

Simultaneous Serous Cystadenoma of the Pancreas and Mucinous Cystadenoma of the Appendix

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ABSTRACT

Context Serous cystadenoma of the pancreas and mucinous tumors of the vermiform appendix are rare. To our knowledge, the simultaneous occurrence of these two tumors has not been reported.

Case report Here, we report an adult female who presented with signs and symptoms of appendicitis. A preoperative CT scan confirmed the findings of appendicitis and also showed an incidental large mass in the head of the pancreas. The patient underwent uneventful appendectomy. Her pathology revealed an acutely inflamed appendix with a benign mucinous cystadenoma at the tip. Several months after her recovery, a Whipple

procedure was performed. Pathologic examination showed a 5x5 cm serous cystadenoma of the head of the pancreas without evidence of malignancy. Two years later, the patient is alive and well without evidence of tumor recurrence.

Conclusions Cystadenomas of the pancreas and appendix are unusual and their simultaneous occurrence is a rare event.

INTRODUCTION

Cystic neoplasms of the pancreas are unusual tumors making up less than 6% of all resectable pancreatic neoplasms [1]. Likewise, mucinous cystadenomas of the

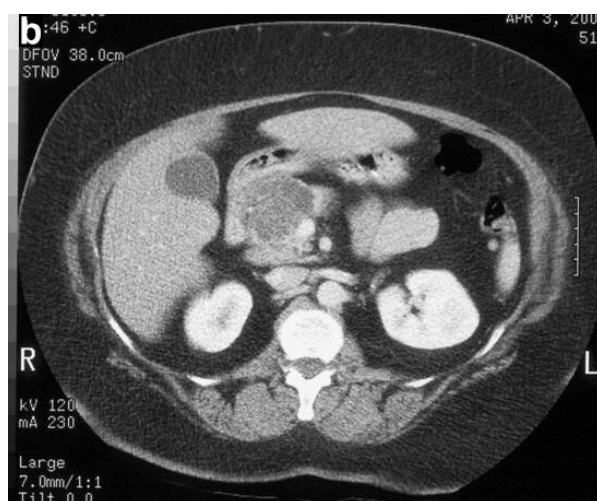
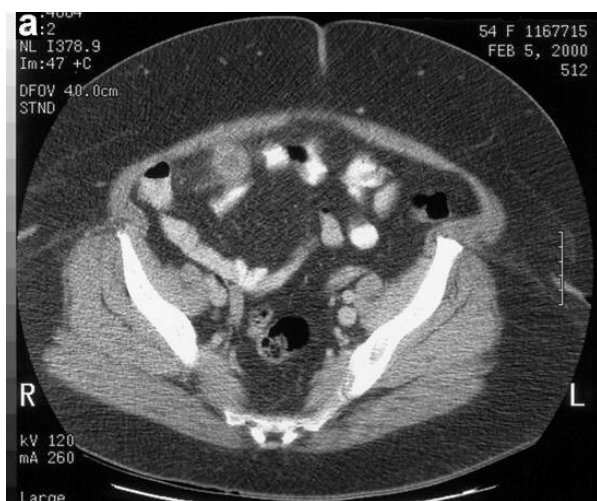


Figure 1. CT scan of a patient with appendicitis (a) and an incidentally found 5 cm serous cystadenoma at the head of the pancreas (b).

