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Giant Cystadenofibroma in an Octogenarian: Diagnostic Challenges and Surgical Decision-Making in the Context of Multiple Comorbidities

Gervais Mounchikpou Ngouohouo[1,2], Michèle Florence Mendoua[1*], Michelle Donkifack[1], Gertrude Moukouri[1,2], Astrid Ruth Ndolo[1,2], Henri Essome[1,2], Emile Mboudou[3,4]

[1]Department of Surgery and Specialties, Faculty of Medicine and Pharmaceutical Sciences, University of Douala, Douala, Cameroon
[2]Laquintinie Hospital of Douala, Douala, Cameroon
[3]Department of Obstetric and Gynecology, Faculty of Medicine and Biomedical Sciences, University of Yaounde I, Yaounde, Cameroon
[4]Douala Gyneco-Obstetric and Pediatric Hospital, Douala, Cameroon
Email: *mmendoua29@gmail.com

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Abstract

Background: Giant ovarian cystadenofibromas are rare benign epithelial tumors, and their occurrence in very elderly women is exceptional. In postmenopausal patients, adnexal masses carry a higher risk of malignancy, and diagnostic uncertainty, combined with advanced age and comorbidities, markedly complicates clinical management. **Case Presentation:** We report the case of an 82-year-old woman presenting with a three-month history of progressive abdominal distension, discomfort, constipation, urinary difficulty, early satiety, and weight loss. Imaging revealed a giant multilobulated cystic ovarian mass, classified O-RADS 3. Tumor markers (CA-125, CEA, CA19-9) were normal. Her medical history included poorly controlled hypertension and extrapulmonary tuberculosis under treatment. On admission, physical examination showed a markedly distended abdomen with a large palpable mass. Following multidisciplinary assessment and optimization, an exploratory laparotomy was performed. Three large multilobulated right ovarian cysts, the largest measuring approximately 35 × 32 cm, were removed, along with a hysterectomy. Postoperative recovery was complicated by transient anemia requiring transfusion. Histopathology confirmed a benign serous cystadenofibroma. The patient was discharged on postoperative day 7 with favorable outcomes. **Conclusion:** This case illustrates the diagnostic and therapeutic challenges of giant ovarian masses in frail elderly patients. Despite their be-

nign nature, giant cystadenofibromas may mimic malignancy and require surgical intervention. Multidisciplinary preoperative assessment is essential to balance surgical benefits with the increased anesthetic and medical risks inherent to advanced age and comorbidities.

Keywords

Giant Ovarian Mass, Serous Cystadenofibroma, Postmenopausal Woman, Elderly, Ovarian Tumor

1. Introduction

Ovarian cysts are among the most common gynecological conditions, affecting approximately 5% of women throughout their lifetime [1]. Although most ovarian cysts are benign and typically occur during the reproductive years, adnexal masses in postmenopausal women pose significant diagnostic and therapeutic challenges because of the substantially higher risk of malignancy in this age group, estimated at nearly 15% of cases [2] [3]. Among benign epithelial tumors, cystadenofibroma represents a rare histological entity, usually small, asymptomatic, and often discovered incidentally [4]. Giant cystadenofibromas, defined as tumors exceeding 10 cm in diameter, are exceptionally rare, with only a few cases reported in the literature, and most of them occurring in younger or perimenopausal women [5] [6]. The occurrence of such a tumor in an octogenarian patient is therefore extraordinary and raises substantial clinical concerns. One of the most difficult aspects of managing large adnexal masses in elderly patients lies in the inability to confidently exclude malignancy based solely on preoperative assessment. Imaging findings may be inconclusive, and tumor markers are frequently non-specific or normal despite large tumor volume [3] [7]. Consequently, surgical exploration often remains the definitive diagnostic and therapeutic approach. However, in advanced age, surgery carries increased risks due to frequent comorbidities, reduced physiological reserve, and higher postoperative complication rates [8]. Hypertension, cardiovascular disease, and chronic infectious conditions such as tuberculosis further complicate anesthetic management and intraoperative decision-making [9]. These challenges highlight the critical need for a multidisciplinary geriatric assessment, integrating gynecology, anesthesia, internal medicine, and geriatrics, in order to balance operative benefits against global frailty and perioperative risks. We report the rare case of a giant multilobulated ovarian cystadenofibroma in an 82-year-old woman with multiple comorbidities, illustrating the diagnostic complexity and therapeutic dilemmas involved in managing massive ovarian tumors in the elderly.

