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Giant Mesenteric Extrauterine Leiomyoma Mimicking an Ovarian Malignancy in a Postmenopausal Woman: A Case Report

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Abstract

A 56-year-old postmenopausal woman presented with recurrent right-sided lower abdominal pain of approximately eight to 10 years' duration and progressive right lower abdominal swelling for five years. She had undergone five previous caesarean sections but had no history of myomectomy, hysterectomy, or ovulation-induction treatment. Computed tomography demonstrated a large, well-defined, lobulated complex right adnexal mass measuring 11.87 × 14.59 × 24.36 cm, with cystic and moderately enhancing solid components and distortion of the adjacent urinary bladder. The uterus was normal in size with no identifiable uterine mass. Ultrasonography classified the lesion as an Ovarian-Adnexal Reporting and Data System (O-RADS) category 4 complex right adnexal mass considered likely to be ovarian in origin. Serum CA-125 was 27.9 U/mL. Exploratory laparotomy was performed because of the patient's postmenopausal status, large tumour size, and complex imaging features. Intraoperatively, the uterus and ovaries were not the apparent source of the mass. Instead, a large pedunculated, partly cystic tumour was identified arising from the mesentery and abutting the caecum without involvement of the caecal wall. The mass was completely resected. Histopathological examination demonstrated a benign smooth-muscle tumour most consistent with leiomyoma. The postoperative course was uncomplicated, and the patient was discharged on postoperative day 7. At follow-up, she remained asymptomatic with a well-healed wound. This case demonstrates the diagnostic challenge posed by a large mesenteric leiomyoma presenting as an apparent ovarian mass in a postmenopausal woman. Surgical exploration and histopathological examination established the diagnosis when the anatomical origin of the mass could not be confidently determined preoperatively.

Categories: Obstetrics/Gynecology, Pathology
Keywords: adnexal mass, case report, extrauterine leiomyoma, mesenteric tumor, ovarian malignancy, parasitic leiomyoma, postmenopausal

Introduction

Leiomyomas are benign tumours composed predominantly of smooth-muscle cells and are among the most common tumours of the female genital tract. They are usually located within the uterus, although extrauterine leiomyomas may occur at a variety of anatomical sites. These include the broad ligament, ovary, retroperitoneum, peritoneum, omentum, and mesentery.

Parasitic leiomyoma is a particularly unusual form of extrauterine leiomyoma. It traditionally refers to a leiomyoma that becomes detached from its uterine origin and subsequently establishes an independent blood supply from surrounding structures. The condition has received increased attention following the widespread use of laparoscopic morcellation during myomectomy and hysterectomy [1]. Nevertheless, a systematic review of 274 reported patients found that 56% had no history of previous uterine surgery, demonstrating that extrauterine/parasitic leiomyomatous lesions are not exclusively iatrogenic [2]. Note that there can be a de novo development of an extrauterine smooth muscle tumour, which can give rise to an extrauterine leiomyoma different from parasitic extrauterine leiomyoma as explained above. De novo smooth muscle tumours are structurally identical to uterine fibroid/leiomyoma.

The clinical presentation of these lesions is variable and often nonspecific. Abdominal pain, abdominal distension, and a palpable mass are commonly reported. Their unusual location and variable imaging appearances may result in diagnostic confusion with ovarian neoplasms, gastrointestinal stromal tumours, and other intra-abdominal malignancies. Recent reports continue to describe mesenteric parasitic leiomyomas initially suspected to be gastrointestinal or other malignant tumours [3].

The diagnostic challenge becomes particularly important in postmenopausal women because a newly identified large complex adnexal or abdominal mass requires careful evaluation for malignancy. The Ovarian-Adnexal Reporting and Data System (O-RADS) ultrasound classification categorises O-RADS 4

lesions as an ovarian or adnexal mass having an intermediate estimated risk of malignancy, and the system specifically recognises the importance of menopausal status, specialist imaging assessment, and, where appropriate, MRI and tumour markers in management [4]. Importantly, the O-RADS guidance notes that a normal CA-125 should not provide false reassurance in a postmenopausal woman with an O-RADS category 4 or 5 lesion [4].

We present a case of a giant mesenteric extrauterine leiomyoma in a postmenopausal woman that was radiologically considered a complex right ovarian mass and clinically managed as a possible ovarian malignancy. The tumour was found at laparotomy to be a pedunculated mesenteric mass and was subsequently identified histologically as a benign smooth-muscle tumour most consistent with leiomyoma.

Case Presentation

Case report methodology

This manuscript was prepared as a single-patient clinical case report using the patient's hospital records, preoperative imaging and laboratory investigations, operative findings, postoperative records, and histopathology report available to the treating team. The report was structured in accordance with the CARE (CAse REport) reporting framework [5,6], which promotes transparent reporting of patient information, diagnostic assessment, therapeutic intervention, follow-up, and outcomes. Patient-identifying information has been completely excluded from this manuscript.

Patient information

A 56-year-old postmenopausal woman presented to the gynaecology service with recurrent lower abdominal pain and progressive abdominal swelling. She had been postmenopausal for approximately eight years.

The patient had experienced recurrent abdominal pain for approximately eight to 10 years. The pain was insidious in onset, dull in character, predominantly located in the right middle and lower abdominal regions and radiating to the back. There was no identified aggravating factor, and previous episodes were relieved by over-the-counter analgesics.

