Is It a False Pregnancy?
An Unusual Case of a Distended Abdomen

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Abstract

Carcinosarcoma, a malignant mixed Mullerian tumor (MMMT) of the ovary, is a rare, aggressive cancer with two distinct cellular characteristics: carcinoma and sarcoma. Because patients with this cancer often have no symptoms, more than half are diagnosed at an advanced stage. When present, symptoms may include abdominal or pelvic pain, bloating or swelling of the abdomen, early satiety, or other gastrointestinal problems. The cause of ovarian carcinosarcoma is not yet widely accepted, and treatment usually consists of surgery to remove the tumor and chemotherapy. The long-term prognosis is poor, with a reported 5-year survival rate of about 28%. This case study aims to bring attention to this rare type of cancer.

In this case, a 72-year-old Caucasian female presented with abdominal distension and discomfort located in the right lower quadrant for the last seven days described as "achy" without relieving or aggravating factors. The patient noted no back pain, chest pain, dyspepsia, dysphagia, flank pain, hematemesis, jaundice, melena, hematochezia, or nausea. The patient was postmenopausal, with her last menstrual period occurring at 53 years. The patient reported a known history of two Cesarean sections and a bilateral tubal ligation. Physical examination revealed fullness of the lower right abdomen with some distention, tenderness to palpation in the right lower quadrant with a firm mass-like structure palpated, with a negative rebound, psoas, Rovsing's, and obturator signs, with slight fluid wave shift appreciated.

The patient was initially evaluated with laboratory testing, including a CBC, CMP, UA, lipase, CA-125, and CT scan of the abdomen and pelvis. Laboratory evaluation was remarkable for the CA-125 returning elevated at 228. The following day, the abdomen and pelvis CT scan was completed, revealing an enlarged, 19 cm infiltrative pelvic mass with areas of necrosis, a 5.5 cm left upper quadrant mass, and metastatic implants with moderate ascites. Additional findings included peritoneal thickening and nodularity suspicious for peritoneal carcinomatosis with mesenteric and pelvic lymphadenopathy, highly concerning for metastatic disease.

The patient was informed of results in which she inquired if the findings on the imaging were a "false pregnancy"; it was communicated that, unfortunately, imaging appeared most consistent with malignancy and was subsequently referred to gynecology oncology for further evaluation. Gynecology oncology recommended she undergo a prospective CT scan of the chest for staging purposes and targeted biopsy for tissue diagnosis. CT scan of the chest noted prominent cardiophrenic lymph nodes potentially representing nodal metastatic disease.

The following day patient underwent a CT-guided biopsy of the left upper quadrant mass and paracentesis successfully without complication. Ascites fluid results noted malignant cells consistent with adenocarcinoma. In addition, the left upper quadrant mass biopsy revealed a biphasic malignant tumor, most consistent with carcinosarcoma.

Medical oncology recommended initiation of chemotherapy followed by interval debulking surgery; however, the patient succumbed to her diagnosis prior to the initiation of chemotherapy. This case exemplifies the unexpected nature of abdominal pain with distension, specifically the aggressiveness of ovarian carcinosarcoma. In addition, this patient encounter embodies the importance of remaining diligent in our goal to achieve early diagnosis and improved prognosis and outcomes.

Case Presentation

Setting: Outpatient Internal Medicine Office

Patient Demographics: 72-year-old, Caucasian female

Chief Complaint & History of Present Illness:
- Abdominal distension and discomfort located in the right lower quadrant for the last seven days described as "achy"; no back pain, change in bowel habits, chest pain, diarrhea, dysphagia, flank pain, hematemesis, hematochezia, jaundice, melena, nausea, or odynophagia. Positive for constipation
- Associated Symptoms: As above
- Aggravating Factors: None
- She had not tried anything OTC for her symptoms
- Patient denied any urinary changes, cough, shortness of breath, dizziness, headaches, nor any new medications, food changes, or recent travel. LMP: At age 53 years

Past Medical History:
- Hypothyroidism
- 2x Cesarean section
- Bilateral tubal ligation

Medications:
- Levothyroxine, 100 mcg orally daily

Social History:
- Never a cigarette smoker
- No alcohol beverage consumption
- No illicit drug abuse