2. Case Presentation

An 82-year-old woman was referred to our gynecology unit by a hepatogastroen-

terologist for further management of a suspected ovarian mass. Symptoms had begun three months earlier with progressive abdominal distension and discomfort. The patient initially self-medicated with phytotherapy and over-the-counter drugs, but without improvement. Over time, her condition worsened, with increasing abdominal distension, constipation, urinary difficulties, progressive weight loss due to anorexia and early satiety, as well as fatigue and insomnia. The persistence and progression of symptoms led her to seek medical attention, where an abdominopelvic ultrasound and pelvic MRI were requested.

Ultrasound revealed a large multilobulated abdominopelvic mass displacing intra-abdominal organs while the digestive organs remained normal. Pelvic MRI showed a multilobulated cystic mass arising from the right ovary, classified ORADS-3, measuring 4490 cm^3 and exerting a mass effect on surrounding structures, with minimal ascites, no pelvic lymphadenopathy, and a normal uterus measuring 93 × 48 × 38 mm with homogeneous myometrium and a normal endometrium. Based on these findings, she was referred to our unit for specialized management.

Her medical and gynecologic history revealed that she was G6P6004, with all deliveries at term and uneventful postpartum periods. She had been postmenopausal for more than 30 years and had never used hormone replacement therapy. She had no personal or family history of gynecologic or digestive malignancies and had never undergone cervical or breast cancer screening. Her medical history was remarkable for poorly monitored arterial hypertension for the past three years, treated with Ramipril/Hydrochlorothiazide 5/12.5 mg daily and cardioaspirin. She had also been diagnosed with extrapulmonary tuberculosis four months earlier and was undergoing treatment with RHEZ (Rifampicin, Isoniazid, Ethambutol, Pyrazinamide) with good adherence. She had no known drug allergies; her blood group and hemoglobin electrophoresis were unknown, and she had never been transfused. She did not smoke, use snuff, or drink alcohol regularly.

Systemic inquiry revealed weight loss, constipation, anorexia, abdominal pain, distension, fatigue, insomnia, and pollakiuria. She denied night sweats, cough, or abnormal uterine bleeding. At admission, she was conscious, with a Glasgow Coma Scale of 15/15, but appeared cachectic. Her blood pressure was 143/80mmHg, pulse 113/min, and weight 52 kg. She had good mucocutaneous coloration and anicteric sclerae. Cardiac examination showed tachycardia without added sounds, and her lung examination was normal. Her abdomen was markedly distended with non-bulging flanks, mild generalized tenderness, and no signs of guarding or peritoneal irritation. Palpation revealed a large, irregular mass extending from the right flank and iliac fossa across the midline to the left flank, with an abdominal circumference of 93 cm. Pelvic examination showed atrophic external genitalia, and speculum examination revealed a normal cervix and vaginal walls without discharge or bleeding. Bimanual examination revealed a uterus that was difficult to assess and bilateral soft adnexal masses, without cervical motion tenderness.