Approximately five years before presentation, she noticed a swelling in the right lower abdomen. The swelling progressively increased in size. She did not have vaginal bleeding, abnormal vaginal discharge, fever, weight loss, anorexia, vomiting, altered bowel habit, or lower urinary tract symptoms.

She had no history of ovulation-induction medication and no known personal or family history of ovarian, colorectal or endometrial malignancy. Her medical history was significant for hypertension treated with amlodipine 10 mg daily. She had no known drug allergies.

She had five previous pregnancies, all carried to term and delivered by caesarean section between 1990 and 2000. There was no documented history of myomectomy or hysterectomy, and never had any hormone replacement therapy.

Clinical findings

The patient weighed 79 kg and was 1.63 m tall, with a body mass index of 29.73 kg/m^2. She was afebrile, not pale, anicteric, acyanosed, and clinically well hydrated. Her pulse rate was 86 beats/min and regular, while her blood pressure was 146/83 mmHg.

Abdominal examination demonstrated abdominal distension with right lumbar fullness. A firm right-sided abdominal mass approximately equivalent to a 26-week pregnancy was palpable. The mass was mobile from side to side and non-tender. It was not apparently attached to the overlying or underlying structures. The upper border could be reached, but the lower border could not be palpated. There was no clinically demonstrable ascites.

Pelvic examination revealed a healthy-looking cervix and a normal-sized retroverted uterus. A large non-tender right adnexal mass was palpable, while the left adnexa was free.

The initial clinical diagnosis was a suspected right ovarian malignancy, with uterine leiomyoma included as a differential diagnosis.

Diagnostic assessment

Abdominopelvic computed tomography was performed using a standard three-phase imaging protocol with oral, rectal, and intravenous contrast. Five-millimetre-thick serial axial images were acquired from the lung bases to the pelvis, with sagittal, coronal, and three-dimensional reconstructed images generated and reviewed using soft-tissue and bone algorithms. The scanogram was unremarkable.

The scan demonstrated a huge, well-defined, lobulated, oval complex mass in the right adnexal region, containing cystic and moderately enhancing solid components. The upper border of the mass extended to the level of the inferior segment of the L3 vertebral body. It measured 11.87 × 14.59 × 24.36 cm, with an estimated volume of 2,206.4 cm^3. The mass indented and distorted the outline of the contiguous dome of the urinary bladder while maintaining distinct boundaries from the surrounding structures. No left adnexal mass or collection was identified.

The uterus was normal in size, non-gravid, and retroverted, measuring 7.10 × 3.54 × 4.88 cm, with homogeneous myometrial density and a smooth outline. No endometrial fluid collection or uterine mass was seen. The urinary bladder had normal wall thickness, with no intravesical mass or cystolith.

The liver was enlarged, with a craniocaudal span of 18.5 cm, but demonstrated homogeneous parenchymal density and a smooth outline. No focal hepatic lesion or perihepatic fluid collection was identified, and the hepatic vasculature was normal. The gallbladder had normal configuration, wall thickness, and biliary fluid content, with no mass, inflammation, or calculus. The intrahepatic and extrahepatic biliary radicles were normal, with no evidence of biliary obstruction or mass.

The pancreas and spleen were normal in size, parenchymal density, and outline, with no focal lesion or collection. No pancreatic duct abnormality was identified. The stomach was optimally distended, with normal wall thickness, well-defined perigastric fat planes, and an unremarkable gastroesophageal junction. The small and large bowel were normal in calibre and wall thickness, with no evidence of bowel mass, inflammation, or obstruction. The bowel mesentery was described as normal, with no reported fat stranding, mass, or collection apart from the right adnexal mass described above. There was no evidence of acute appendicitis or related complications. The adrenal glands were normal.

Both kidneys were orthotopic and normal in alignment, outline, position, and shape. The right kidney measured 10.81 × 4.26 cm and the left measured 11.02 × 4.30 cm. Both demonstrated prompt and symmetrical contrast enhancement.

Abdominopelvic ultrasonography demonstrated an extensive heterogeneous mass containing solid and cystic components, extending predominantly from the right side of the pelvis to the epigastrium and measuring 22.2 × 12.5 × 9.0 cm (longitudinal × transverse × anteroposterior dimensions). Moderate vascular flow was demonstrated within the mass on colour Doppler interrogation. The ovaries were not visualised separately from the mass. The uterus measured 5.9 × 3.0 cm (longitudinal × anteroposterior dimensions) and showed a fairly smooth outline and homogeneous parenchymal echotexture, with a central endometrial stripe. The urinary bladder had normal wall thickness and clear luminal content.

The liver measured 16.7 cm in craniocaudal span at the midclavicular line and demonstrated a smooth outline and normal parenchymal echotexture, with no focal mass or intrahepatic ductal dilatation. The gallbladder, pancreas, and para-aortic region appeared normal. Both kidneys were normal in position, size, and echogenicity, measuring 10.7 × 4.1 cm on the right and 11.7 × 4.9 cm on the left, with preserved corticomedullary differentiation and no evidence of bilateral backpressure changes or calculi. The spleen was normal in size, measuring 12.1 cm, with normal echotexture and outline. No ascites or lymphadenopathy was identified.

The sonographic impression was that of a complex adnexal mass, likely of ovarian origin, classified as O-RADS 4 [4].

Abdominopelvic MRI was recommended for further evaluation; however, the patient could not afford the investigation, and no MRI result is documented in the available clinical record.

