Giant serous microcystic pancreas adenoma

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Abstract

Serous cystadenomas are rare tumors comprising 1-2% of exocrine pancreas tumors. They are mostly known as benign conditions but malign transformation as serous cystadenocarcinoma is also reported. It is usually seen in females. Non-specific symptoms, such as abdominal pain or symptoms due to mass effect, are usually seen. A 64-year old female patient was investigated for abdominal pain. Physical and laboratory findings were normal. Abdomen ultrasonography confirmed an 11x9.5 cm solid cystic lesion and abdomen computed tomography scan confirmed a 12x11 cm lobulated cystic solid lesion which had central cystic necrotic areas extending from liver hilus inferiory. Fine needle biopsy confirmed benign cytology and trucut biopsy of the pancreatic mass reported chronic inflammation. Nevertheless, this mass could have malignant contents and transformation potential. A laparotomy was decided due to patient’s symptoms and mass effect. Due to vascular invasion of the tumor, Whipple procedure was performed. The pathology report confirmed serous microcystic adenoma. These rare tumors are usually benign but pre-operative malignity criterias are not identified. There are few differential diagnostic tools for excluding malignity. We suggest surgical resection as best treatment approach for selected cases.

Case Report

A 64-year old female patient with abdominal pain came to us for a consultancy. She had had type 2 diabetes mellitus for 18 years and had a cholecystectomy 15 years previously. She had been examined ten years ago for her abdominal pain and a pancreas mass was detected in another city hospital. Pancreas fine needle biopsy confirmed benign cytology; she underwent no further check-ups. Three years ago, abdominal pain and nausea increased and she underwent trucut biopsy from pancreatic mass in another center. The biopsy report confirmed chronic inflammation. Furthermore, abdomen ultrasonography (USG) confirmed an 11x9.5 cm solid cystic lesion located from the left lobe inferior segment of liver extending to pancreas and bursa omentalis. Abdomen computed tomography (CT) scan confirmed a 12x11 cm lobulated cystic solid lesion which had central cystic necrotic areas extending from liver hilus inferiorty (Figure 1). This mass mobilated the right and left portal vein, inferior vena cava, left portal vein and superior mesenteric artery. Its pelvic border above right kidney and soft tissue was not clear. Given these radiological findings she was hospitalized in our unit. During hospitalization, physical examination revealed nothing of significance and her vital signs were normal. She had mild elevated liver enzymes: alanine minotransferase 48 mg/dL (normal range 0-40); aspartate aminotransferase 128 mg/dL (normal range 0-42). Her blood glucose levels were regulated by high-dose insulin (80 units daily). Other blood and urine tests and cancer biomarkers were in the normal range. She had undergone another trucut biopsy from pancreatic mass; the biopsy report confirmed benign mesothelial cystic lesion. Nevertheless, since this mass could have malignant contents, upper and lower gastrointestinal endoscopies (GIS) were performed. Upper GIS examination revealed antral hyperemic and nodular areas, and a duodenal noduler lesion. Owing to mass effect, bulging to anterior duodenal tissue was revealed. Multiple biopsies were taken and results were reported as normal tissue. Neither did colonoscopy show any remarkable finding. It was decided to perform a laparotomy because of the patient’s symptoms, malignity and mass effect. During exploration, pancreatic mass was seen in a wide area but there was no invasion to the borders. Due to vascular invasion of the tumor, Whipple procedure was performed (Figure 2). The patient was followed in the internal care unit until postoperative day 3 and discharged postoperative day 12 without any complications. The pathology report confirmed a tumor 15.5 cm in diameter. This report confirmed serous microcystic adenoma (Figures 3,4). There was no organ invasion or metastatic lymph tissue.

Discussion

Serous cystadenomas are rare benign tumors of the pancreas.10 There are also some reported cases of malignant transformation as serous cystadenocarcinoma.25 Serous cystadenomas comprise 25% of pancreas cystic neoplasms and 1% of all pancreas tumors.12,13 It is usually seen in females in the sixth decade of life (our patient was also 64 years of age) and is mostly asymptomatic.18 Most of the symp-
Serous microcystic adenomas are frequently associated with diabetes mellitus (24-36% of cases), as in our case. The association with diabetes mellitus is due to islet cell damage caused by the tumor or may be coincidental to patient age. The tumor occurs sporadically or as a part of von Hippel-Lindau disease that has a much wider range of tumor number, size and distribution within the pancreas.

Conclusions

In conclusion, serous microcystic pancreas neoplasms are rare tumors. They are usually benign but pre-operative malignity criteria have not been identified. The lack of effective tools for differential diagnosis from other cystic malignant neoplasms leads us to suggest resection as being the best treatment approach in selected cases.

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