

## CASE REPORT

## Giant solid abdominal mass with cystic lesions: a case report and diaphorodiagnostic approach

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### Abstract

**A peri-menopausal woman presented with abdominal distention, pelvic discomfort and problems of constipation for the last 4 months. All clinical and radiological examinations were in favor of a giant solid mass with cystic lesions arising from the left ovary. These findings raised suspicion of a primary malignant ovarian tumor or a pseudomyxoma peritonei. Surgery revealed a giant mass arising from the uterine fundus. An abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy were performed. The histological examination verified a degenerated myoma with cystic lesions with no evidence of malignancy. The patient made an uneventful recovery.**

**A gynecologist should always be prepared to perform a different surgery than planned according to operational findings (Fig. 2, Ref. 11).**

**Key words: abdominal solid mass, pseudomyxoma peritonei, giant uterine myoma, diaphorodiagnosis.**

Gynecologically originated abdominal masses presented for first time in peri- and post-menopausal women need full clinical and radiological investigation for diaphorodiagnostic reasons and operative planning. Therapeutical surgery is needed to give final diagnosis. Here is presented a case of such a mass confused to pseudomyxoma peritonei or ovarian malignancy by its preoperative investigation.

### Case report

A 51-year-old para-1 white female presented with abdominal distention, pelvic discomfort and problems of constipation for the last 4 months. Last menstruation was reported 8 months ago. Physical and pelvic examination revealed an abdominal mass extended over umbilicus. She has no family or personal history of cancer or other major pathology.

Transabdominal pelvic sonography confirmed a giant centric (>40 cm) solid mass with cystic lesions and no evidence of ascites. Computed Tomography (CT) of the abdomen and pelvis revealed a mass 36x30x8 cm confirming cystic lesions, which extended from the posterior wall of the uterus up to the second lumbar vertebra and invaded the parametrium bilaterally. Left ovary was in the pouch of Douglas. Intrapelvic lymph nodes were found. Kidneys were in upper ectopic position. Liver and

pancreas were normal in appearance. Chest X-ray was normal except of a higher position of both sides of diaphragm. Colonoscopy and IV pyelography revealed no pathologic findings. Serum levels of tumor markers such as CEA and Ca19.9 were normal, but Ca-125 was elevated.

Rising a diaphorodiagnostic problem for the origin of the mass, the patient underwent an explorative laparotomy.

Intraoperatively, was confirmed the size of the mass (Fig. 1) which extended from the posterior wall of the uterus up to the diaphragm, attached to the left ovary found in the lower pelvic floor. No ascites was found. Abdominal hysterectomy with bilateral salpingo-oophorectomy and omentectomy were performed. Peritoneal lavage was taken for cytology. No mass remained following surgery (Fig. 2). Post operative recovery was uncomplicated.

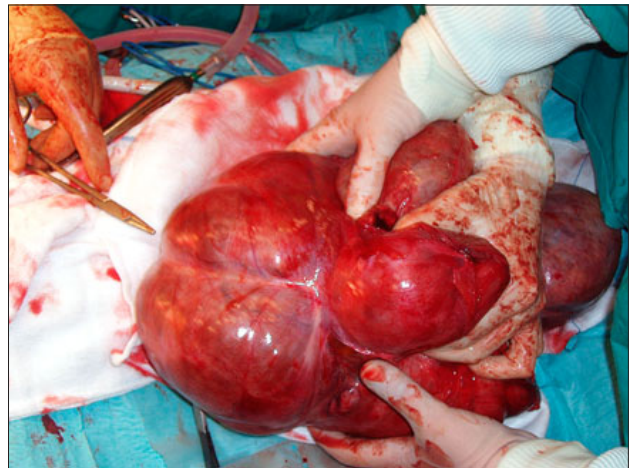
Cytopathologic examination of the peritoneal washing was negative. Histopathological examination verified a degenerated uterine myoma.

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## Discussion

Preoperatively all intra abdominal giant pathologies are examined by U/S, C.T or/and M.R.I scans in order to find characteristics differentiating masses one another like degenerated subserous leiomyomas, endometriosis with myxoid changes, malignant peritoneal mesothelioma, abdominal hydatidosis and giant retroperitoneal mucocele as they have been described in several reports (1–3). The use of CEA, Ca19-9, Ca125 levels may be useful in the differentiation of such pathologies but none of these markers or any combination of them are specific for any diagnosis.

In our case, the imaging showed a giant solid mass with cystic lesions easily confused to the pseudomyxoma peritonei because of the extended cystic lesions of thick liquid in all abdomen. Pseudomyxoma peritonei is characterized of the gradual accumulation of mucinous ascites in the peritoneal cavity. It originates in the appendix, spreads to involve other sites such as ovaries and occurs 2/10.000 laparotomies. Clinical signs as acute appendicitis, hernia and increasing abdominal growth can lead to the diagnosis of this condition (4). The differentiation from other clinical situation such as peritoneal carcinomatosis (5) is more accurate by MRI imaging which can better show the difference between mucinous and fluid either in cystic lesions or free in peritoneal cavity.

In our case after histopathological examination the mass turned out to be an uterine leiomyoma (or fibroid) which is the most common gynaecological tumor, benign in >99 % of the time (6). Leiomyomas are composed of smooth muscle with varying amount of fibrous connective tissue and occur in 20–30 % of women of reproductive age. Most commonly involve the uterine corpus. They are thought to arise from a somatic mutation of a monoclonal myometrial cell line. Myomas are sensitive to estrogen levels as they contain both progesterone and estrogen receptors. Growing during reproductive life, they frequently shrink after menopause. The possibility of malignancy should be considered in case of rapid grow after that period, which is a classic finding of leiomyosarcoma (7). That's why any uterine mass

growing after menopause should be removed throughout abdominal hysterectomy. According to their location fibroids are classified as subserosal, intramural and submucosal. The latter may be pedunculated and stimulates ovarian neoplasms (8). Dysmenorrhea and abnormal uterine bleeding are the associated symptoms. As leiomyomas enlarge may cause pelvic discomfort and upgrade urinary frequency. While enlarging and outgrowing their blood supplies, fibroids can undergo various types of degeneration (9), causing pain while degenerated, such as hyaline (65 %), myxomatous (15 %), calcific (10 %), carneous, fatty and cystic degeneration (10) which actually confused the whole diagnostic approach.

Laparotomy is the preferred method of treatment, although laparoscopic surgery is described to be useful in the diagnostic approach but limited because of the difficult abdominal entrance due to disease process near abdominal wall and the possibility of bowel injury (11). The preoperative diaphorodiagnosis of all these various benign or malignant conditions mentioned can be presented as abdominal masses with cystic lesions, in our case mimicking serous ovarian cystadenoma or pseudomyxoma peritonei is very difficult. The cooperation of gynecologist, radiologist and oncologist is necessary for the evaluation and treatment of such patients.

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