

65 y.o. F with Ascites and Pelvic Mass

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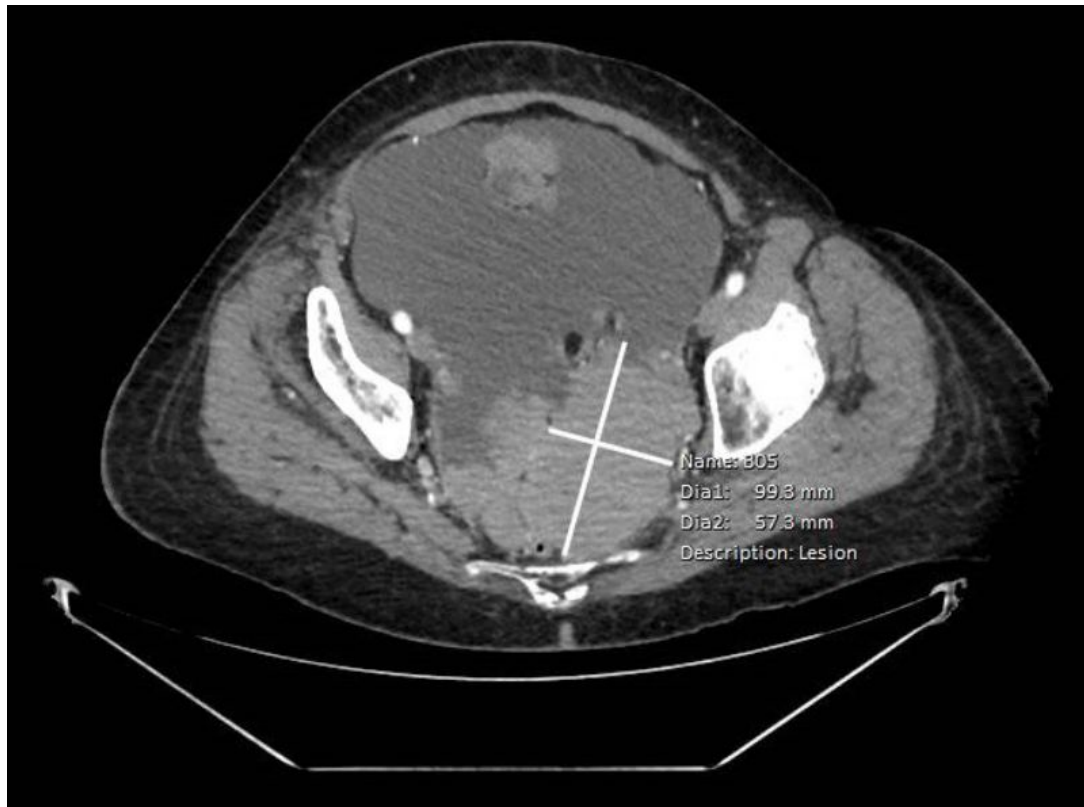
Presentation

- 65 y.o. Female admitted with ~3 months of hematochezia, diarrhea, and ascites.
 - Occasional blood in stool since 2016, thought to be hemorrhoids.
- Outside lab results w/ PCP in September 2019:
 - Hgb 11.9
 - Platelets 574 (H)
 - Albumin 3.3 (L)
 - Protein 5.7 (L)
 - LFTs all WNL
 - Creatinine 0.85 (WNL)
 - C-Reactive Protein- 32 (H)
 - Fecal calprotectin- 249 (H)
 - IgA- 218 (WNL)

