

## Giant Complex Adnexal Cyst Weighing 10 Kilograms in a 71-Year-Old Woman With Markedly Elevated Tumor Markers: A Case Report and Literature Review

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### Abstract:

Large adnexal cystic masses, particularly in elderly patients, pose significant diagnostic and therapeutic challenges. In this report, we present the case of a 71-year-old woman with a complex 10-kg adnexal cystic mass suspected to be either cystadenoma or cystadenocarcinoma. The patient experienced progressive abdominal pain, distention, dyspnea, and functional impairments such as difficulty walking and sleeping over a six-month period. Laboratory tests revealed a marked elevation of tumor markers CA-125 and CA-19-9, supporting the suspicion of malignancy. Abdominopelvic CT scan confirmed the presence of a large septated cystic mass extending into the upper abdomen. The patient underwent total abdominal hysterectomy with bilateral oophorectomy, and the 10-kg mass was successfully excised without complications. Postoperatively, she was referred to an oncologist for additional evaluation and further management. This case highlights the importance of early diagnosis, meticulous surgical planning, and multidisciplinary management of large adnexal masses.

**Keywords:** large adnexal cystic masses, 10-kg mass, total abdominal hysterectomy

### Background and Objective

Adnexal cysts are among the most common mass lesions of the female reproductive system, encompassing a spectrum from benign to malignant tumors.<sup>1</sup> The identification and management of such lesions—particularly those that are large and complex—pose substantial challenges for the healthcare team.<sup>2</sup> Giant complex adnexal

cysts, due to their size and heterogeneous content, often present with nonspecific symptoms and diagnostic delays. This can potentially lead to malignant transformation or to surgical complications.<sup>3</sup>

In many instances, establishing a definitive preoperative diagnosis is difficult, as clinical findings, imaging studies, and

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Received: 28/04/2025

Accepted: 05/08/2025

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serum biomarkers alone are insufficient.<sup>4</sup> Adenomas and cystadenocarcinomas, representing two ends of the pathological spectrum, can have overlapping imaging characteristics. This not only underscores the necessity for timely surgical intervention<sup>5</sup> but also highlights the importance of meticulous pathological assessment to guide final diagnosis and optimize patient management.<sup>6</sup>

In this article, we present a rare case of a giant complex adnexal cyst weighing 10 kilograms, which raised clinical suspicion for malignancy due to its complex nature. The report discusses the diagnostic challenges, therapeutic interventions, and surgical outcome, emphasizing the need for comprehensive evaluation of adnexal lesions, especially those with unusual dimensions. The presentation of this case may contribute to improved clinical awareness and decision-making in similar scenarios.

### Case Presentation

A 71-year-old woman presented with a six-month history of gradually progressive pain and swelling in the lower abdomen, eventually developing severe symptoms. Pain intensity increased over time, accompanied by further abdominal distension. This condition led to shortness of breath and significant impairment of daily activities such as walking, sitting, and lying down. Over the past four months, worsening symptoms caused severe sleep disturbance due to abdominal pressure, ultimately prompting medical consultation.

On initial physical examination, the patient's abdomen was markedly firm and distended, and she had defecation difficulties. Based on clinical findings, routine laboratory tests and tumor marker assessments were ordered. Laboratory results revealed abnormally high levels of CA-125 and CA-19-9, reaching ten times the upper limit of normal (Figure 1).



*Figure 1. Patient's histopathology slide.*



*Figure 2. Intraoperative extraction of the abdominal mass.*



*Figure 3. Weight measurement of the excised mass.*

Following these results, an abdominopelvic CT scan was performed for further evaluation. Imaging revealed a large complex cystic mass with multiple septations, suggestive of cystadenoma and, less likely, cystadenocarcinoma. The mass, measuring over 310 mm in diameter and approximately 9 liters in volume, originated from the adnexa and extended into the upper abdomen.

The patient was urgently admitted and prepared for emergency surgery. She underwent total abdominal hysterectomy with bilateral oophorectomy. The procedure was performed meticulously, and a 10-kg mass was successfully extracted from her abdomen (Figures 2 and 3). After initial recovery, she was referred to an oncologist for further workup and continuation of treatment.

## Discussion and Conclusion

Giant complex adnexal cysts, particularly those with suspected malignancy, present considerable challenges in diagnosis and therapeutic planning.<sup>7</sup> The current report describes a 71-year-old woman with a massive adnexal tumor and severe symptoms, requiring urgent surgical intervention. Such cases are rarely reported in the medical literature, but their discussion can enhance understanding of early diagnosis and optimal treatment approaches. In this patient, early manifestations such as abdominal pain, distension, and functional limitations, including mobility and sleep disturbances, worsened gradually. The delay in seeking medical attention underscores the need for public education on recognizing early symptoms of abdominal masses. Studies have shown that diagnostic delays may allow adnexal cysts to grow excessively, complicating both surgical management and postoperative recovery. Additionally, symptoms such as dyspnea and compression of adjacent organs—clearly seen in this case—reflect the mechanical complications of extreme mass size and cephalad extension.<sup>8-9</sup>

This patient's laboratory tests revealed marked elevations in CA-125 and CA-19-9.

These tumor markers are commonly used in the evaluation of ovarian malignancies; however, elevation alone cannot confirm malignancy. In this case, a tenfold increase heightened the clinical suspicion for a malignant or complex lesion and supported the need for advanced imaging. These findings are consistent with earlier studies demonstrating that these markers can be significantly raised in large and complex adnexal cysts.<sup>10</sup>

The CT scan showed a massive cystic lesion with multiple septations extending into the upper abdomen. The radiological impression favored cystadenoma or cystadenocarcinoma. Such imaging findings share characteristics between benign and malignant adnexal lesions, making precise therapeutic decisions crucial. In cases like this, the size of the mass not only increases mechanical complications but also raises the risk of malignancy.<sup>11</sup>

The patient underwent successful total abdominal hysterectomy with bilateral oophorectomy, and the 10-kg mass was completely removed. Surgical management in such scenarios requires high technical skill, thorough preoperative evaluation, and strategic planning. Giant adnexal cysts—especially those suspicious for malignancy—may adhere strongly to surrounding tissues, increasing intraoperative risk.<sup>12</sup>

Previous studies have reported a high risk of cyst rupture during surgery for massive tumors, which can release cystic fluid and possibly malignant cells into the abdominal cavity. In this case, careful surgical technique prevented such complications and allowed for complete removal without injury to adjacent organs. Referral to an oncologist for further evaluation and consideration of adjunctive therapies such as chemotherapy or radiotherapy was an essential step in management. While final histopathological analysis remains essential for definitive differentiation between benign and malignant lesions, the mass's size and imaging features in this case warranted consideration for additional treatment.<sup>13</sup>

Literature review indicates that large adnexal cysts with malignant potential are more common in elderly patients. The presence of comorbidities such as hypertension, diabetes, or cardiovascular disease in this age group can further complicate surgical planning and recovery. Moreover, the overall likelihood of malignancy increases with age, emphasizing the value of tumor marker evaluation and advanced imaging in elderly patients.<sup>5,8,10</sup>

This case underscores the importance of prompt diagnosis, the use of accurate diagnostic tools such as tumor markers and

imaging studies, and carefully planned surgical management. Public awareness of early abdominal mass symptoms, enhancement of clinical diagnostic skills, and interdisciplinary collaboration are essential to improve outcomes. Postoperative follow-up and regular assessment should be prioritized for elderly patients with similar presentations. Ultimately, this case highlights the complexity of managing giant adnexal masses and the key role of multidisciplinary cooperation to ensure patient recovery and prevent complications.<sup>11</sup>

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