Family Medical History:
- Patient was adopted; none that she is aware of

Physical Examination:
- Vital Signs:
  - Height: 5'4"
  - Weight: 164 pounds
  - BMI: 28.2 kg/m^2
  - Blood Pressure: 108/78 mmHg
  - Pulse: 98 bpm
  - Respirations: 18/minute
  - Temperature: 97.8 degrees Fahrenheit
- HEENT:
  - Head: Normocephalic and atraumatic.
    Eyes: Extraocular movements intact.
    Conjunctiva/sclera: Conjunctivae nonerythematous.
    Pupils: Pupils are equal, round, and reactive to light.
    Neck: Normal range of motion and neck supple with no masses or LAD appreciated
- Cardiovascular:
  - Rate and Rhythm: Normal rate and regular rhythm.
    Pulses: Normal pulses.
    Heart sounds: Normal heart sounds.
- Pulmonary:
  - Effort: Pulmonary effort is normal.
    Breath sounds: Normal breath sounds.
- Abdominal:
  General: Bowel sounds are normal. Comments: **Fullness of the lower right abdomen with distension. Tenderness to palpation in the RLQ with firm mass-like structure palpated. Negative rebound signs. Negative obturator and Rovsing's sign. Negative psoas sign. Negative Murphy sign. Negative heel tap sign. ?slight fluid wave appreciated.**
- Skin:
  - General: Skin is warm and dry.
    Capillary Refill: Capillary refill takes less than 2 seconds.
- Neurologic:
  - General: No focal deficit present.
    Mental Status: She is alert and oriented to person, place, and time.
- Psychiatric:
  - Mood and Affect: Mood normal. Behavior: Behavior normal. Thought Content: Thought content normal. Judgment: Judgment normal

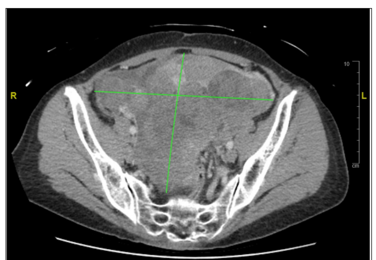
Differential Diagnoses

- Small/Large Bowel Obstruction
- Abdominopelvic mass/malignancy
- Appendicitis/appendiceal mass/torsion
- Ovarian cyst/mass
- Constipation
- Urinary retention
- Hernia
- Uterine leiomyoma
- Others?

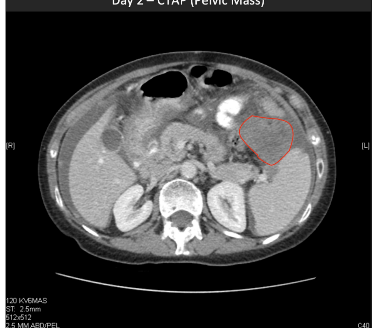
Case Presentation

Course of Care:
- Day 1
  - Labs ordered: **CBC, CMP, Lipase, UA, CA-125** (See results below)
  - **CTAP with contrast ordered**
- Day 2
  - CTAP completed noting a markedly enlarged, **19 cm infiltrative solid pelvic mass with areas of necrosis, a 5.5 cm left upper quadrant mass, and smaller metastatic implants with moderate ascites. Additional findings included peritoneal thickening and nodularity suspicious for peritoneal carcinomatosis with mesenteric and pelvic lymphadenopathy, highly concerning for metastatic disease**
  - Patient contacted and informed of results, in which she inquired if this was ***"a false pregnancy"***
  - It was communicated that, unfortunately, imaging appeared most consistent with malignancy and was subsequently referred to gynecology oncology for further evaluation
- Day 9
  - Seen by **gynecology oncology** who recommended prospective CT scan of the chest for staging purposes and targeted biopsy for tissue diagnosis with interventional radiology
  - CT scan of the chest was completed the same day which noted prominent cardiophrenic lymph nodes potentially representing nodal metastatic disease

UA	Color	Amber		CBC	WBC	7.5		CMP	Na	136
	Appearance	Cloudy			RBC	4.53			K	4.2
	Glucose	Negative			Hgb	13.2			Cl	101
	Bilirubin	Negative			Hct	40			CO2	25
	Ketones	Negative			MCV	88.3			Anion Gap	14
	SG	1.025			MCH	29.1			Glucose	135
	Blood	Negative			MCHC	33			BUN	13
	pH	6.0			RDW	12.8			Creatinine	0.74
	Protein	Negative			Plts	255			GFR	>90
	Urobilinogen	0.2			Neut	75%			Calcium	9.1
	Nitrite	Negative			Lymph	15%			Total Bili	0.5
	Leuk Esterase	Negative			Mono	8%			AST	36
					Eosin	1%			ALT	17
Lipase	123				Baso	1%			Alk Phos	99
									Protein	6.5
CA-125	228	(0-35)							Globulin	3.8
									Albumin	2.7