Inpatient Workup

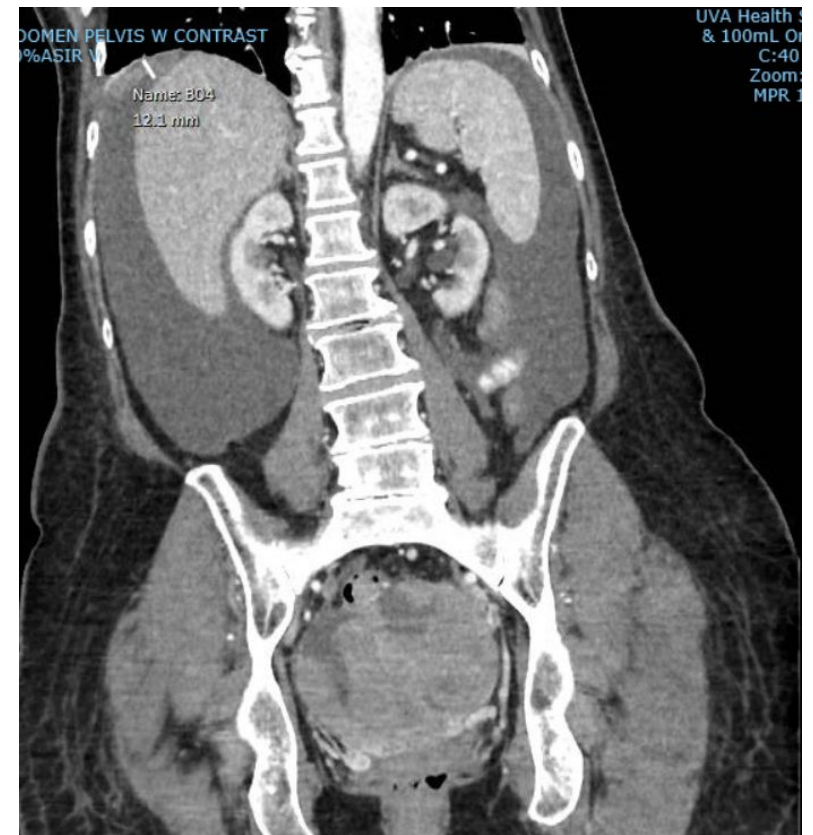
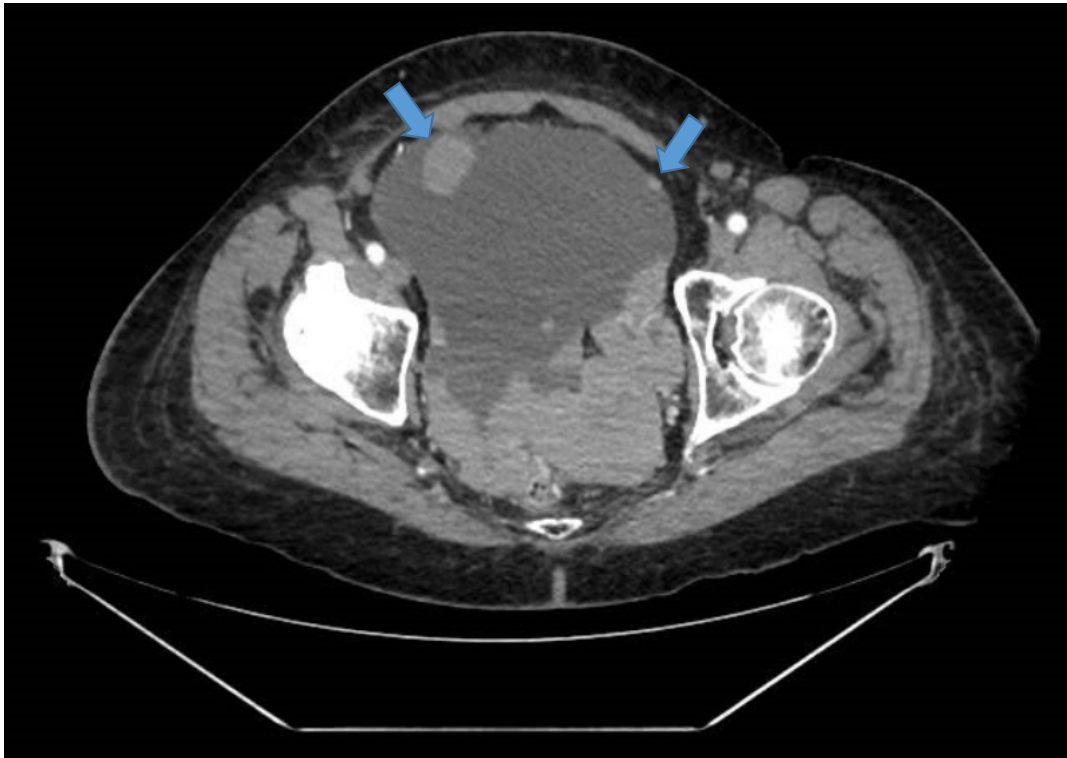
- RUQ Ultrasound:
 - Ascites
 - Small gallstones; no evidence of cholecystitis.
- CA-125: 8344 (very high)
- CEA: 2.4 (WNL)
- CT Abdomen w/ PO + IV Contrast

CT Abdomen: Pelvic Mass



Left hemipelvic mass measuring 9.9 x 5.7 x 8.3 cm which demonstrates invasion and encasement of the sigmoid colon.

