

Giant Ovarian Mass: About an Uncommon Case Report

Keywords: Abdominopelvic Mass; Ovarian Cyst; ROMA score

Abstract

Background: Ovarian giant masses remain today an uncommon clinical presentation thanks to their early incidental radiological discovery. Their symptomatic presentation is usually characterized by abdominopelvic pain and a feeling of heaviness. The most important management is the removal of the tumor in order to allow the anatomopathological study which is the only way to confirm or deny the malignancy. We hereby present an atypical case due to its occurrence in a young 48-year-old female patient, the considerable size of the tumor, its non-specific clinical and radiological presentation making the diagnosis difficult.

Case Presentation: This was the case of a 48-year-old woman with no particular antecedents, gravida 5 para 4 with four vaginal deliveries resulting in the birth of four healthy children and one miscarriage. She came to our department for management of a large abdominopelvic mass of more than 30 cm that was bulging out all abdominal organs. She had an MRI that strongly suspected ovarian origin and ROMA score that came back negative for malignancy. A left oophorectomy was followed by abdominal plasty. Anatomopathological study confirmed a serous cystadenoma with no sign of malignancy. The patient was discharged at D4 postoperatively. The follow-up was uneventful.

Conclusion: Giant ovarian masses, although uncommon, raise a double difficulty for the clinician. On the one hand, the diagnosis, although largely guided by MRI, can only be confirmed during surgery. On the other hand, it represents a surgical challenge whether by laparotomy or by laparoscopy. In addition, the ROMA score based on the dosage of tumor markers CA125 and HE4 allows malignant tumors to be screened, but confirmation is only provided by anatomopathological study, hence the importance of not rupturing the cyst during its extraction.

Abbreviations

BMI: Body Mass Index; **MRI:** Magnetic Resonance Imaging;
ROMA: Risk of Ovarian Malignancy Algorithm

Introduction

Ovarian giant masses remain today an uncommon clinical presentation thanks to their early incidental radiological discovery. Their management depends on the size of the tumor, the age of the patient and the histological type [1]. Frequency of malignancy is only 37-66% in perimenopausal women and 18-86% in postmenopausal women [2,3]. We hereby present an atypical case due to its occurrence in a young 48-year-old female patient, the considerable size of the tumor, its non-specific clinical and radiological presentation making the diagnosis difficult. We then confront this case with the data of the literature.

Case presentation

We hereby present the case of a young 48-year-old female patient, gravida 5 para 4 with four live children delivered vaginally and one miscarriage, who came to our structure for management of an



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abdominal mass evolving for about 8 years. The initial erroneous diagnosis of chronic ascites had been made and several evacuation punctures had been performed. The patient complained of chronic pelvic pain, complicated by digestive disorders with alternating diarrhea, constipation and vomiting. The examination on admission revealed an apyretic and stable hemodynamic state, a much distended abdomen, with hyper lordosis making any movement of the patient difficult. The patient weighed 90 kg for a height of 1.64 m with a BMI of 33.5, the xypho-pubic distance was 60 cm, the umbilical circumference was 100 cm. The vulva-perineal inspection was without particularity and the speculum revealed a healthy cervix without bleeding or leucorrhea, the vaginal examination coupled with the abdominal palpation showed the presence of an enormous mobile abdomino-pelvic mass which could not be separated from the uterus. On rectal examination, a prolapsed liquid mass was perceived in the Douglas pouch, the recto-vaginal septum and the parameters were without particularity.

Ultrasound revealed a large abdomino-pelvic mass of difficult exploration containing diffuse particles with localized small thickened partitions and no visible intestinal loop. The liver, spleen and kidneys were normal. Abdomino-pelvic MRI showed a huge cystic mass with clear and regular contours and vegetation on the right anteroinferior wall. It measured 35.7 x 22.4x12 cm without peritoneal effusion or liver lesion. Biologically, the tumor markers including CA125 and HE4 were normal. ROMA score was negative.

Xyphopubic median laparotomy confirmed the diagnosis of a large cyst of the left ovary very adherent to the anterior abdominal wall and the intestinal loops (Figure 1). The uterus and right adnexa were of normal size and morphology. A left oophorectomy was performed after extensive adhesiolysis. Anatomopathological study showed macroscopically a cystic mass measuring 32x23x12 cm with a