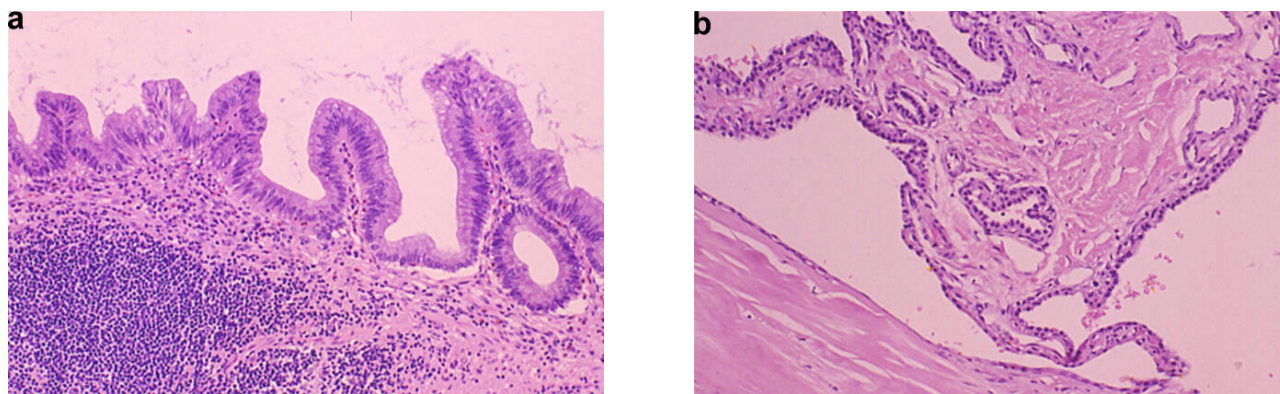


Figure 2. The pathological diagnosis showed an acutely inflamed appendix with a benign mucinous cystadenoma (a) and a benign serous cystadenoma of the pancreas (b).

vermiform appendix are also rare [2, 3, 4]. Therefore, simultaneous occurrence of both tumors represents an unusual entity that to our knowledge has not been described. Here we present an adult female with serous cystadenoma of the pancreas that was found incidentally upon the workup for appendicitis. Final pathology revealed a benign mucinous cystadenoma. Both of those tumors are benign and were amenable to curative resection.

CASE REPORT

A 54 year-old woman presented with complaints of sudden onset of sharp epigastric pain radiating to the right lower quadrant. On physical examination she was afebrile with tenderness on the right upper and lower quadrant areas. Her white blood cell count was slightly elevated at $12,000 \mu\text{L}^{-1}$ with 31% bands. Her renal, liver panel and amylase were otherwise normal. Computed tomography (CT) scan of the abdomen showed appendicitis (Figure 1a) as well as 5x5 cm pancreatic head mass that was multicystic in nature (Figure 1b). She underwent uncomplicated open appendectomy and her postoperative course was uneventful. Pathologic analysis revealed an acutely inflamed appendix with a benign mucinous cystadenoma (Figure 2a). After she recovered from surgery, a subsequent endoscopic ultrasound demonstrated a mixed solid and cystic lesion in the head of the pancreas abutting the superior mesenteric vein and portal vein without associated

lymphadenopathy, and cholelithiasis. Three months later, she underwent an uneventful Whipple pancreaticoduodenectomy. Pathologic diagnosis showed a 5 cm benign serous cystadenoma at the head of the pancreas (Figure 2b).

DISCUSSION

Pancreatic serous cystadenomas are rare, benign pancreatic neoplasms. They are usually discovered incidentally in the process of work up for other intraabdominal pathology, typically on ultrasound or on CT scan. They exhibit features of a “central burst” in a honey-comb like appearance, hypervascularity, and a lack of metastasis on CT scanning [5]. They commonly occur in women, with an anatomic preference for the head of the pancreas [6]. Almost 40% have irregularities of their epithelium, and therefore are frequently misdiagnosed as pseudocysts [6]. Most serous cystadenomas are symptomatic and require operative resection, or bypass, for relief in symptomatic cases [7, 8, 9]. Serous cystadenoma has been found in association with other diseases, and it is strongly associated with von Hippel-Lindau syndrome [10]. Also, there has been a case report of a malignant cystic tumor of the pancreas and the ovary [11].

Mucinous cystadenoma of the appendix is a histologic category of mucocele. The latter is defined as mucin filled cystic dilatation of the vermiform appendix, and is reported to be found in 0.2-0.3% of all appendectomy

specimens. Although it is rare, mucinous cystadenoma represents 63% to 84% of all mucocoeles [3]. These tumors are benign unless they disseminate through the wall of the appendix. They present in a variety of ways including appendicitis as in our case. Other presentations include bowel obstruction or intussusception [2, 3, 4, 12, 13]. The literature reveals reports that appendiceal mucinous cystadenoma has been found with cystic tumors of the ovaries or with pseudomyxoma peritonei. However, to our knowledge, there has been no documented association with pancreatic serous cystadenoma. We conclude that mucinous cystadenomas of the pancreas and appendix are uncommon tumors, especially when they occur synchronously as in this case report.

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Keywords Appendiceal Neoplasms; Appendix; Cystadenoma, Mucinous; Pancreas; Pancreatic Neoplasms

Abbreviations CT: computed tomography

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