Given these findings, the working diagnosis was a giant ovarian tumor in the context of hypertension and treated extrapulmonary tuberculosis. Pelvic ultra-

sound described a complex multilobulated cystic mass occupying the entire pelvic cavity, measuring 282 × 267 × 230 mm (estimated volume ~9000 mL), suggestive of a mucinous cystadenoma. The uterus was anteflexed, measuring 93.5 × 35.2 mm, with a 10.5-mm endometrium; the cervix was normal and the ovaries were not visualized. Tumor markers were within normal limits (CEA < 0.5 ng/mL, CA-125 = 22.17 U/mL, CA19-9 = 3.89 U/mL). Additional investigations included an ECG showing sinus rhythm at 86 bpm, left axis deviation, right atrial overload, and persistent S-wave to V6. Complete blood count revealed WBC 10.9 × 10^9/L (granulocytes 9.1 × 10^9/L), RBC 3.87 × 10^{12}/L, hemoglobin 10.2 g/dL indicating mild normocytic hypochromic anemia, and platelets 167 × 10^9/L. Cardiac ultrasound revealed a subaortic septal bulge, eccentric left ventricular hypertrophy, an ejection fraction of 80%, moderate eccentric mitral regurgitation, impaired left ventricular relaxation, and a collapsed inferior vena cava. Abdominal ultrasound confirmed the presence of a large multilobulated fluid collection.

The main objectives of management were symptom relief and improvement of the patient's quality of life. A multidisciplinary meeting involving gynecology, anesthesia, and geriatrics discussed the case, including the possibility of an "open-and-close" procedure depending on intraoperative findings. Supportive measures included adequate hydration and a protein-rich diet. Laxatives (Forlax) were initiated to manage constipation. It was decided to perform an exploratory laparotomy with the intent of cystectomy under general anesthesia.

Preoperative assessments showed blood group O+, PT 90.4%, aPTT 37.6 seconds, fasting glucose 1.06 g/L, creatinine 8.1 mg/L, urea 0.46 g/L, and normal electrolytes. Preoperative instructions included stopping Ramithiazide, reserving two units of packed red blood cells, consuming light meals for two days before surgery with laxative use on the eve of the procedure, abdominal and pubic shaving, and antiseptic baths.

During surgery, the abdomen was massively distended. Three large multilobulated right ovarian cysts were found adherent to one another, measuring approximately 35 × 32 cm, 15 × 10 cm, and 7 × 5 cm, each containing deep yellow fluid. The largest cyst was adherent to the right posterolateral abdominal wall with type C adhesions (refer to dense, vascularized adhesions that are difficult to separate and often involve multiple anatomical structures, increasing the risk of surgical injury during dissection). The left adnexa and uterus appeared normal. A right ovarian cystectomy and hysterectomy were performed (**Figures 1-3**). Estimated blood loss was 500 mL; intraoperative urine output was 300 mL, and the patient was transfused with one unit of red blood cells toward the end of surgery.

The early postoperative course was marked by elevated systolic blood pressure, tachycardia, somnolence, and marked pallor. A diagnosis of decompensated anemia was made, and she received an additional unit of packed red blood cells. After the transfusion, the postoperative recovery was favorable, and the patient was discharged seven days after. Histopathological examination revealed a non-lesional cervix, simple glandulo-cystic endometrial hyperplasia without atypia, a benign serous ovarian cystadenofibroma, and a normal contralateral adnexa. So the final

diagnosis was a giant benign serous cystadenofibroma of the right ovary in an 82-year-old woman with hypertension and treated extrapulmonary tuberculosis.

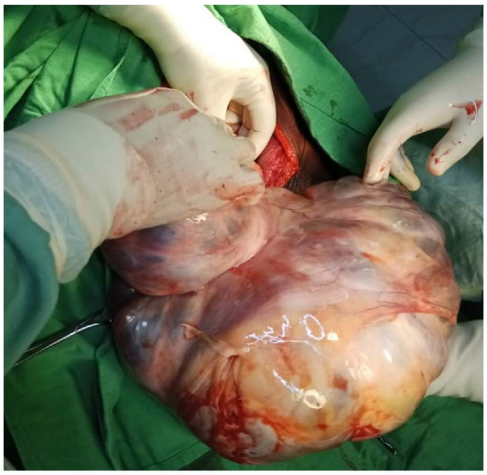

Figure 1. Exteriorization of the large cystic mass, showing a smooth surface with lobulated contours.

