

# Huge primary mucinous cystadenoma of the retroperitoneum mimicking a left ovarian tumor

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## Summary

Primary mucinous cystic tumors of the retroperitoneum are rarely encountered and have been reported in approximately 25 cases in the literature. The histogenesis of primary mucinous cystadenomas is not clear. Most authors suggest that it develops through mucinous metaplasia in a pre-existing mesothelium-lined cyst. Surgery is the only treatment.

In this report we present an additional case of primary retroperitoneal mucinous cystadenoma in a 44-year-old female.

**Key words:** Mucinous cystadenoma; Retroperitoneum.

## Introduction

Primary mucinous cystic tumors of the retroperitoneum are rarely encountered.

Approximately 25 cases including mucinous cystadenoma, borderline mucinous cystic tumor, and mucinous cystadenocarcinoma have been reported in the literature [1-8].

In this report we present an additional case that was initially diagnosed as a huge left ovarian tumor.

## Case Report

A 44-year-old female presented with an abdominal mass to our department. Her serum level of CA-125 was 75 IU/ml. The other tumor markers were negative. Physical examination revealed a large mass that had localized in the whole abdomen and pelvis. Magnetic resonance imaging (MR) of the pelvis and abdomen demonstrated a large lobulated cystic mass, isointense with urine in the bladder, originating from the left ovary, adjacent to the uterus and bladder. It filled almost the entire pelvis and abdomen and displaced the bowel to the right (Figure 1 A, B, C).

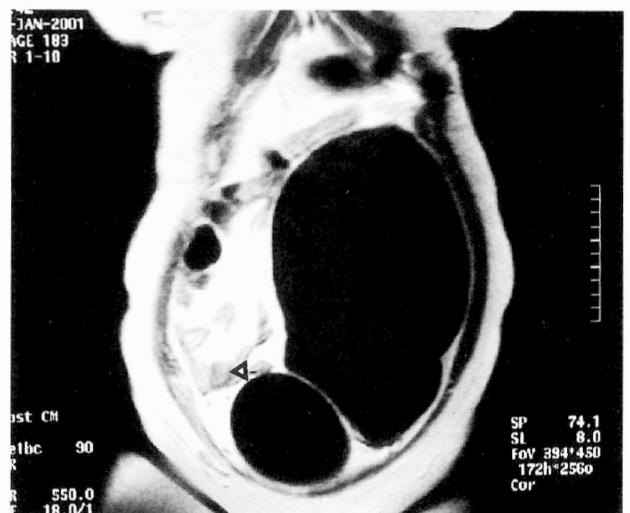
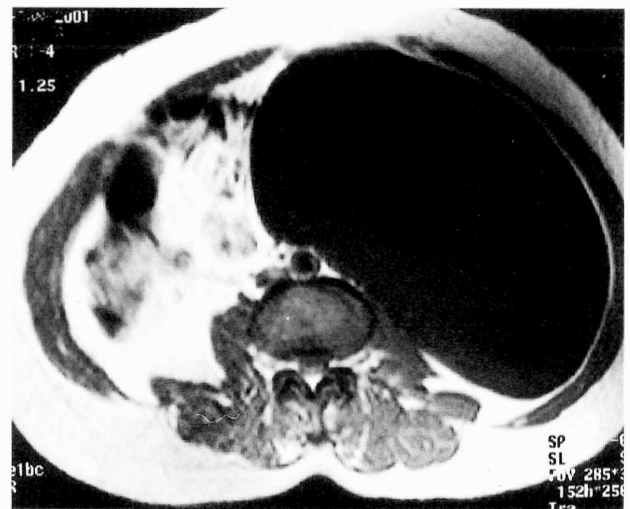
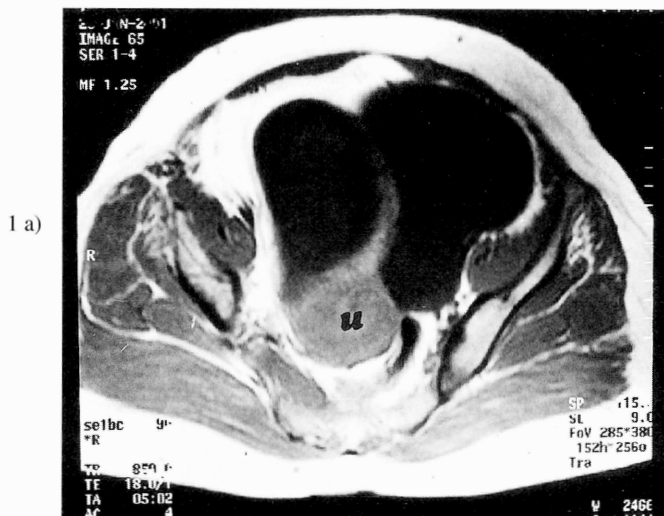