The laboratory investigations performed at presentation are summarised in Table *1*.

Laboratory parameter	Patient value	Unit	Reference range [7]
Haemoglobin	12	g/dL	10.1-14.9
Haematocrit	41	%	30.0-44.0
Platelet count	379	$\times 10^9$/L	132.0-477.0
White blood cell count	5	$\times 10^9$/L	4.0-11.0
Sodium	140	mmol/L	134.0-145.0
Potassium	3.5	mmol/L	3.5-5.5
Chloride	102	mmol/L	96.0-106.0
Urea	2.4	mmol/L	1.7-9.1
Creatinine	85	µmol/L	68.0-102.0
Total bilirubin	11	µmol/L	3.4-17.0
Alanine aminotransferase (ALT)	8	IU/L	3.0-25.0
Aspartate aminotransferase (AST)	12	IU/L	5.0-18.0
Conjugated bilirubin	2.4	µmol/L	0.0-5.0
Alkaline phosphatase (ALP)	52	IU/L	21.0-92.0
CA-125	27.9	U/mL	0.0–35.0

TABLE 1: Laboratory investigations at presentation.

CA-125 was within the laboratory reference range. Screening for HIV, hepatitis B surface antigen, and hepatitis C was negative. Urinalysis was essentially normal, and electrocardiography showed sinus rhythm. Cardiology review subsequently confirmed that the patient was fit for surgery.

The O-RADS classification was clinically relevant because O-RADS 4 corresponds to an intermediate risk category. The original American College of Radiology (ACR) O-RADS consensus system defines category 4 as an estimated malignancy risk of 10% to <50% and recommends specialist assessment or appropriate referral before removal [4].

In this patient, the combination of postmenopausal status, very large tumour size, complex solid-cystic appearance, and presumed adnexal origin justified operative evaluation despite the normal CA-125.

The ultrasound images are presented in Figure *1*.

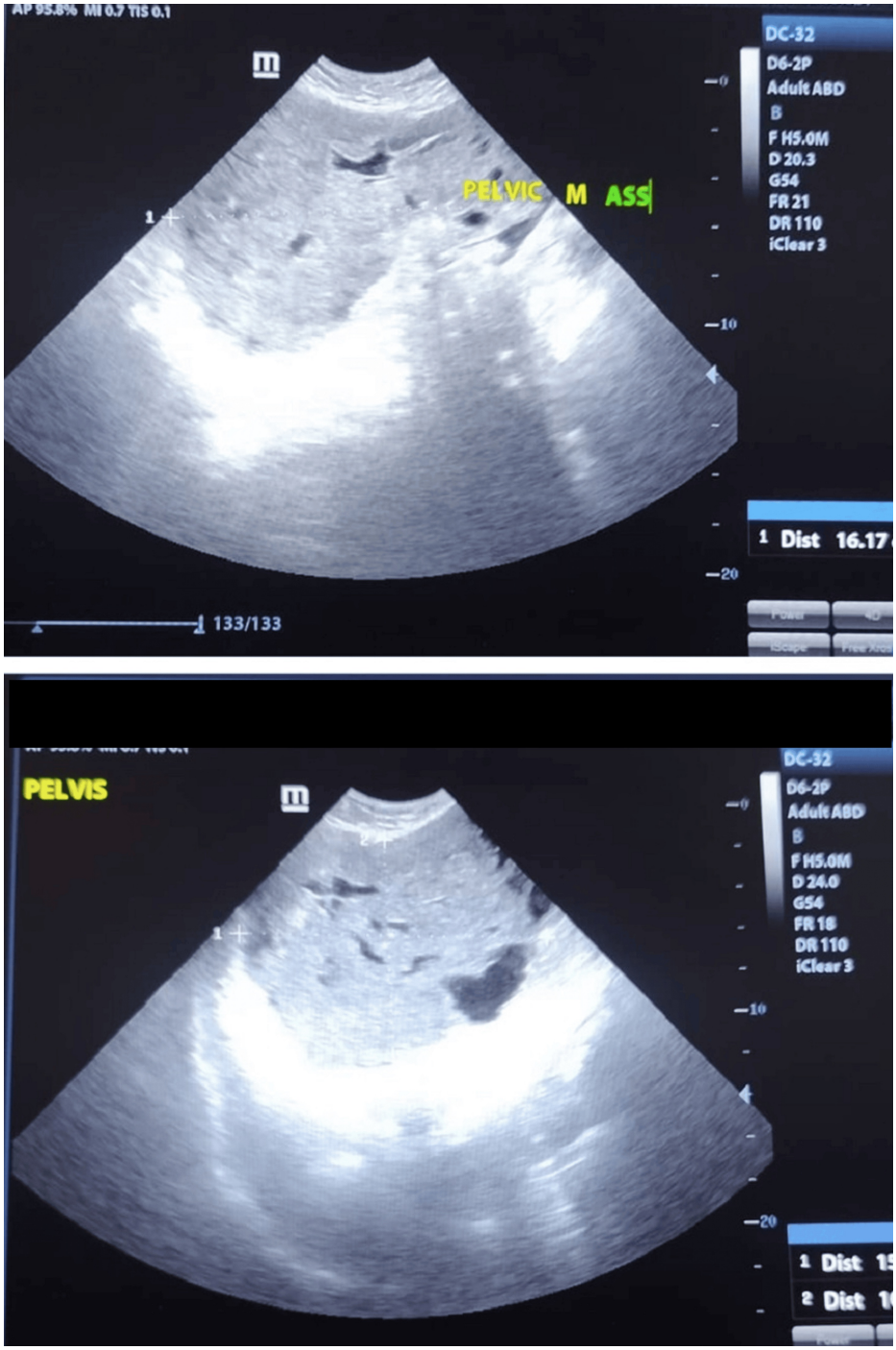


FIGURE 1: Ultrasound images.

