Pancreas Divisum Imitating Malignancy in a Patient with a Cystadenoma

A 69-year-old woman presented with dull right upper quadrant abdominal pain, which had increased in intensity over the previous few months. The patient's prior medical history had been uneventful, except a cholecystectomy due to cholecystolithiasis and a twoyear history of diabetes type II. The physical examination did not reveal any pathology, and in particular no palpable abdominal mass. The CA 19-9 level was slightly elevated (30 kU/I), while all other biochemical tests and tumor markers were in the normal range. CT displayed a regularly-shaped cyst with a diameter of 4 cm in the corpus, and an adjacent solid tumor in the head of the pancreas (Figure 1). Ultrasound-guided fine-needle biopsy of the lesion was highly suspicious for a pancreatic carcinoma.

ERCP failed to display the pancreatic duet after selective cannulation via the major papilla, but demonstrated a small accessory pancreatic duct 4 cm in length. The main pancreatic duct was reached via the minor papilla. A contrast study showed a lack of side branches within the corpus of the pancreas and a displacement of the pancreatic duct in the corpus, with concomitant dilation of the duct within the pancreatic tail. However, there was no infiltration of the pancreatic duct, indicated by the smooth appearance of the stenotic region (Figure 2). In contrast to the CT examination, these findings suggested the presence of a benign lesion.

The patient underwent laparotomy, with subtotal resection of the pancreas. On laparotomy, there was no evidence of a solid tumor in the pancreatic head, but multiple cysts were found in the corpus of the pancreas. However, the small accessory pancreas shown on ERCP was embedded between the cyst and the duodenum, so that it appeared as a mass. Histologic analysis showed a serous cystic adenoma consisting of multiple small cysts lined by cuboidal epithelium, without any evidence of malignant transformation.

Cystic neoplasms of the pancreas represent a rare entity, accounting for approximately 1-10% of cystic lesions and only about 1% of all pancreatic malignancies (1,2). Diagnostic evaluation of cystic pancreatic tumors remains a challenge. CT has resulted in a correct assessment of the malignancy of the lesions in only 60% of cases (3). ERCP is useful to distinguish between benign and malignant lesions of the pancreas. While obstruction occurs in 60% of malignant tumors, it is seen in only 4% of benign tumors (4). In this patient, ERCP correctly suggested the presence of a benign cystic lesion, and displayed an accessory pancreatic duct, indicating a pancreas divisum. Obviously, the pancreas divisum appeared as a pseudomass on CT, and was considered as a solid tumor. ERCP gave the clue to the correct diagnosis.

M. Dohmoto, M. Hünerbein, P. M. Schlag Department of Surgery and Surgical Oncology, Robert-Rössle Hospital and Tumorinstitute. Humboldt University of Berlin, Berlin, Germany

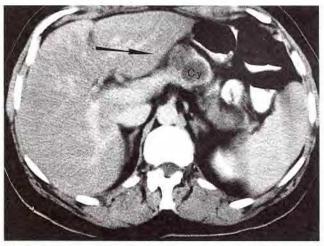


Figure 1: CT scan of the abdomen, showing a cystic lesion (Cy) in the corpus of the pancreas and an adjacent solid tumor in the head of the pancreas (arrow).

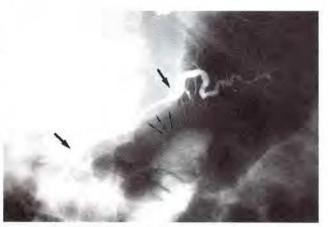


Figure 2: The ERCP demonstrated an impression (small arrows) of the main pancreatic duct, and a lack of side branches (large arrows).

References

- 1. Howard JM: Cystic neoplasms and true cysts of the pancreas. Surg Clin North Am 1989; 69: 651-665.
- 2. Katoh H, Rossi RL, Braasch JW, et al.: Cystadenoma and cystadenocarcinoma of the pancreas. Hepatogastroenterology 1989; 36: 424-430.
- 3. Dhir V, Mohandas KM, Swaroop VS: Cystic neoplasms of the pancreas: a heterogeneous disorder. J Surg Oncol 1992; 51:
- 4. Gazelle GS, Mueller PR, Raafat N, et al.: Cystic neoplasms of the pancreas: evaluation with endoscopic retrograde pancreatography. Radiology 1993; 188: 633-636.

Corresponding Author M. Dohmoto, M.D. Department of Surgery and Surgical Oncology Robert-Rössle Hospital and Tumorinstitute Humboldt University of Berlin Lindenbergerweg 80 13122 Berlin Germany Fax No: +49-(0)30-9417 1404