-ray. After diagnostic thoracocentesis the patient had dyspnea, superior vena cava syndrome and mediastinal widening, observed on a second chest X-ray. A large thoracic fluid collection was found on CT with no pathological findings in the abdomen (Fig. 1). It was drained by means of a thoracic tube. The fluid had high amylase concentration (104,000 U/ml). An area of swelling also appeared in the neck and, after stab incision, an amylase-rich fluid was drained (90,000 U/ml). The drainage of both cervical and thoracic collections improved the dyspnea and stabilized the patient. Then, studies to confirm the suspected pancreatic origin of the collec-



Fig. 1. CT imaging: large thoracic fluid collection.

tions were performed. The Wirsung duct appeared on ERCP to be irregular but without dilation and communicated with the pleura. A plastic stent was inserted into the pancreatic duct leading to fistula closing, resulting in a fast patient recovery without need of surgery. The stent was in place for 3 months and then endoscopically removed. He was still doing well two years later.

### Discussion

Pseudocysts can be classified into acute and chronic. Chronic pseudocysts are constituted by pancreatic juice enclosed by a

wall of fibrous or granulation tissue, arising as a consequence of chronic pancreatitis – as is our case – without any antecedent episode of acute pancreatitis (5). The reported incidence of chronic pseudocysts is 20-40% of chronic pancreatitis (5). On the other hand, acute pseudocysts have the same histologic features but are associated with an episode of acute pancreatitis. The usual location of pseudocysts is around the pancreas although extension into the abdominal cavity, pelvis, groin and even the scrotum has been described. However, the fluid occasionally reaches the pleura or the mediastinum (1,2,6) through the aortic and esophageal hiatus and, less commonly, through the foramen of Morgagni or directly eroding the diaphragm. Mediastinal pseudocyst symptoms are variable: abdominal, back or chest pain, dyspnea, dysphagia, odynophagia, weight loss and even cardiac tamponade (1,2). A location exceptionally reported is the cervical region (2-4) as in our case, which is usually due to spreading of mediastinal collections. The diagnosis of mediastinal pseudocysts is usually made by CT scanning, although can be suspected if mediastinal widening is seen on chest X-ray. The diagnosis can be even more difficult if radiological abdominal findings are lacking, as in this case. The treatment of mediastinal pseudocysts needs drainage, either percutaneous or surgical. The cervical collection should also be drained. Then, a possible underlying pancreatic duct disruption must be searched and treated if confirmed to lead to complete pseudocyst resolution. Two main successful endoscopic options have been described: transpapillary insertion of a pancreatic stent (7) and transgastric drainage of the abdominal part of the pseudocyst followed by stent insertion (2.6). Since in our case there was neither Wirsung duct dilation on ERCP nor abdominal collection on CT, and thus the pseudocyst was classified as D'Edigio type 2, we thought that immediate surgery was not needed and chose the endoscopic option (8,9). In conclusion, mediastinal and cervical location of a pancreatic pseudocyst is possible but uncommon and can be successfully treated by external drainage and transpapillary endoscopic stenting.

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