Abdomino-pelvic ultrasound images showing an extensive heterogeneous mass with cystic and solid components, extending predominantly from the right side of the pelvis to the epigastrium.

Therapeutic intervention

Following counselling regarding the imaging findings, suspected diagnosis, and planned management, the patient consented to exploratory laparotomy. Three units of blood were cross-matched and reserved. The urology and general surgery teams were invited because extensive intra-abdominal adhesions were anticipated in view of the patient's history of five previous caesarean sections.

Exploratory laparotomy was performed in July 2026 under general anaesthesia as a joint procedure involving the gynaecology and general surgery teams.

A midline abdominal incision was made, and the peritoneal cavity was entered. Intraoperative examination

revealed an omental adhesion to the left anterior pelvis. A large pedunculated mass of mixed consistency, with a partly cystic appearance, was identified arising from the mesentery and abutting the caecum. There was no mass involving the caecal wall.

Adhesiolysis was performed, followed by resection of the mesenteric tumour. Adequate haemostasis was achieved, and an abdominal drain was inserted. The abdominal wall was closed in layers. Estimated intraoperative blood loss was 500 mL. The patient's immediate postoperative condition was satisfactory.

The resected specimen was submitted for histopathological examination. Intraoperative evaluation demonstrated a large, lobulated abdominal mass arising from the mesentery (Figures *2*-*5*).



FIGURE 2: Intraoperative photograph showing the large lobulated abdominal mass during exploratory laparotomy.

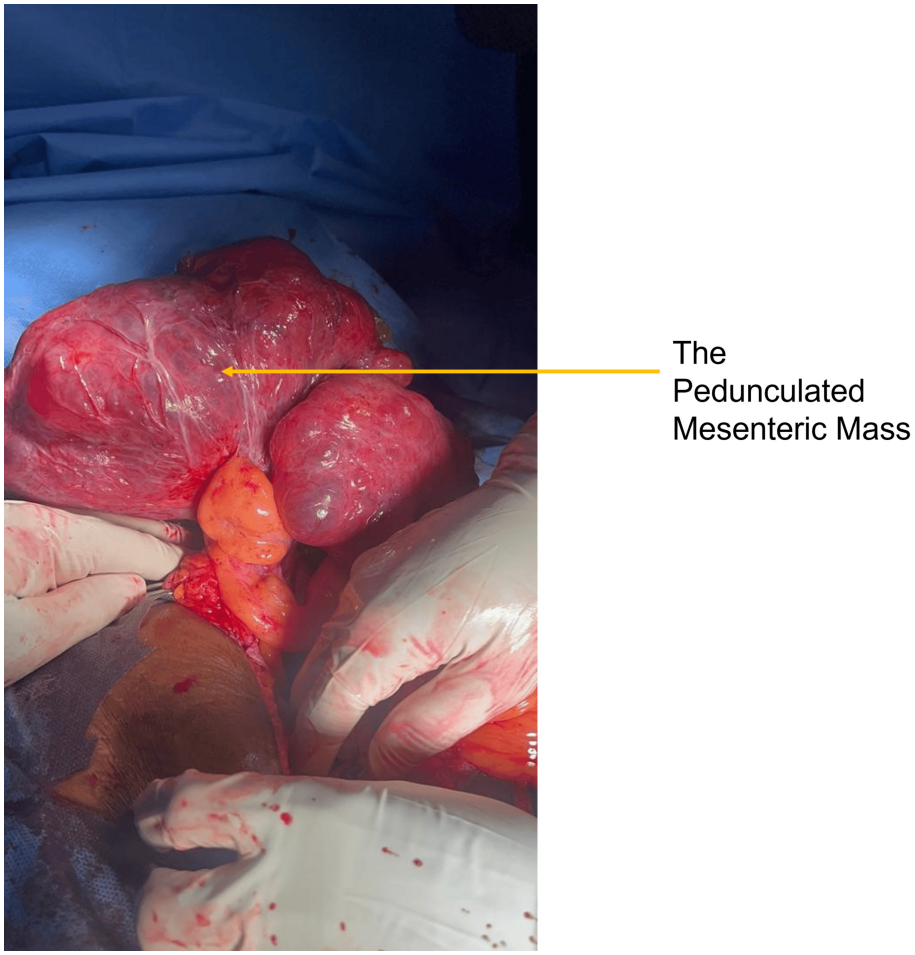


FIGURE 3: Intraoperative photograph showing the pedunculated mesenteric mass and its relationship to adjacent intra-abdominal structures.



FIGURE 4: Intraoperative photograph showing the pedunculated mesenteric mass and its relationship to adjacent intra-abdominal structures.

