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Images in Clinical Medicine

Sarcomatoid carcinoma of the pancreas

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A 55-year-old man presented with vague abdominal discomfort and a 12-kg body weight loss over 3 months. His medical history included acute pancreatitis due to alcoholism 5 years previously. A physical examination revealed a large, firm, nontender mass in the left upper abdominal quadrant. All blood tests were within normal limits, including those for tumor markers (carcinoembryonic antigen, carbohydrate antigen 19-9, alpha-fetoprotein, and carbohydrate antigen 125).

Abdominal computed tomography with enhancement showed a 14-cm heterogeneous mass in the body and tail of the pancreas (Fig. 1, arrows). Surgical intervention with an exploratory laparotomy was performed. An *en bloc* resection of the distal pancreas, spleen, a segment of the proximal jejunum, and transverse colon was performed. The resected specimen is illustrated in Fig. 2. Histopathologic examination showed coexistence of carcinomatous and sarcomatous components in the tumor (Fig. 3). Immunohistochemical staining was strongly positive for cytokeratin (CK), CK7 (Fig. 4A), and vimentin (Fig. 4B), and negative for CD117, CD34, SMA, and S-100. Altogether, these results indicated a diagnosis of sarcomatoid carcinoma.

Sarcomatoid carcinoma of the pancreas is an extremely rare neoplasm, accounting for 2–7% of all nonendocrine tumors in the pancreas.

It usually originates from both acinar and ductal components [1]. Histologically, it is composed mostly of atypical spindle cells with apparent sarcomatous features. Focal differentiated carcinoma is usually present on histological examination and metastatic lesions have a great tendency to show carcinoma differentiation. In immunohistochemical studies, most tumor cells express CKs and usually vimentin. The World Health Organization classifies sarcomatoid carcinoma as an undifferentiated pancreatic carcinoma [2]. Most of these tumors are large and often located in the body and tail of the pancreas. The prognosis is poor because of an aggressive growth pattern and frequent distant metastasis. In most patients, radical surgery is necessary if possible.

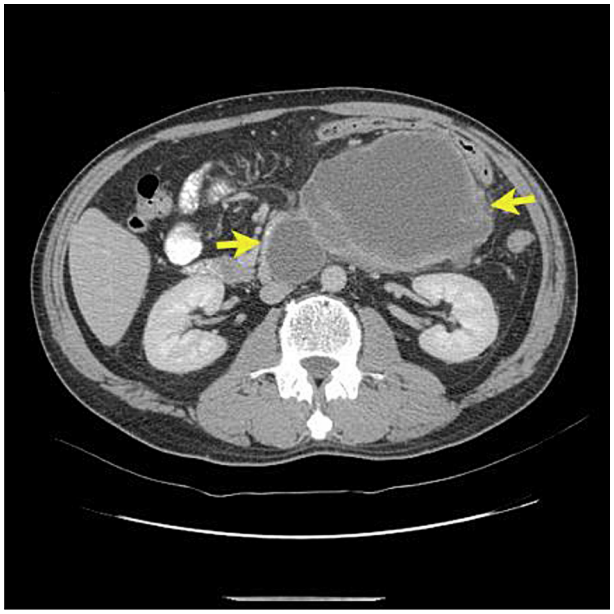

Fig. 1. Abdominal computed tomography demonstrates a 14-cm heterogeneous hypodense mass in the body and tail of the pancreas, situated behind the stomach and next to the spleen and transverse colon (arrows).

Conflicts of interest: none.

