

LETTER

Splenic Infarction in Pancreatic Cancer

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Dear Sir:

A 70-year-old man with a 17-year history of ischemic heart disease presented with epigastric pain, body weight loss and fatigue of a two-month duration. On examination, there was no tenderness on palpation of the abdomen. Laboratory tests of tumor markers revealed a CA 19-9 of 37 U/mL (reference range: 0-37 U/mL), a DUPAN-2 of 1,200 U/mL (reference range: 0-150 U/mL) and a SPan-1 of 7,300 U/mL (reference range: 0-30 U/mL). A computed tomography scan disclosed a pancreatic cancer invading the celiac trunk and the splenic artery, and wedge-shaped hypodensity in the spleen, consistent with splenic infarction, and multiple hepatic metastases (Figure 1). Compression of the hepatic portal vein and bilateral renal infarction were also noted. Angiographic therapy including stenting, palliative surgery, and aggressive chemotherapy were not indicated because of his rapidly worsening general condition and lack of informed consent. The patient died of a small intestinal hemorrhage and hepatic failure three weeks later.

Splenic infarction frequently occurs in patients with atrial fibrillation, significant hematologic diseases, and thromboembolism [1]. Because of the anatomical relationship, namely that the pancreas is a retroperitoneal organ in close proximity to the splenic vessels, splenic involvement including infarction, abscess, intrasplenic pseudocysts, and hemorrhage is frequently associated with pancreatitis [2], however; splenic infarction caused by pancreatic cancer has only been reported very rarely [3, 4]. In the setting of splenic infarction associated with pancreatic cancer, infarction of the splenic artery may be caused

principally by torsion, direct invasion of the tumor, compression, or thromboembolism. It is also known that complex factors associated with cancer contribute to the hypercoagulable and thrombophilic state of cancer patients [5, 6]. Although splenic infarction with metastatic disease seems to be more often a terminal or pre-terminal event as shown in this case and in previous cases [3], an aggressive approach has been applied [4]. An urgent palliative pancreatectomy with splenectomy followed by chemotherapy with gemcitabine benefited the patient's prolonged survival. In conclusion, we should pay greater attention to potential splenic changes associated with pancreatic cancer and consider multimodality management for survival.

Conflict of interest The authors have no potential conflicts of interest

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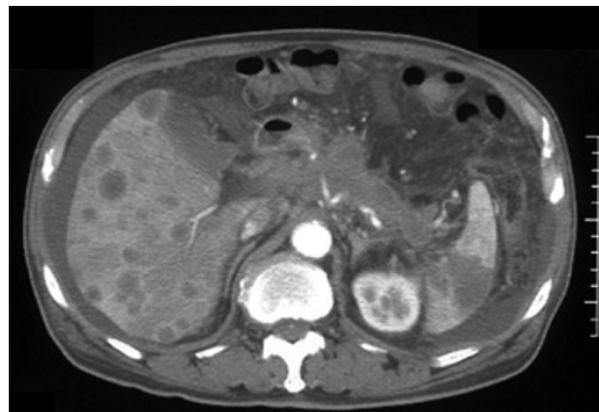


Figure 1. CT scan showing the pancreatic cancer invading the celiac trunk and the splenic artery, wedge-shaped splenic infarction and multiple hepatic metastases.

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