Day 2 – CTAP (Pelvic Mass)



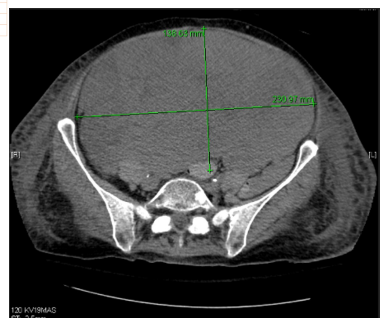
Day 2 – CTAP (LUQ Mass)

- Day 11
  - The following day patient underwent a CT-guided biopsy of the left upper quadrant mass and paracentesis successfully without complication.
  - Ascites fluid results noted malignant cells consistent with adenocarcinoma
  - The left upper quadrant mass biopsy revealed a **biphasic malignant tumor, most consistent with carcinosarcoma.**
- Day 14
  - Patient was seen by **medical oncology** who recommended initiation of chemotherapy followed by interval debulking surgery with gynecology oncology
- Days 28-34
  - Unfortunately, prior to initiation of the treatment plan, the patient presented to the emergency department with progressive shortness of breath, found to be due to the mass effect of the carcinosarcoma
  - New CTAP completed noted overall **significant progression of neoplastic process, with worsened dominant intraperitoneal mass measuring up to 23 cm, worsened left upper quadrant intraperitoneal mass measuring up to 13 cm**
  - Shortly thereafter that patient succumbed to her diagnosis.

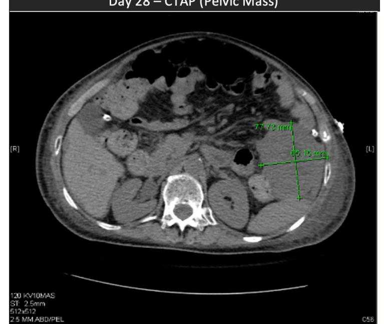
Pathologic Diagnosis:

A: LUQ abdominal mass biopsy:

- Biphasic malignant tumor, most consistent with carcinosarcoma (malignant mixed mesodermal tumor).



Day 28 – CTAP (Pelvic Mass)

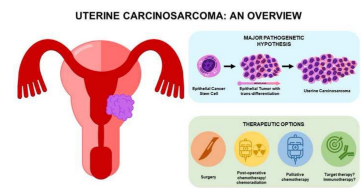


Day 28 – CTAP (Pelvic Mass)

Discussion: Carcinosarcoma

Introduction:
- Malignant mixed Mullerian tumor (MMMT) of the ovary is a rare, aggressive malignancy that has features of both carcinoma and sarcoma
  - **Carcinoma:** cancer of epithelial tissue, which is skin and tissue that lines or covers the internal organs
  - **Sarcoma**: cancer of connective tissue, such as bone, cartilage, and fat
- More than half of women with this cancer are **discovered at an advanced stage because they have no symptoms initially**
- Symptoms include abdominal or pelvic discomfort, vaginal bleeding, bloating or swelling of the abdomen, feeling full immediately after eating, and other digestive issues when present
- The cause of ovarian carcinosarcoma is not yet understood
- Treatment usually consists of surgery to remove the tumor and chemotherapy
- The chance of recovery and long-term survival (prognosis) is poor, with a **reported 5-year survival rate of about 28%**

Epidemiology and Risk Factors:
- **Uterine carcinosarcomas are rare tumors that account for less than 5 percent of all uterine** malignancies
- As an example, in the United States, the incidence of carcinosarcoma is approximately **1 to 4 per 100,000 women**
- Carcinosarcoma occurs in older women; the median age at diagnosis ranges from **62 to 67 years**
- African American women have twofold higher incidence of uterine carcinosarcoma compared with non-Hispanic or Caucasia women
- Uterine carcinosarcomas share similar risk factors with endometrial carcinomas
  - Obesity
  - Nulliparity
  - Use of exogenous estrogen
  - Use of Tamoxifen
  - History of pelvic irradiation
- Progestin-containing contraceptives are protective against both types of neoplasms



