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Benign Multicystic Mesothelioma in a Man: A Case Report

Benign multicystic mesothelioma is a very rare tumor that originates from the peritoneum and is seen more often in reproductive aged females. On CT scan a fluid density mass is seen but the final diagnosis is based on histologic examination.

Hereby we report a huge multicystic benign mesothelioma in an old man.

Keywords: Mesothelioma, Cystic, Peritoneal, Mesothelioma

Introduction

Peritoneal mesothelioma is a rare neoplasm which originates from the peritoneal lining of the abdomen. The pathogenesis of the disease is uncertain.¹ Approximately 130 cases of benign mesothelioma have been reported in the literature until 2002, and the mesothelial origin of the disease was found in 1979.²

The disease is found mainly in reproductive female patients with a past medical history of abdominal surgery. It may conform to the contour of the liver or produce a mass effect on adjacent structures. Main clinical features include abdominal pain, nausea, vomiting and a palpable mass.³

Diagnosis is based on sonography at the first step and then CT scan of the abdomen, which shows a giant cystic mass in the abdominal and pelvic cavities.

Case Presentation

The patient was a 73-year-old man with a one-year history of dyspnea that had worsened one week prior to admission. Constipation, weight loss and edema of the lower extremities were the other complaints in his history. Abdominal distension without pain and tenderness was the positive clinical finding on admission. After admission, oliguria was detected. In paraclinical studies, CBC, BUN, creatinin and electrolytes were normal. In sonography (Siemens sonoline sienna ultrasound imaging system), a huge cystic lesion with a pressure effect on all the abdominal organs including IVC, intestinal loops and kidneys was detected extending from the upper abdomen to the pelvic cavity with complete echo-free material and a thin wall with thin septations. In abdominal CT scan with IV and oral contrast (Siemens Somatom system), a huge cystic lesion was detected with extension from the upper abdomen to the pelvis. The lesion contained homogeneous material with HFU of 15. The lesion had a thin wall and thin septae. There was no evidence of a solid component or a mural nodule within the lesion (Fig. 1A-E).

In operation, a huge cystic mass containing 4 liters of cloudy fluid was detected extending from the pelvis to the upper abdomen without involvement of the pancreas and lesser sac. After histological study, a multicystic benign mesothelioma was reported.

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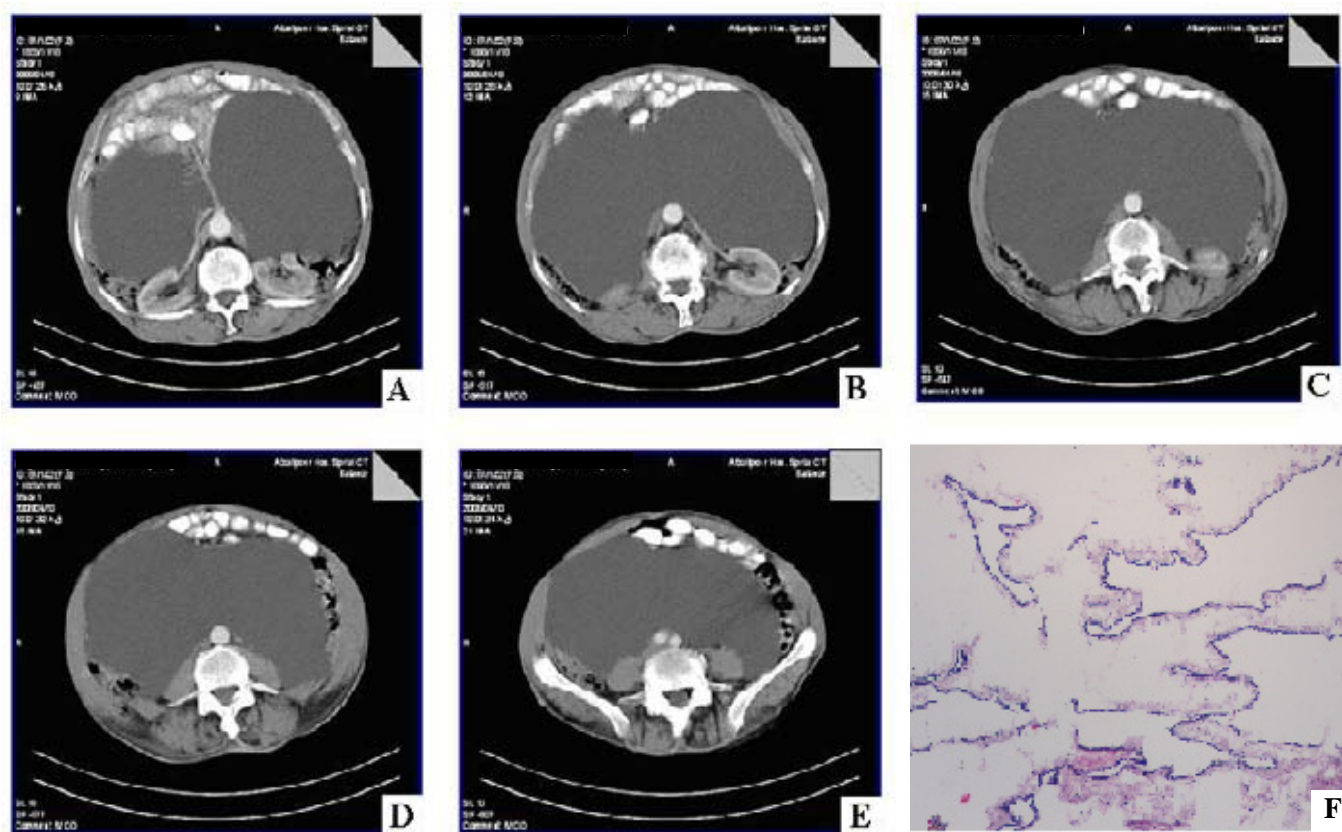


Fig. 1. 73-year-old man with benign multicystic mesothelioma.
A-E. Axial IV and oral contrast enhanced images of abdomen and pelvis.
F. Histologic appearance of the tumor.

In the last follow up which was performed 8 months after operation, all clinical problems were improved without evidence of recurrence.

Discussion

In a review of 118 cases, 81.2% of the patients afflicted by the disease were women with a mean age of 38.1 years (range, 1–73 years). The majority of the cases reported were white patients.⁴

In the history and physical examination, almost all signs and symptoms of this case such as chronicity, nausea, vomiting, dyspnea and weight loss were similar to the literature, although a miss-match was detected in some of them such as lower extremity edema, being painless and recurrence. Also regardless of the previous reported cases that were female, this patient was male.

In the imaging study (CT-scan) of this case, a huge cystic lesion with a thin wall and thin septae but without mural nodules or solid components was detected which was similar to the previously reported

cases.

However, these findings are not typical of benign or multicystic peritoneal mesothelioma, so other diseases, such as pseudomyxoma peritonei,⁵ leiomyosarcomatosis, malignant peritoneal mesothelioma³ or carcinosis peritonei have to be considered.⁶ Diagnosis has always been made by tissue biopsy rather than radiological studies.⁷

There is lack of consensus on the treatment and follow-up of benign multicystic mesothelioma. Most authorities consider curative treatment of this disease is achievable through complete disease cytoreduction (peritonectomy) as carried out in this case.⁸ In a report of 15 cases, recurrence was found to be 26.7%. Due to the benign histological features of the disease (Fig. 1F), radiotherapy and chemotherapy seem to be of no importance, although no studies have been published. Surgical resection of the tumor mass is the adequate therapy.²

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