


**CASE REPORT**

# GIANT MUCINOUS OVARIAN CYSTADENOMA A CASE REPORT

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## ABSTRACT

Mucinous ovarian cystadenoma is a benign tumor, which accounts for 15% of all ovarian tumors and, when diagnosed, 80% are benign, 10% limitrophe and 10% malignant. It is a cyst that arises from the ovary surface epithelium, presenting multilocular feature with plain surface. It is more common between 30- and 50-years old persons and clinical signs differ from other ovarian pathologies because they present rapid growth, reach large dimensions and evolve with peritoneal pseudomyxoma, causing a significant increase in abdominal volume. Imaging methods such as ultrasonography and computed tomography, as well as the tumor markers CA-125 and CEA, are fundamental for its elucidation and therapeutic planning. We report a case of giant mucinous cystadenoma of the left ovary in a 61-year-old patient admitted to the emergency room.

**KEYWORDS:** mucinous cystadenoma; ovarian neoplasia; laparotomy.

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## INTRODUCTION

Many are the histological types of ovarian neoplasms and their classification is described as benign, limitrophe and malignant. Malignant ovarian neoplasms have a high mortality rate, being the fifth most common cause of cancer death in women in the United States. A large number of patients had nonspecific symptoms. Tumors of epithelial cells are the most frequent, being composed of three serous cell types, mucinous and endometrioses. The least common are mucinous tumors when compared to serous tumors, accounting for approximately 30% of all ovarian neoplasms [1].

With age, the risk of developing ovarian tumor increases due to progressive gonadal growth until it loses its functionality in the postmenopausal period, nevertheless, there remains a high capacity to generate tumors. The benign varieties correspond to 80% of ovarian tumors and predominate between 30 and 50 years old persons [2,3].

The size of the tumor varies greatly, ranging from small cysts to giant ones that occupy the entire pelvis and often occupy the entire abdominal cavity. In most developed countries, giant ovarian cysts are somewhat uncommon, but in developing countries it is a well-established pathology. They are considered giants when they are larger than 15 cm or occupy the entire peritoneal cavity [4,5]. The present paper describes the case of a giant left mucinous ovarian cystadenoma.

## CASE REPORT

A 61-year-old female patient sought emergency care at the Regional Hospital of Juan Caballero-PY, presenting severe pain in the pelvic region, difficulty in walking, and increased abdominal volume. At the physical examination, the patient was acyanotic, anicteric, afebrile, normotensive and without adenomegaly, vital signs were stable with a

significant increase in abdominal volume. Normal breast examination, external genitoscopy without changes. At the vaginal examination, presented a mobile and posterior cervix. Uterus anteflexed without changes and normal size, with bulging left vaginal fornix. Computed tomography of the entire abdomen was performed, demonstrating extensive tumor lesion and cystic hypodense occupying a large part of the abdominal cavity (Figure 1). Immunological examination of tumor markers found CA-125: 116.0 U/ml (reference: less than 35 U/ml) and CEA: 1.30 ng/ml (reference: non-smokers: 3.8 to 5, 0 ng/ml, smokers: 5.5 to 6.5 ng/ml). Laboratory tests such as hemogram, coagulogram, urea, creatinine and liver enzymes were also requested, but without any changes. We opted for the surgical intervention due to the painful situation and the possibility of ovary torsion. An exploratory laparotomy was performed with xiphoid-pubic incision. As the aponeurosis opening developed, it was possible to identify a large cyst (Figure 3) that filled the entire peritoneal cavity and a small amount of ascitic fluid, which was collected and sent for oncology cytology. Salpingo-oophorectomy was performed on the left ovary while the right one was preserved. The cavity was explored and no other pathological changes were determined. The removed part was sent to anatomicopathological analysis (Figure 2 and 4), which showed macroscopically left ovary with intact capsule measuring 33x28x20 cm in diameter, weighing 11 kg. Plain grayish surface. At the cut, we observed a multinocular cystic cavity containing a mucoid-like clear liquid. The postoperative period evolved without any intercurrent and the patient was discharged after the third day of hospitalization. At the outpatient clinic, after one month, the patient was asymptomatic.