Figure 1. — T1-weighted MR images - axial sections. A: through the pelvis; B: through the mid abdomen; C: coronal section shows a large lobulated cystic mass, isointense with urine in the bladder, originating from the left ovary, adjacent to the uterus (U) and bladder (open arrowhead). Note the cystic mass fills almost the entire pelvis and abdomen, displacing the bowel to the right.

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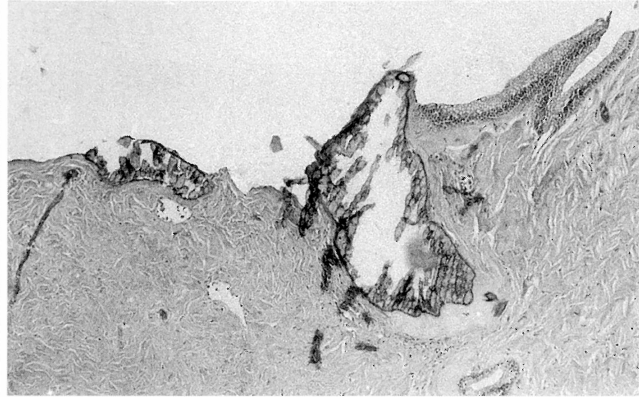


Figure 2. — Benign mucinous cystadenoma of the retroperitoneum. The inner surface of the cyst is lined by columnar and mucinous endocervical-like epithelium (Hematoxylin-eosin x 40).

Figure 3. — Benign mucinous cystadenoma of the retroperitoneum. The microphotograph shows the small calcifications in epithelial and subepithelial regions. Columnar mucinous epithelial lining can be seen on the right (Hematoxylin-eosin x 100).

Explorative laparotomy revealed the large cystic mass localized in the left retroperitoneum. The uterus and ovaries were normal. There was no other pathologic finding in the pelvis or abdomen. The cystic mass was removed totally without any complications. Frozen section revealed a benign tumor. Gross examination revealed a thin-walled unilocular cystic mass including watery mucinous fluid, 30x20x14 cm in diameter. Histologic examination demonstrated that the cyst was lined by columnar mucinous endocervical-like epithelium and the tumor was diagnosed as a benign mucinous cystadenoma (Figure 2). Small calcifications were seen in epithelial and subepithelial regions (Figure 3). Intracytoplasmic mucoid content was demonstrated by mucicarmen and Alcian blue (pH 2.5) stains. Immunohistochemically mucinous epithelium was found positive for epithelial membrane antigen (Neomarkers) and pancytokeratin (Neomarkers).

The patient received no further therapy. Her serum level of CA-125 dropped to 11 IU/ml postoperatively.

## Discussion

Mucinous cystadenoma is a rare tumor of the retroperitoneum. If these tumors are localized to the left or right of the abdomen and also have a huge appearance, they mimic ovarian tumors. The serum level of CA-125 may be increased above the normal serum level. Therefore diagnosis is never made preoperatively since primary retroperitoneal mucinous cystadenomas are usually mistaken for cystic lymphangiomas of the retroperitoneum [6, 7].

The histogenesis of this rare tumor is uncertain. Most authors suggest that it develops through mucinous metaplasia in a pre-existing mesothelium-lined cyst [6-8].

Surgery is the only treatment. In this report we presented a patient with huge mucinous cyst adenoma of the retroperitoneum that was totally removed without any complications.

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