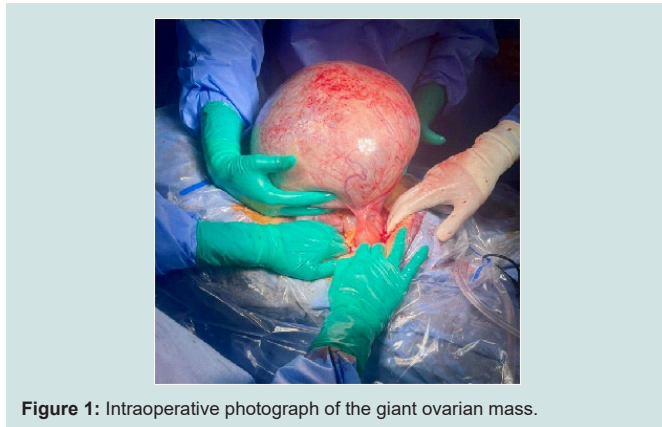


Figure 1: Intraoperative photograph of the giant ovarian mass.

thin wall and clear liquid content and microscopically a cystic cavity lined by a cubic epithelium with a band of fibrous connective tissue; in some places there were pieces of normal ovarian parenchyma in favor of a serous cystadenoma and no histological evidence of malignancy. The epiploic and peritoneal biopsies and the peritoneal cytology were free of any tumor infiltration.

Surgery included an abdominal plasty, preserving the umbilicus with multiple suction drains. The patient's weight went from 90 kg to 76 kg, allowing her BMI to go from 33.5 to 28.3, her umbilical perimeter from 100 cm to 68 cm and her xyphopubic distance from 60 cm to 29 cm. The postoperative course was simple with resumption of transit on day 2 postoperatively. The patient was discharged home at 4 days postoperatively. The follow-up was uneventful.

Discussion

Giant ovarian cysts are relatively uncommon; between 1947 and 1988, only 25 cases were described in the literature [4]. The largest ovarian cyst described in the literature was reported in Texas in 1905 and was reported to have weighed 169 kg [5]. The diagnosis of these giant ovarian cysts is usually easy in the presence of disproportionate abdominal distension with depletion of the umbilicus and alteration of the general condition. Ignorance, negligence and sometimes fear of hospitals explain the delay in consultation in low- and middle-income countries. A giant cyst of the ovary may simulate severe obesity or abundant ascites [4,6].

Exploration of giant ovarian cysts relies essentially on ultrasound and MRI. The last allows a more precise diagnosis and a better understanding of the tumor's relationship with other nearby organs [4,7-10]. Surgical management of giant ovarian cysts requires perfect collaboration between surgeons and anesthetists. The surgical procedure can be fraught with complications such as hypovolemic shock on removal of the tumor, intraoperative hemorrhage, atelectasis, pulmonary edema and postoperative ileus [5,6]. All of these conditions can be prevented by careful vascular filling, positioning the patient in the left lateral decubitus position prior to tumor removal, and also by proper colonic preparation of these patients [5,6]. The wide approach by xypho-pubic incision allows a good exposure with progressive and careful dissection of the cyst. Given the significant stretching of the anterior abdominal wall, abdominoplasty by longitudinal or transverse elliptical excision of the excess skin is necessary for aesthetic reasons and above all to promote respiratory mechanics [7,8].

Since the advent of laparoscopy and more particularly at the beginning of the 2000s, several authors have managed giant ovarian cysts laparoscopically, but as intra-abdominal rupture can be dramatic for the patient especially in case of malignancy [11,12], we have chosen classical management.

The specificity of this case is the presence of a giant mass in a perimenopausal patient with a slow evolution of the symptomatology. The frequency of malignancy is 37 to 66% and the size of the tumor points to a malignant pathology [2,3]. Serous cystadenomas produce non-specific symptoms. The most common symptoms include a feeling of pressure in the lower abdomen and symptoms of the gastrointestinal and urinary systems. Acute pain may also occur with adnexal torsion or cyst rupture [13]. Serous tumors develop by invagination of the surface epithelium of the ovary and secrete serous fluid. Generally benign, 5-10% has borderline malignant potential and 20-25% is malignant [14].

Measurement of the tumor marker CA125 may be helpful [15]. Many benign conditions such as fibroids, pregnancy, endometriosis, and pelvic inflammatory disease can cause elevated CA125 levels [16]. More recently, the biomarker HE4 has been evaluated and appears to be as sensitive as CA125 and better predictive of recurrence than CA125 [17]. The ROMA score with both markers provides greater sensitivity and specificity [18]. In our patient the score was negative which is in correlation with our anatomopathological study which did not find any sign of malignancy. Indeed, it is only the anatomopathological examination that distinguishes between benign, borderline and malignant serous tumors.

Conclusion

Giant ovarian masses, although uncommon, raise a double difficulty for the clinician. On the one hand, the diagnosis, although largely guided by MRI, can only be confirmed during surgery. On the other hand, it represents a surgical challenge whether by laparotomy or by laparoscopy. In addition, the ROMA score based on the dosage of tumor markers CA125 and HE4 allows malignant tumors to be screened, but confirmation is only provided by anatomopathological study, hence the importance of not rupturing the cyst during its extraction.

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