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Case Study

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SEROUS CYSTADENOMA OF THE PANCREAS: A CASE REPORT

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ABSTRACT

Serous cystadenoma of the pancreas is a cystic benign tumor composed of small cystic spaces lined by small cuboidal cells with clear cytoplasm. We report a new case of this entity in 53-year-old Moroccan woman, with no family history of tumor. She consulted for an abdominal pain revolving for 2 months. The clinical exam revealed an epigastric sensitivity with a general state preserved. An abdominal computed tomographic scan was performed and revealed the presence of multicyclic pancreatic tumor measuring 2.5x1.5. It was located in the isthmus of the pancreas. The patient had an isthmic pancreatectomy. Histologically the tumor was composed of variably sized cysts bordered by simple cuboidal, focally glycogen-rich epithelium. The stroma was variably collagenized and showed highly vascularized, delicate to broad fibrous septas. Thus, the diagnosis of primary serous cystadenoma of the pancreas was retained. Serous cystadenoma is an uncommon neoplasm that can be confused with malignancy.

KEYWORDS: Pancreas, Serous Cystadenoma, Cystic Neoplasm, Case Report.

INTRODUCTION

Serous cystadenoma of the pancreas (SCA) is the most common benign tumor of the pancreas. It represents 1% to 2% of all pancreatic neoplasms.[1] These neoplasms have a predilection for older women (two-thirds of patients are women).[2] They are often asymptomatic and discovered incidentally. Diagnostic criteria and growth potential, are not well specified and whose diagnosis is based on histology. The aim of this study is to discuss the clinical, histological features as well as the differential diagnosis.

OBSERVATION

We report the case of a 53-year-old woman. She had no history of pancreatitis, did not smoke, and did not drank alcohol. Family history was negative for pancreas, colon, ovarian, or breast cancer. She consulted for an abdominal pain revolving for 2 months. The clinical exam revealed an epigastric sensitivity with a general state preserved. prompting an abdominal ultrasound, which revealed a cystic lesion located at the level of the isthmus of the pancreas. This lesion measures 2.5X1.5cm. There were no focal liver lesions or any enlarged mesenteric or retroperitoneal lymph nodes. She then had an MRI/MRCP that showed a multiloculated cystic mass in the pancreatic isthmus measuring 2.5x1.5. The isthmic pancreatectomy was performed. The macroscopic study showed a multilocular cyst measuring 2.5x1.5cm. Microscopically a multi-cystic lesion is bordered by a regular simple cubic epithelium (figure1). It has an endothelium aspect per places. The cells lining the small cysts have clear cytoplasm, well-defined cytoplasmic borders, and small, round uniform nuclei with dense, homogeneous chromatin (figure 2) The stroma was variably collagenized and showed highly vascularized, delicate to broad fibrous septas. the diagnosis retained is serous cystadenoma of the pancreas.

DISCUSSION

Cystic tumors of the pancreas are a benign epithelial neoplasm composed of uniform cuboidal, glycogen-rich cells, that often form cysts containing serous fluid (OMS 2019). This entity presents 1-2% of pancreatic tumors, their diagnosis is important because their management depends on both clinical and imaging diagnoses.[3] Among these tumors, serous cystadenomas of the pancreas present about 20% of pancreatic cystic lesions.[4] These lesions have a strong female predilection (75% of cases). The mean age of the patients is 61.5 years.[5] About one third of the neoplasms present as an incidental finding at routine physical examination or at autopsy.[6] Approximately two thirds of patients exhibit symptoms related to local mass effects, including abdominal pain, palpable mass, nausea, vomiting, and weight loss. Jaundice due to obstruction of the common bile duct is unusual, even in neoplasms originating from the head of the pancreas. Pancreatic serum tumor markers are generally normal. Ultrasonography (US) and computed tomography (CT) reveal a multi-cystic tumor consisting of microcysts defined by their diameter less than or equal to 2 cm. cysts are readily separated by fibrous septa that can give in 30% of cases a central scar