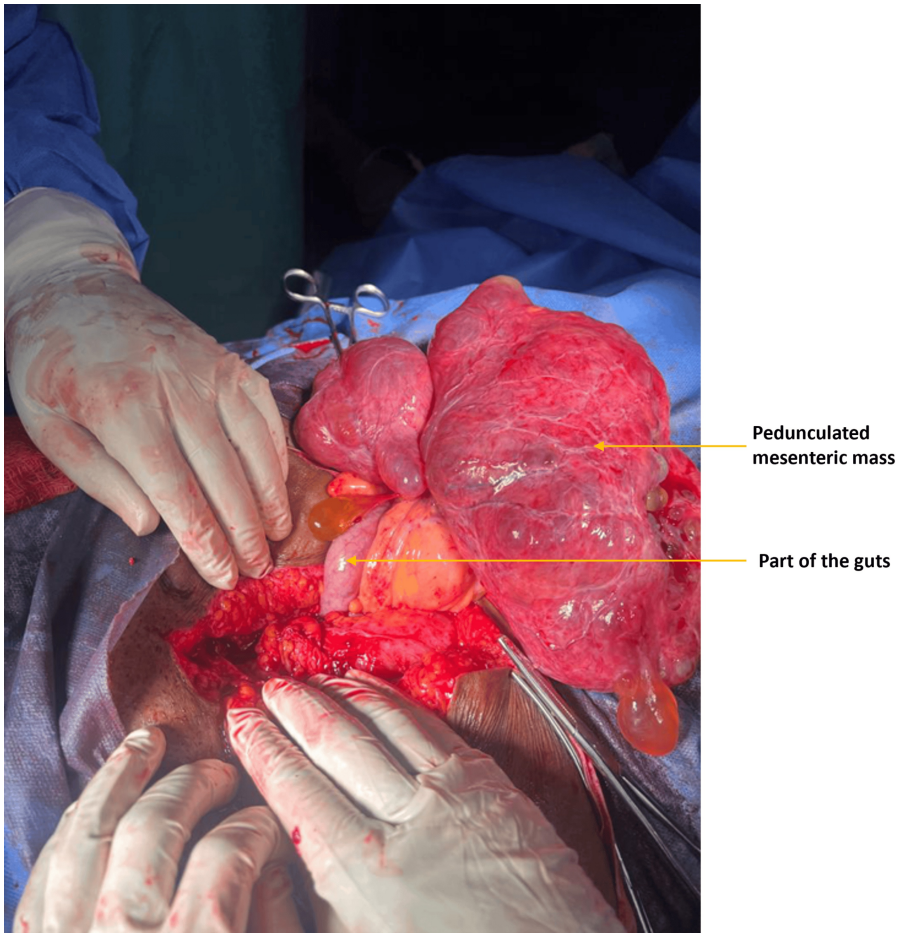


FIGURE 5: Intraoperative photograph showing the pedunculated mesenteric mass and its relationship to adjacent intra-abdominal structures.

The histological images are presented in Figures *6*, *7*.