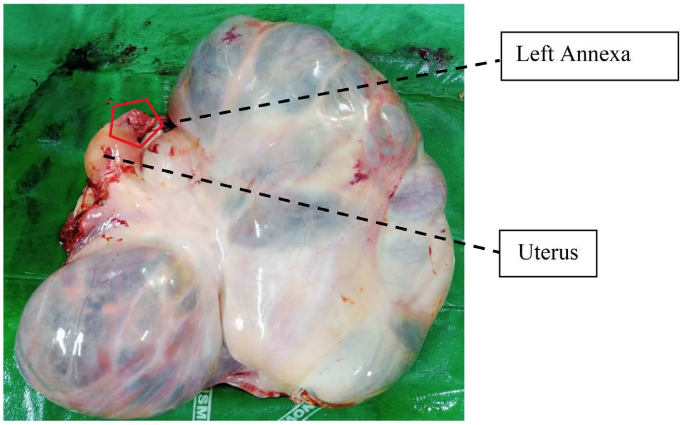

Figure 2. Posterior surface of the large multiloculated ovarian cystic mass.

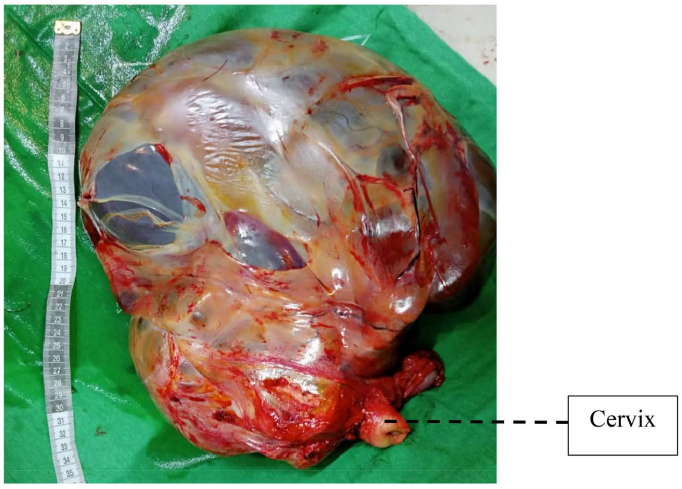

Figure 3. Anterior surface of the mass.

3. Discussion

Giant ovarian cystadenofibromas are exceptionally rare entities, particularly in postmenopausal and elderly women, where any adnexal mass is associated with an increased suspicion of malignancy. In women over 60 years, the probability that an adnexal mass is malignant reaches 30% - 60%, compared to less than 10% in premenopausal women [10]. This high baseline risk often guides clinicians toward aggressive diagnostic and therapeutic strategies. In our 82-year-old patient, the unusual combination of advanced age, massive abdominal distension, and a multilobulated cystic mass strongly raised the possibility of ovarian cancer.

Cystadenofibromas themselves are benign epithelial tumors accounting for less than 1% of all ovarian neoplasms [11]. They are generally small, asymptomatic, and discovered incidentally. Giant presentations defined as diameter > 10 cm are extremely rare, with only isolated case reports in the literature, usually involving younger women [12] [13]. In postmenopausal women, such giant benign tumors are exceptional, and their radiologic appearance often mimics borderline or malignant tumors due to their multilocular structure and solid fibrous components [14]. This explains the ORADS-3 classification observed on MRI in our patient, consistent with intermediate malignancy risk.

Symptoms in giant ovarian tumors are usually nonspecific: abdominal distension, early satiety, constipation, or urinary symptoms due to compression, all of which were present in our patient. Similar presentations have been reported in elderly women with giant serous or mucinous cystadenomas [15] [16]. The significant weight loss and cachexia observed in our case may further complicate differentiation from ovarian malignancy, as constitutional symptoms are more typically associated with cancer.