appearance, sometimes calcified.[7] More rarely, this lesion can take on a "honeycomb" appearance (20%) or be visualized in an oligocystic form (10%), showing only a few cysts, with a diameter greater than 2 cm. Classic imaging aspects of SCAs are found in 20% of cases (honeycomb appearance, calcifications, and central stellate scar).[8] In fact, in the largest study published, the SCAs may have an atypical presentation.[2] So SCA can be confused with other pancreatic cysts, including pancreatic neuroendocrine tumors, intraductal papillary mucinous neoplasms (IPMN), and mucinous cystic neoplasms (MCN). Thus, despite the availability of high-resolution radiologic techniques, a definitive preoperative diagnosis of SCA is still problematic. Treatment for pancreatic serous cystadenoma remains controversial. It is suggested that resection is generally carried out for symptomatic serous cystadenoma (diameter> 4 cm), or tumors with rapid growth (annual growth of greater than 4 mm), or the inability to distinguish a serous cystic neoplasm from a mucinous lesion, which has greater malignant potential. However, small or asymptomatic pancreatic serous cystadenoma should be provided with conservative treatment and close follow-up.[5]

Macroscopically, Serous cystadenomas of the pancreas are single, well-circumscribed, slightly bosselated, round lesions, with diameters ranging from 1-25 cm in greatest dimension (average, 6-10 cm). On section, the neoplasms are sponge-like and are made up of numerous tiny cysts filled with serous (clear watery) fluid. The cysts range from 0.01-0.5 cm, with a few larger cysts of up to 2 cm in diameter. Often, the cysts are arranged around a more or less centrally located, dense fibronodular core from which thin fibrous septa radiate to the periphery (central stellate scar). Histologically, small cystic spaces lined by small cuboidal cells clear cytoplasm (glycogen), minimal mucin, myoepithelial layer present, round hyperchromatic central nuclei.

The serous cystadenoma has characteristic imaging and histologic features that may differentiate it from other potentially malignant cystic tumors such as mucinous cystic tumors and intraductal papillary mucinous neoplasms.[9, 10]

CONCLUSION

SCAs of the pancreas are becoming increasingly more frequent because of advances in imaging techniques. These lesions often present with classic imaging findings across multiple modalities that help to distinguish them from other cystic tumors. A correct diagnosis is important in order to give a specific treatment and prognosis.

Iconography

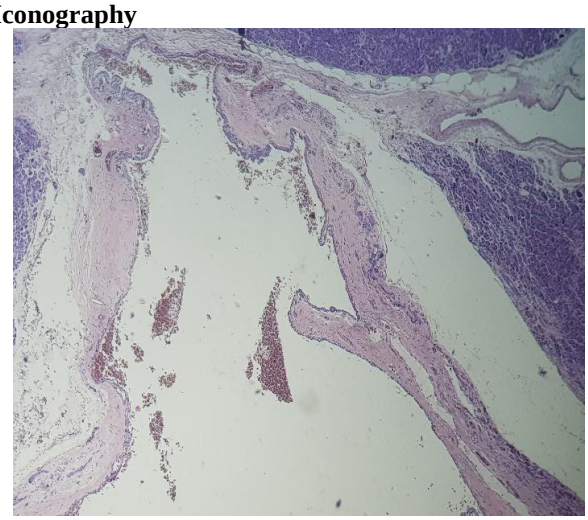

Figure 1: cystic lesion bordered by a regular simple cubic epithelium.

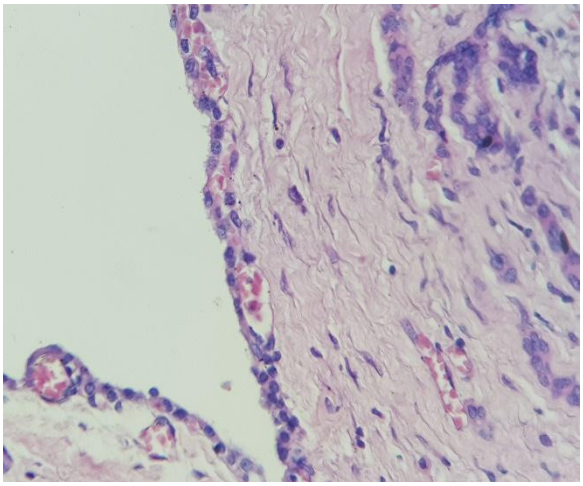

Figure 2: The cells have glycogen-rich clear cytoplasm, distinct cytoplasmic borders, and round, uniform nuclei with dense homogenous chromatin. Features of atypia or dysplasia are absent.

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