

Enucleation of serous cystadenoma of pancreas: A case report

ARİF ÖZDEMİR¹, MEHMET KEŞKEK¹, MURAT ULUDAĞ¹,
ERHAN HAMALOĞLU¹, AHMET ÖZENÇ¹, BEDRİ UZUNALİMOĞLU²

Departments of ¹General Surgery and ²Pathology,
Hacettepe University Faculty of Medicine, Ankara-Turkey

A case of serous (microcystic) cystadenoma of the pancreas is presented. A 59 years old woman was diagnosed as a pancreatic tumor incidentally by abdominal CT. Intraoperative gross appearance of the tumor was benign and frozen section analysis revealed cystadenoma of the pancreas. Based on these findings enucleation of tumor was performed. The final diagnosis was a microcystic adenoma of the pancreas. Three years after the operation, at present, the patient is well with no recurrence and complication. [Turk J Cancer 2002;32(3):123-125]

Key words: Pancreatic tumor, serous cystadenoma of pancreas, enucleation, microcystic

Neoplastic cysts of the pancreas are very rare lesions; they account for estimatey 10% to 15% of all pancreatic cystic lesions and less than 1% of all pancreatic neoplasms. Serous (microcystic) cystadenomas also known as glycogen rich cystadenomas are seen mostly in the elderly population with a female predominance of 2:1. Serous cystadenomas are usually 7 cm in diameter, however ranges from 2 to 12 cm. Most patients present with vague abdominal pain, nearly one third of the patients may be asymptomatic and can be detected radiologically or at laparotomy incidentally for another reason (1). Microscopically, most are composed of multiple small cysts with clear fluid, giving a honeycombed appearance and they stain strongly with periodic acid-Schiff technique due to rich glycogen content (2). Most serous cystic neoplasms are benign, eventhough, recently, two malignant transformation have also been reported (3-5). Currently there is no standard treatment for these lesions, either conservative treatment or pancreatic resection (pancreaticoduodenectomy, distal pancreatectomy) can be performed.

In this report, we present a case of pancreatic cystadenoma treated successfully with enucleation method.

Case Report

A 59 year-old woman was admitted to Hacettepe University Hospital in December 1998 with abdominal pain and general malaise for the last one year. She had history of total abdominal hysterectomy for uterine leiomyoma 11 years

ago and excision of cysts from left and right breasts 8 and 5 years ago, respectively. On admission, ultrasonography showed a 4 cm in diameter cystic mass with a regular border in the right ovary. In the same admission, she had right oophorectomy and omentectomy, pathologic examination of which was reported as simple cyst with no papillary structures within. On the postoperative sixth day, abdominal computed tomography was performed for the arising abdominal pain and distention. CT scan showed a solid, hypodense, exophytic mass with 16x18 mm diameter, anteriorly placed on the head and corpus conjunction of the pancreas in addition to the pelvic hematoma. Other laboratory investigations, such as those of biochemical and tumor markers including CEA, CA 19-9, CA 125 and CA 15-3 indicated no abnormalities. Based on these findings, in January 1999, she was operated for the second time. Intraoperatively, an encapsulated tumor with a smooth demarcation from surrounding tissues was exposed. It was a nearly 2 cm in diameter mass with solid consistency, macroscopic appearance suggesting a benign tumor with no evidence of infiltrative growth. The tumor was enucleated from the pancreatic tissue by providing hemostasis with 4/0 nylon sutures and the pancreatic capsule was closed with 3/0 polypropylene sutures. The specimen was sent to frozen section analysis which revealed a benign tumor most likely to be a microcystic adenoma with honeycombed appearance. Based on these findings, avoiding an aggressive surgical intervention, the operation was terminated with total operation time being one and a half hours and the total amount of bleeding being 50 cc only. The patient was discharged from the hospital on the fifth postoperative day. The result of final microscopic examination revealed a serous (microcystic) cystadenoma of the pancreas. Microscopically the tumor consisted of multiple cysts lined by simple cuboidal cells and separated from one another by dense fibrous bands giving it a honeycombed appearance in accordance with the frozen section analysis. Three years after the operation, the patient is currently well with no recurrence or complication.

Discussion

Serous cystadenomas of pancreas are very rare neoplasms of the pancreas constituting less than 1% of all pancreatic neoplasms. Generally, serous cystadenomas of the pancreas are considered to be benign tumors even though, recently, two malignant transformation have been reported. Yoshimi et al. (3) and George et al. (4) have reported serous cystadenomas of pancreas metastasising to the stomach and liver. Exact preoperative diagnosis of serous (microcystic) cystadenoma of pancreas is usually difficult. Conventional radiological techniques rarely yield a clear diagnosis and most often only histopathological examination provides definitive diagnosis as in the present case (7). In our case, USG didn't show any tumor. Although abdominal CT scan showed the tumoral lesion, it couldn't define its nature for differential diagnosis. The decision for enucleation in our patient was based principally on the macroscopical appearance of the tumor and the histopathological result of frozen section analysis. In the current case, the enucleated pancreatic neoplasm was basically serous cystadenoma showing the typical multicystic areas lined by simple cuboidal cells with glycogen and separated by dense fibrous bands giving it a honeycombed appearance. This case indicated the importance of intra-operative diagnosis in pancreatic serous cystadenoma to

avoid a major aggressive surgery and the special role of frozen section analysis when combined with the surgeon's opinion about the gross appearance of the tumor. Eventhough, enucleation of benign tumors is a well-established surgical strategy in most gastrointestinal tract operations, to the best of our knowledge, there are only a few enucleation cases for the cystadenoma of the pancreas in literature (1,5,6,8). Enucleation can be safely performed for hepatic hemangiomas, hepatic cystadenomas, benign gastrointestinal stromal tumors of the esophagus and stomach even for the pancreatic endocrine tumors (9). This method in this case provided shorter operation time; less surgical morbidity in terms of intra-operative blood loss and possible post-operative diabetes mellitus, by preservation of organ parenchyma, spleen and the anatomy of the gastrointestinal and biliary tract and also earlier discharge fom hospital when compared with pancreatic resection.

We concluded that the microcystic neoplasms of the pancreas are mostly benign and enucleation of these tumors can be safely performed with low morbidity and mortality and this method is especially valuable for the low grade, borderline malignancies of the pancreas. Following enucleation of the pancreatic microcystic tumors, close post-operative follow-up is an adequate procedure. However, we believe that when these tumors are considered, it is better to operate these patients earlier rather than observing since, malignant transformation and other gastrointestinal side effects such as portal hypertension and gastrointestinal bleeding have been reported (3,4,10).

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