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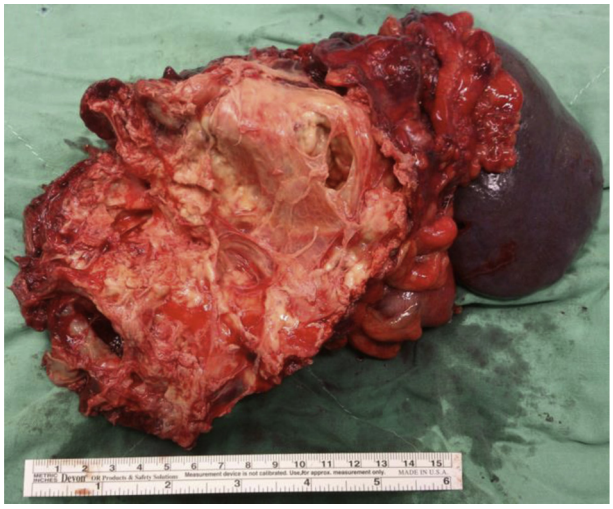

Fig. 2. The resected specimen is a well-circumscribed 14 cm × 10 cm × 7 cm tumor composed of multiple septa with a solid component.

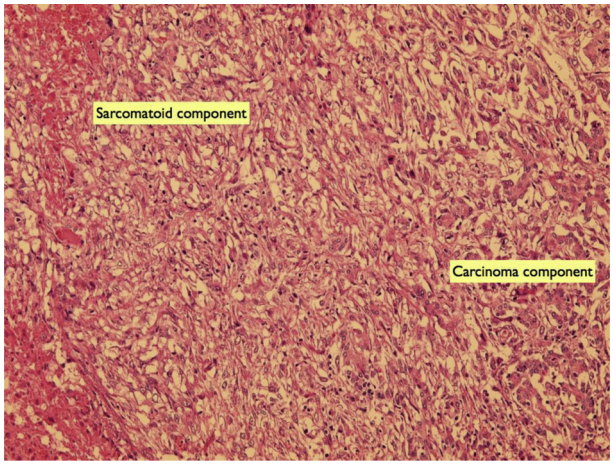

Fig. 3. Histopathologic examination of the tumor shows both carcinoma and sarcomatoid components. Marked necrosis and hemorrhage are also noted in the sarcomatoid component (hematoxylin and eosin stain, 20×).

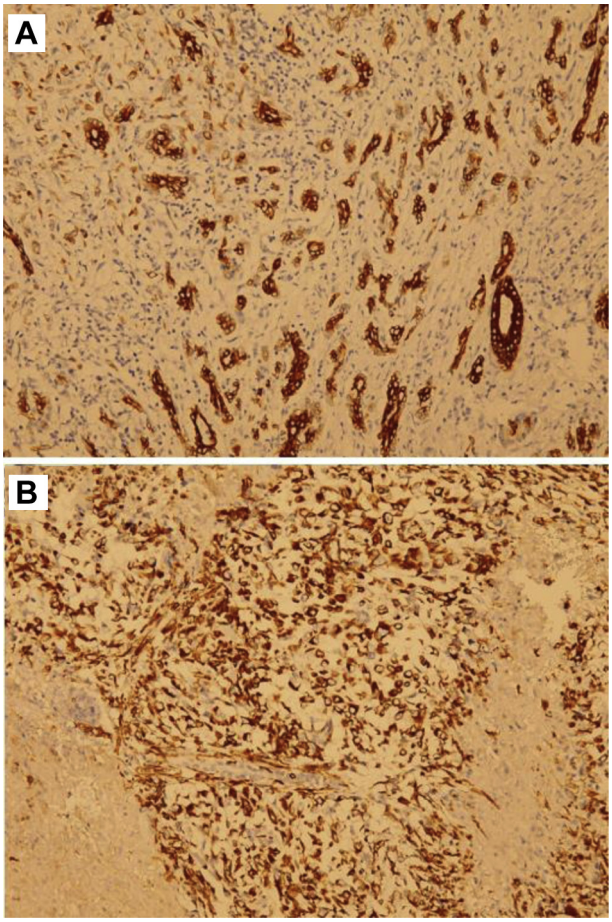

Fig. 4. Immunohistochemical staining is strongly positive for: (A) CK7 in the carcinoma component; and (B) vimentin in the sarcomatoid component.

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