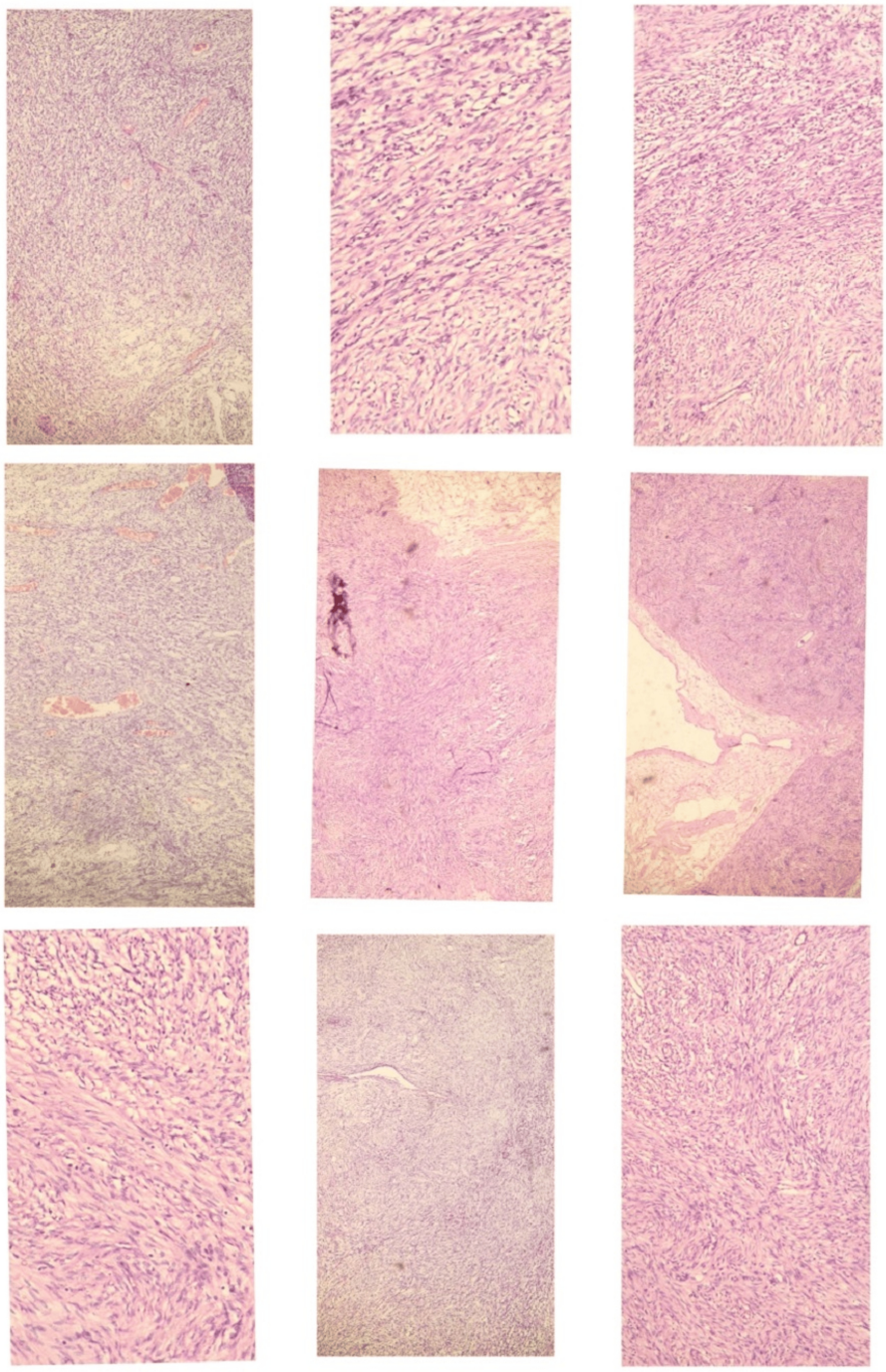


FIGURE 6: Histological images.

Images of the histological preparation.

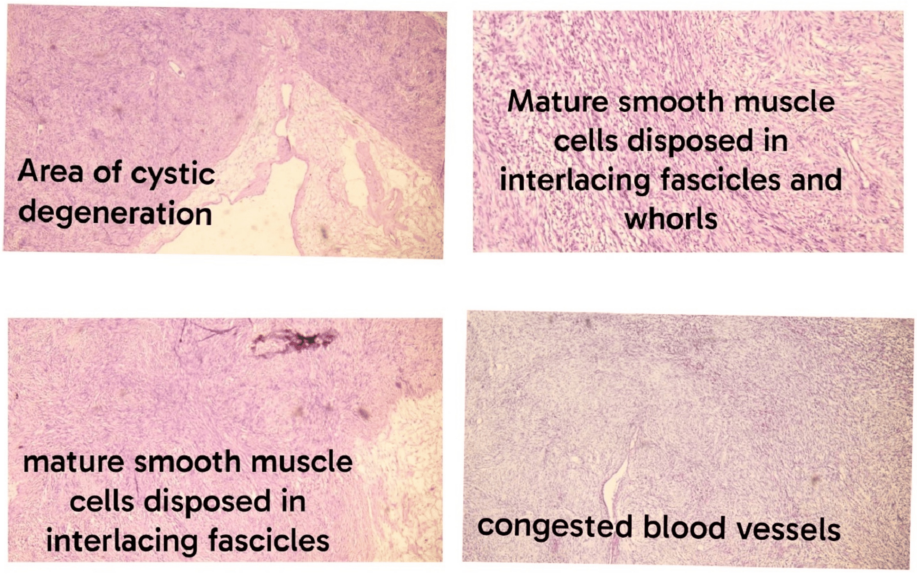


FIGURE 7: Histological images.

Photomicrograph of the excised extrauterine mesenteric mass showing mesenchymal neoplasms characterised by spindle cells having cigar-shaped nuclei and scanty to moderate eosinophilic cytoplasm.

Postoperative course and outcome

Postoperatively, the patient's vital signs were closely monitored. She received intravenous fluids, ceftriaxone, tinidazole, and analgesia. Enoxaparin was subsequently administered for thromboprophylaxis. Fluid input and output remained satisfactory.

On postoperative day 1, she was clinically stable without significant complaints. She had not yet passed flatus or stool. The abdominal drain remained inactive.

On postoperative day 2, she remained stable, and her postoperative packed cell volume was 40%. The drain was removed.

By postoperative day 3, bowel sounds were present and normoactive. Graded oral intake was introduced, and the urinary catheter was removed.

From postoperative day 4 onward, the patient's general condition and vital signs remained satisfactory. Oral antibiotics and analgesics were commenced on postoperative day 5.

By postoperative day 7, she had made an uneventful recovery. The sutures were removed, and she was discharged home with follow-up arranged at the gynaecology clinic.

Histopathological examination was performed on the resected intra-abdominal mesenteric mass. The clinical history provided to the pathology department included abdominal pain and progressive abdominal swelling over five years, with examination revealing an approximately 22-week-sized abdominal mass of medium consistency that was freely mobile and not attached to the overlying or underlying structures. Intraoperative findings were also described as showing a huge mesenteric mass.

Macroscopic examination revealed a nodular specimen weighing 1,330 g and measuring 17 × 16 × 10.5 cm. The specimen was predominantly solid with partly cystic areas. Microscopic examination demonstrated a mesenchymal neoplasm composed of spindle cells with cigar-shaped nuclei and scant to moderate eosinophilic cytoplasm. The cells were arranged in interlacing fascicles and whorls, with focal myxoid and hyaline degenerative changes. The overall histological features were consistent with a benign smooth-muscle tumour, most likely leiomyoma, arising from the intra-abdominal mesenteric mass.

At follow-up, she had no complaints and was clinically well. The wound edges were well apposed. She was followed for one month and subsequently discharged from the gynaecology clinic.

Timeline

A comprehensive summary of the patient's clinical presentation, surgical intervention, and post-operative progress is presented in Table 2.