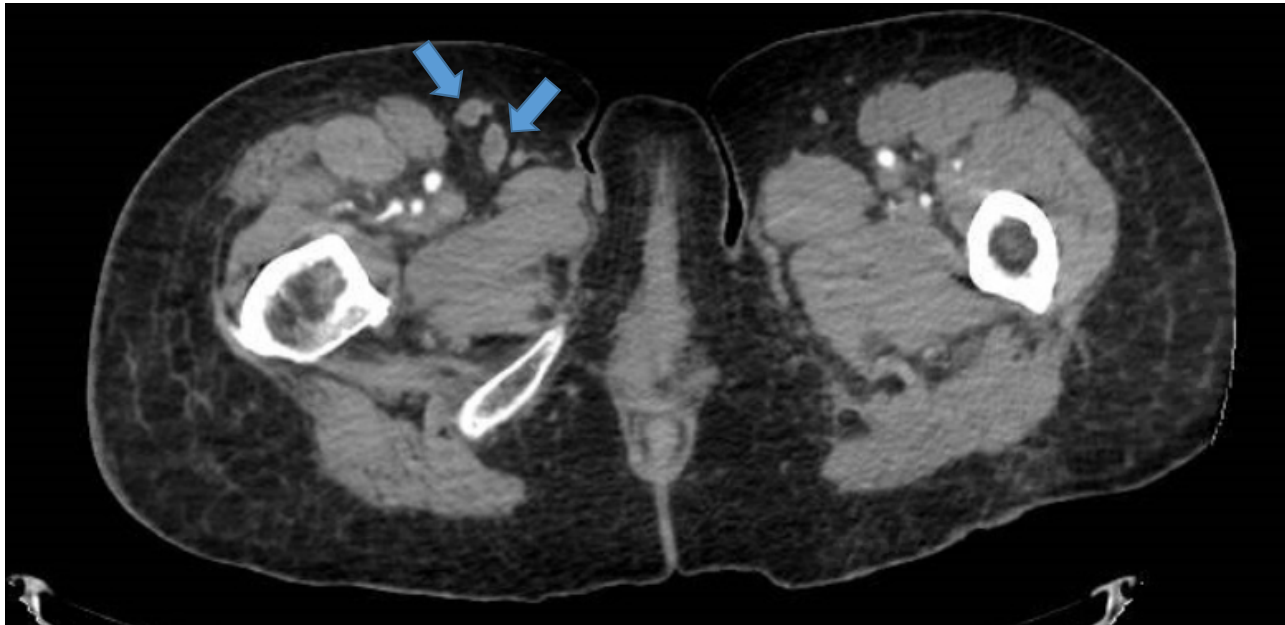
CT Abdomen: Peritoneal Deposits



CT Abdomen: Omental Caking



CT Abdomen: Right Inguinal Lymphadenopathy



Ultrasound-Guided Paracentesis + Biopsy

Sedation:

- Midazolam 2 mg
- Fentanyl 100 mcg

US vs. CT

- Large, easily accessible mass

Procedures Performed

- Paracentesis: 6L removed
- FNA x 2
- Core biopsy x 11

Pathology pending... Ovarian cancer suspected



Pathology Results

- Ascites Cytology:
 - Adenocarcinoma
- L Abdominal Mass FNA + Core Biopsy
 - High-grade serous carcinoma

Understanding Ovarian Cancer

- Types of Malignant Ovarian Neoplasms
 - Epithelial (85-90% of all malignant ovarian tumors)
 - Serous carcinomas (52%)
 - Clear cell carcinoma (6%)
 - Mucinous carcinoma (6%)
 - Endometrioid carcinoma (10%)
 - Germ Cell (<2%)
 - Stromal Cell (1%)
 - Fallopian Tube Carcinoma
- Prognosis dependent on Grade and Stage.