Presentation:
- Women with uterine carcinosarcomas may present with a classical clinical triad of pain, bleeding, and a rapidly enlarging uterus
- Of these, vaginal bleeding is the most common presenting sign for women with carcinosarcoma.
- In the largest report involving 300 patients, presenting signs included postmenopausal bleeding (82 percent), pelvic pain (13 percent), and vaginal discharge (10 percent)
- Over 10 percent of patients with carcinosarcoma will present with metastatic disease, and 60 percent will have extrauterine disease on staging scans
- On exam, a pelvic mass may be palpated or seen protruding through the cervical os
- Up to 15 percent of patients have involvement of the cervix identified through cervical biopsy, endocervical curettage, or both

Diagnosis:
- Imaging for diagnosis can include:
  - US
  - CT
  - MRI
  - PET
- Ultimately, tissues diagnosis via biopsy is needed for diagnosis

Staging:

Corpus uteri: Carcinoma and carcinosarcoma TNM staging AJCC UICC 8th edition

The definitions of the T categories correspond to the stages accepted by the Fédération Internationale de Gynécologie et d'Obstétrique (FIGO). Both systems are included for comparison.

Primary tumor (T)		
T category	FIGO stage	T criteria
TX		Primary tumor cannot be assessed
T0		No evidence of primary tumor
T1	I	Tumor confined to the corpus uteri, including endocervical glandular involvement
T1a	IA	Tumor limited to the endometrium or invading less than half the myometrium
T1b	IB	Tumor invading one half or more of the myometrium
T2	II	Tumor invading the stromal connective tissue of the cervix but not extending beyond the uterus. Does NOT include endocervical glandular involvement.
T3	III	Tumor involving serosa, adnexa, vagina, or parametrium
T3a	IIIA	Tumor involving the serosa and/or adnexa (direct extension or metastasis)
T3b	IIIB	Vaginal involvement (direct extension or metastasis) or parametrial involvement
T4	IVA	Tumor invading the bladder mucosa and/or bowel mucosa (bullous edema is not sufficient to classify a tumor as T4)
T suffix (m) if synchronous primary tumors are found in a single organ.		
Regional lymph nodes (N)		
N category	FIGO stage	N criteria
NX		Regional lymph nodes cannot be assessed
N0		No regional lymph node metastasis
N0(i+)		Isolated tumor cells in regional lymph node(s) no greater than 0.2 mm
N1	IIIC1	Regional lymph node metastasis to pelvic lymph nodes
N1mi	IIIC1	Regional lymph node metastasis (greater than 0.2 mm but not greater than 2.0 mm in diameter) to pelvic lymph nodes
N1a	IIIC1	Regional lymph node metastasis (greater than 2.0 mm in diameter) to pelvic lymph nodes
N2	IIIC2	Regional lymph node metastasis to para-aortic lymph nodes, with or without positive pelvic lymph nodes
N2mi	IIIC2	Regional lymph node metastasis (greater than 0.2 mm but not greater than 2.0 mm in diameter) to para-aortic lymph nodes, with or without positive pelvic lymph nodes
N2a	IIIC2	Regional lymph node metastasis (greater than 2.0 mm in diameter) to para-aortic lymph nodes, with or without positive pelvic lymph nodes
Suffix (sn) is added to the N category when regional lymph node metastasis is identified by sentinel lymph node biopsy only.		
Suffix (f) is added to the N category when metastasis is identified by fine needle aspiration (FNA) or core needle biopsy only.		
Distant metastasis (M)		
M category	FIGO stage	M criteria
cM0		No distant metastasis
cM1	IVB	Distant metastasis (includes to inguinal lymph nodes, intraperitoneal disease, lung, liver, or bone). (It excludes metastasis to pelvic or para-aortic lymph nodes, vagina, uterine serosa, or adnexa.)
pM1	IVB	Distant metastasis (includes to inguinal lymph nodes, intraperitoneal disease, liver, or bone) microscopically confirmed. (It excludes metastasis to pelvic or para-aortic lymph nodes, vagina, uterine serosa, or adnexa.)

Treatment:
- There are no clear treatment guidelines for ovarian carcinosarcoma due to its rarity
- Treatment options are determined by the specific characteristics of each patient's illness
- The National Comprehensive Cancer Network (NCCN), a group of physicians and researchers who strive to improve cancer care, recommends that women with carcinosarcoma be treated similarly to women with ovarian carcinoma
- If the patient is stable, therapy for ovarian carcinosarcoma typically starts with surgery to remove as much of the tumor as feasible
- Chemotherapy may be used to remove any cancer cells that remain in the body following surgery
- The most successful chemotherapies for ovarian carcinosarcoma appear to be those that contain platinum, such as cisplatin or carboplatin
- Recent research shows that when used in conjunction with platinum-based treatments, another drug called ifosfamide may improve therapy success

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