Imaging plays a critical role in the diagnostic process, but even advanced modalities such as MRI often have limited accuracy in differentiating benign fibrous tumors from borderline or malignant lesions. In fact, cystadenofibromas have been described as "MRI pitfalls" because their solid-appearing fibrous components can mimic malignancy on T2-weighted sequences [17]. Tumor markers were within normal limits in our patient, which is reassuring, but their sensitivity remains low in early-stage disease. CA-125, for example, is elevated in only 50% of early ovarian cancers [18]. Therefore, normal tumor markers cannot reliably exclude malignancy in postmenopausal women.

Management of adnexal masses in elderly women requires balancing oncologic safety with surgical risk. Advanced age (>80 years) significantly increases perioperative morbidity due to frailty, cardiovascular comorbidities, and reduced physiological reserve [19]. Our patient presented multiple high-risk factors: hypertension, diastolic dysfunction, mitral regurgitation, and chronic treatment for extrapulmonary tuberculosis. This justified the multidisciplinary approach prior to surgery, consistent with international recommendations for managing complex geriatric gynecologic cases [20].

Despite these risks, surgery remains the gold standard, both for definitive diagnosis and treatment. Most authors recommend complete excision because intraoperative assessment of malignancy can be unreliable and cyst rupture may compromise staging if cancer is present [21]. In our case, exploratory laparotomy allowed complete removal of three multilobulated adherent cysts. The decision to perform a hysterectomy also aimed to rule out potential concomitant gynecologic pathologies, particularly occult endometrial hyperplasia or carcinoma and cervical dysplasia, which could not be reliably excluded preoperatively given the patient's age, clinical presentation, and limited imaging visibility due to the massive pelvic mass.

Histopathological examination confirmed a benign serous cystadenofibroma, consistent with the rare cases described in the literature [12] [14]. Postoperative anemia in our patient is a common complication in fragile elderly patients undergoing major abdominal surgery; early transfusion contributed to a favorable recovery.

This case highlights three key issues echoed in recent studies:

1) Diagnostic uncertainty in elderly women: imaging and biomarkers often fail to distinguish benign from malignant masses. This case also highlights the preoperative difficulty in distinguishing mucinous from serous ovarian tumors on imaging: although the initial ultrasound suggested a mucinous tumor due to its multilocular appearance and thick septations, the final histopathological examination confirmed a serous tumor, underscoring the limitations of ultrasound morphological criteria [14] [17] [18].

2) Gigantism of benign tumors is rare but dangerous, primarily due to mechanical compression and nutritional impact rather than malignant transformation [12] [15].

3) The need for individualized, multidisciplinary perioperative planning is crucial in very elderly patients to reduce morbidity and mortality [19] [20].

Overall, the rarity of giant ovarian cystadenofibroma in an octogenarian underscores the need for vigilance in evaluating adnexal masses after menopause, where the therapeutic balance must integrate both oncologic prudence and geriatric considerations.

4. Conclusion

The clinical case we report highlights the complex interplay of diagnostic and therapeutic challenges posed by a giant ovarian cystadenofibroma in a polymorbid octogenarian patient. Although cystadenofibroma is a benign histological entity, its giant presentation in this age group is rare and raises major clinical concerns. From a diagnostic standpoint, conventional imaging and tumor markers proved insufficient to definitively exclude malignancy preoperatively, a common pitfall that often justifies an aggressive surgical approach. The decision to proceed with surgery was crucial and required a thorough assessment of both benefits and risks. Poorly controlled hypertension and, notably, active extrapulmonary tuber-

culosis significantly increased the anesthetic and postoperative risk. The primary objective must remain the preservation of the patient's quality of life, in this case, laparoscopy was not considered appropriate due to the massive size of the tumor, which exceeded the limits generally accepted for safe minimally invasive removal and carried a higher risk of intraoperative rupture; therefore, laparotomy was preferred to ensure adequate exposure and oncologic safety.

Conflicts of Interest

The authors declare no conflict of interest.

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