Date/period	Event
Approximately 8-10 years before presentation	Recurrent dull right-sided lower abdominal pain began
Approximately 5 years before presentation	Progressive right lower abdominal swelling developed
Jul-26	Presentation for medical evaluation
Jul-26	CT demonstrated a 24.36-cm complex right adnexal mass
Jul-26	Ultrasound classified the lesion as O-RADS category 4[4]
Jul-26	CA-125 measured 27.9 U/mL
Jul-26	Admission to the gynaecology ward
Jul-26	Exploratory laparotomy and mesenteric tumour resection
Postoperative days 1-7	Uneventful postoperative recovery
Jul-26	Discharged home
Follow-up	Histology reported benign smooth-muscle tumour most consistent with leiomyoma
One month after surgery	Patient asymptomatic and wound well healed

TABLE 2: Timeline.

Discussion

This case presents a giant extrauterine smooth-muscle tumour arising from the mesentery and mimicking an ovarian malignancy in a postmenopausal woman.

Several aspects make the case clinically noteworthy. First, the tumour was exceptionally large, measuring 24.36 cm in its longest reported dimension, with an estimated volume exceeding 2,200 cm^3. Despite this size, the uterus was normal, and no uterine leiomyoma was identified radiologically. This discrepancy between tumour size and absence of an identifiable uterine primary made an ovarian or other extrauterine neoplasm a reasonable preoperative consideration.

Second, the patient's postmenopausal status increased the clinical concern surrounding a new complex pelvic mass. Ovarian malignancy therefore had to be excluded rather than assuming that a smooth-muscle tumour was responsible. The O-RADS 4 ultrasound classification appropriately placed the lesion in an intermediate-risk category [4]. The subsequent normal CA-125 was reassuring only in a limited sense and could not independently exclude malignancy. The O-RADS consensus specifically warns against interpreting a normal CA-125 as exclusion of malignancy in postmenopausal women with higher-risk adnexal lesions [4].

Third, the operative findings fundamentally changed the anatomical diagnosis. The tumour was not described as arising from the ovary or uterus. Instead, a pedunculated mass was found on the mesentery, abutting the caecum without involvement of the caecal wall. The tumour was successfully resected without reported bowel resection.

The combination of an extrauterine location, pedunculated morphology, benign smooth-muscle histology, and absence of a current uterine mass is compatible with a parasitic leiomyoma. However, the terminology requires some caution. A strict diagnosis of a spontaneously developed parasitic leiomyoma generally requires evidence that the tumour is completely separate from the uterus and has established an independent extrauterine vascular supply. A recent review has emphasised that the literature has sometimes grouped several biologically different entities under the term "spontaneous parasitic leiomyoma," including primary extrauterine leiomyomas and pedunculated subserosal tumours [8].

In the present case, the available operative report documents a pedunculated mesenteric mass but does not document the vascular pedicle or demonstrate a previous uterine tumour from which the mass detached. Therefore, the most defensible interpretation is that this was a giant extrauterine leiomyoma with features compatible with a parasitic leiomyoma, rather than definitively establishing its developmental pathway.

The absence of previous myomectomy or hysterectomy is also relevant. Power morcellation is an established mechanism for iatrogenic parasitic leiomyoma, but the systematic literature indicates that a substantial proportion of reported parasitic leiomyomas occur without previous uterine surgery [2,8]. This case therefore adds to the group of unusual extrauterine leiomyomatous tumours occurring in patients without the conventional surgical history.

The patient's five previous caesarean sections may have contributed to the formation of intra-abdominal adhesions, which were indeed encountered during surgery. However, there is insufficient evidence to establish a causal relationship between the caesarean sections and the development of the mesenteric tumour. The association should therefore not be inferred.

Another important consideration is the histopathological diagnosis. The available report describes an overall benign smooth-muscle tumour most likely to represent leiomyoma. This supports a benign leiomyomatous diagnosis, but the available documentation does not provide the detailed microscopic criteria or immunohistochemical profile. In a publication-quality report, the full pathology report should ideally be obtained, including information on cellular atypia, mitotic activity, and tumour necrosis. If immunohistochemistry was performed, the relevant markers should also be reported.

This distinction is important because an extrauterine smooth-muscle tumour in a postmenopausal woman should not be labelled benign solely because it resembles a leiomyoma grossly. Histopathological evaluation as well as immunohistochemical analysis are necessary to distinguish benign leiomyoma from other smooth-muscle and mesenchymal neoplasms [9,10].

The postoperative outcome was favourable. Complete surgical resection was achieved; there was no reported bowel injury or need for bowel resection, estimated blood loss was 500 mL, and the patient recovered sufficiently to be discharged on postoperative day 7. At one-month follow-up, she remained asymptomatic with a well-healed wound.

The case also illustrates why unusual extrauterine leiomyomas remain important diagnostic considerations despite their rarity. A large mesenteric mass can imitate ovarian, gastrointestinal, or other malignant tumours, and the final diagnosis may depend on direct anatomical assessment and histopathology.

Literature review

Extrauterine and Parasitic Leiomyomas

Parasitic leiomyomas are rare extrauterine smooth-muscle tumours. Their reported locations include the peritoneum, greater omentum, mesentery, retroperitoneum, and other extrauterine sites. A systematic review of 103 publications involving 274 patients found that the mean age was 40 years, with an age range extending to 79 years [2]. Interestingly, 154 of the 274 patients had no previous uterine surgery, while 120 had undergone myomectomy or hysterectomy; 39% had a history of power morcellation [2]. Abdominal pain was the most frequently reported symptom.