**Figure 1:** Axial CT. Extensive expansive ovate cystic hypodense tumor, occupying large part of the abdominal cavity



**Figure 2:** Macroscopic Pathological Anatomy. Multinocular cystic cavity containing clear fluid of mucoid aspect



**Figure 3:** Intraoperative. Opening of the aponeurosis in the midline demonstrating the presence of a large ovarian cyst



**Figure 4:** Side view of the surgical specimen. Giant ovarian cyst after surgical resection

## DISCUSSION

Mucinosus cystadenoma presents a well-defined epidemiology. Its frequency is between the third and fifth decade of life and may affect younger women or be diagnosed during pregnancy [1].

Neoplasms of epithelial ovarian origin are classified according to histological characteristics in benign, malignant and low potential of malignancy tumors. The latter are characterized by pronounced epithelial proliferation, when compared to its benign variant, with the presence of variable cellular atypia and mitosis, but with absence of stromal invasion, which is a typical finding of malignant lesions [1].

Tumors of low malignancy potential are the most common. Mucinosis is a rare entity that, due to its characteristic, differs from other ovarian neoplasms by rapid growth, which can reach large volumes and evolve with the development of peritoneal pseudomyxoma [1,6]. Mucinous ovarian cystadenoma is a benign tumor, which originates from the epithelium of the ovarian surface, with the possibility of reaching large dimensions. 15% of all ovarian masses are made up of them, however, 80% of the mucinous tumors are benign. The differentiation between benign and malignant varieties is made through tumor size, morphology, presence of solid parts, loci, papillary excrescences, alteration of echogenicity, laterality, ascites and metastasis, and Doppler velocimetry staining. This information, together with the age of the patient and the histopathological nature of the ovarian cyst, are fundamental for the therapeutic orientation. Early diagnosis is difficult, since they present asymptotically and, when discovered, they present great proportions. However, when symptomatic, the woman complains of increased abdominal volume, intense pain, gastrointestinal, urinary and pelvic alterations [7,8]. In the present case, the physical examination showed some signs that led to the suspicion of a giant ovarian cyst. The palpation was painful, however, there was presence of cystic mass, occupying the entire abdominal cavity; the positive Piparote signal, which, despite being a maneuver to determine ascites, helped determine a large amount of intraperitoneal fluid. However, it was only through the CT scan that the diagnosis of giant ovarian cyst was confirmed. Therefore, we opted for the surgical approach

after diagnostic confirmation by the aforementioned exams

### CONCLUSION

Imaging examinations such as computed tomography, magnetic resonance imaging, and transvaginal ultrasonography are widely used imaging methods. CA 125 and CEA are used as markers for malignancy, although not specific, it helps in the diagnosis and prognosis of ovarian neoplasia. The surgical treatment will be indicated in the suspicion of ovarian cancer, gynecological urgencies, cysts greater than 6cm and symptomatic cysts, the latter being the most frequent indication. It can be performed by laparoscopy or exploratory laparotomy, a fact that depends on the surgeon's experience. For giant cysts, laparotomy is indicated since there is a need to manipulate the cyst to reach the pedicle of the ovary and perform the excision completely without breaking it. Excision without rupture is a prognostic factor for malignant tumors, as it reduces the frequency of metastases. In addition, the open pathway has diagnostic and therapeutic value in urgent and elective surgeries<sup>9</sup>. In the presented case, the xiphoid-pubic incision was chosen for the laparotomic route since the cyst occupied the whole peritoneal cavity and also because the Hospital did not have an extemporaneous biopsy. In such cases, the surgical approach must always be by the conventional via, in other words, through open procedure, so that there is excision with adequate margins and without its rupture.

### AUTHORS' CONTRIBUTIONS

The participation of each author corresponds to the criteria of authorship and contributorship emphasized in the [Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals](#) of the [International Committee of Medical Journal Editors](#). Indeed, all the authors have actively participated in the redaction, the revision of the manuscript and provided approval for this final revised version.

### PATIENT CONSENT

Written informed consent was obtained from the patient for publication of this case report.

### COMPETING INTERESTS

The authors declare no competing interests.

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