This observation is important in the present case because the patient had no history of myomectomy or hysterectomy. Her previous pelvic operations consisted of five caesarean sections. Thus, the case does not fit the classic iatrogenic morcellation-associated pathway.

Pathogenesis

Three broad mechanisms have been discussed in the literature: iatrogenic implantation following tissue fragmentation, spontaneous parasitic development following detachment of a pedunculated uterine leiomyoma, and primary extrauterine development.

Iatrogenic parasitic leiomyomas may occur when fragments of leiomyoma produced during morcellation implant on peritoneal or intra-abdominal surfaces and subsequently establish vascular connections [1]. Recent reports continue to document mesenteric parasitic leiomyomas following previous laparoscopic hysterectomy or myomectomy [11].

Spontaneous lesions have also been reported. One proposed mechanism is torsion and detachment of a pedunculated subserosal leiomyoma, followed by revascularisation from neighbouring structures. Another proposed mechanism is de novo development of an extrauterine smooth-muscle tumour.

A 2019 report described a huge primary parasitic leiomyoma in a 58-year-old postmenopausal Nigerian woman without previous surgery, with the tumour attached to the omentum and histologically confirmed as leiomyoma [12].

The current case has similarities to that report: both involved postmenopausal women in Nigeria, both had

very large extrauterine leiomyomatous masses, and neither had the typical history of laparoscopic morcellation. However, the present tumour was identified intraoperatively as arising from the mesentery rather than the greater omentum and initially mimicked an ovarian mass radiologically.

Recent literature also demonstrates that mesenteric location remains diagnostically challenging. A 2024 case described a 21 × 12 × 15 cm parasitic leiomyoma involving the sigmoid mesentery after total laparoscopic hysterectomy [11], while a 2026 report described a small-bowel mesenteric parasitic leiomyoma initially suspected to be a gastrointestinal stromal tumour [3].

Diagnostic Challenge in the Present Case

The principal diagnostic difficulty was the apparent right adnexal location of the tumour. CT demonstrated a large complex mass adjacent to the right adnexa, and ultrasonography classified it as O-RADS 4 and considered ovarian origin likely.

This diagnostic phenomenon is consistent with the wider literature. Extrauterine leiomyomas can be difficult to distinguish from malignant intra-abdominal tumours on imaging, particularly when large, degenerative, or located away from the uterus. A 2024 report of a greater omental parasitic leiomyoma similarly noted difficulty determining the nature of the mass using clinical and imaging findings alone [13].

O-RADS 4 lesions have an intermediate risk of malignancy, with a pooled malignancy rate of approximately 43.5% in a systematic review and meta-analysis [4,14]. The ACR consensus guidance places the estimated risk for O-RADS 4 lesions between 10% and <50% and recommends appropriate specialist evaluation [4]. Importantly, the same guidance notes that a normal CA-125 cannot exclude malignancy in a postmenopausal woman with an O-RADS category 4 or 5 lesion [4].

Thus, the normal CA-125 of 27.9 U/mL did not eliminate the need for definitive evaluation. The eventual intraoperative finding demonstrates an additional limitation: the lesion was not ovarian in origin but was instead a pedunculated mesenteric mass.

Strengths and limitations

The principal strength of this case is the combination of an unusual tumour location, very large tumour size, postmenopausal presentation, absence of previous myomectomy or hysterectomy, and preoperative radiological suspicion of ovarian malignancy. The case also benefits from correlation between clinical presentation, imaging, operative findings, histopathology, and postoperative outcome.

However, several limitations should be acknowledged. First, MRI was recommended after ultrasonography, but no MRI result is available in the clinical record. Second, the available pathology report is limited to the conclusion that the lesion was a benign smooth-muscle tumour most likely representing leiomyoma; detailed microscopic findings and immunohistochemistry are not documented. Third, the operative report does not document the vascular supply to the tumour or a residual connection to the uterus, limiting certainty regarding whether the lesion represents a true spontaneously developed parasitic leiomyoma, another form of extrauterine leiomyoma, or a detached pedunculated leiomyoma. Finally, follow-up documented in the available record extends to only one month.

Conclusions

A giant extrauterine leiomyoma can closely mimic an ovarian malignancy in a postmenopausal woman, particularly when it presents as a large complex solid-cystic abdominopelvic mass. The absence of a uterine mass and the absence of previous myomectomy or hysterectomy do not exclude a parasitic or other extrauterine leiomyomatous tumour. In this case, preoperative imaging suggested a right ovarian neoplasm, while surgical exploration revealed a pedunculated mesenteric tumour and histopathology demonstrated a benign smooth-muscle tumour most consistent with leiomyoma.

The case emphasises the importance of considering unusual extrauterine leiomyomas in the differential diagnosis of large abdominopelvic masses, while avoiding premature assumptions about tumour origin based solely on imaging. Definitive diagnosis requires correlation of radiological, operative, and histopathological findings.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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Acquisition, analysis, or interpretation of data: Malarchy E. Nwankwo

Drafting of the manuscript: Malarchy E. Nwankwo , Arinze C. Ikeotuonye, Richard O. Egeonu, James E. John, Emmanuel I. Ogumu

Critical review of the manuscript for important intellectual content: Malarchy E. Nwankwo

Supervision: Malarchy E. Nwankwo

Disclosures

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