Staging Ovarian Cancer (AJCC/FIGO)

STAGE I: Tumor confined to ovaries			
OLD		NEW	
IA	Tumor limited to 1 ovary, capsule intact, no tumor on surface, negative washings/ascites.	IA	Tumor limited to 1 ovary, capsule intact, no tumor on surface, negative washings.
IB	Tumor involves both ovaries otherwise like IA.	IB	Tumor involves both ovaries otherwise like IA.
IC	Tumor involves 1 or both ovaries with any of the following: capsule rupture, tumor on surface, positive washings/ascites.	IC	<i>Tumor limited to 1 or both ovaries</i>
		IC1	<i>Surgical spill</i>
		IC2	<i>Capsule rupture before surgery or tumor on ovarian surface.</i>
		IC3	<i>Malignant cells in the ascites or peritoneal washings.</i>

STAGE II: Tumor involves 1 or both ovaries with pelvic extension (below the pelvic brim) or primary peritoneal cancer

OLD		NEW	
IIA	Extension and/or implant on uterus and/or Fallopian tubes	IIA	Extension and/or implant on uterus and/or Fallopian tubes
IIB	Extension to other pelvic intraperitoneal tissues	IIB	Extension to other pelvic intraperitoneal tissues
IIC	IIA or IIB with positive washings/ascites.		

Old stage IIC has been eliminated

STAGE III: Tumor involves 1 or both ovaries with cytologically or histologically confirmed spread to the peritoneum outside the pelvis and/or metastasis to the retroperitoneal lymph nodes			
OLD		NEW	
IIIA	Microscopic metastasis beyond the pelvis.	IIIA	<i>Positive retroperitoneal lymph nodes and/or microscopic metastasis beyond the pelvis</i>
		IIIA1	<i>Positive retroperitoneal lymph nodes only</i>
		IIIA1(i)	<i>Metastasis ≤ 10 mm</i>
		IIIA1(ii)	<i>Metastasis > 10 mm</i>
		IIIA2	<i>Microscopic, extrapelvic (above the brim) peritoneal involvement ± positive retroperitoneal lymph nodes</i>
IIIB	Macroscopic, extrapelvic, peritoneal metastasis ≤ 2 cm in greatest dimension.	IIIB	<i>Macroscopic, extrapelvic, peritoneal metastasis ≤ 2 cm ± positive retroperitoneal lymph nodes. Includes extension to capsule of liver/spleen.</i>
IIIC	Macroscopic, extrapelvic, peritoneal metastasis > 2 cm in greatest dimension and/or regional lymph node metastasis.	IIIC	<i>Macroscopic, extrapelvic, peritoneal metastasis > 2 cm ± positive retroperitoneal lymph nodes. Includes extension to capsule of liver/spleen.</i>

STAGE IV: Distant metastasis excluding peritoneal metastasis			
OLD		NEW	
IV	Distant metastasis excluding peritoneal metastasis. Includes hepatic parenchymal metastasis.	IVA	<i>Pleural effusion with positive cytology</i>
		IVB	<i>Hepatic and/or splenic parenchymal metastasis, metastasis to extra-abdominal organs (including inguinal lymph nodes and lymph nodes outside of the abdominal cavity)</i>

Prognosis

Table S3. Five-year Cause-specific Survival Rates* (%) for Ovarian Cancer by Stage at Diagnosis and Race/Ethnicity, US, 2007-2013

	All races	Non-Hispanic white	Non-Hispanic black	American Indian/ Alaska Native	Asian/Pacific Islander	Hispanic
All stages	47	46	39	41	57	54
Localized	92	92	88	^	92	95
Regional	73	73	62	57	79	74
Distant	29	29	22	29	35	35

*See Sources of Statistics, page 68, for more information on the calculation of cause-specific survival. ^Statistic not shown due to fewer than 25 cases.

Source: SEER 18 Registries, National Cancer Institute, 2017.

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Table S4. Five-year Relative Survival Rates* (%) for Ovarian Cancer by Stage at Diagnosis and Histology, US, 2007-2013

	Epithelial					Non-epithelial	
	All subtypes	Serous	Endometrioid	Mucinous	Clear cell	Sex cord- stromal	Germ cell
All stages	47	44	82	69	67	88	93
Localized	93	90	98	93	90	>99	98
Regional	74	75	87	81	74	89	93
Distant	30	35	48	18	26	53	77

*See Sources of Statistics, page 68, for more information on the calculation of relative survival.

Source: SEER 18 Registries, National Cancer Institute, 2017.

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Next Steps

- Staging:
 - CT Chest:
 - New small bilateral pleural effusions with associated dependent atelectasis.
 - A few scattered bilateral pulmonary micronodules up to 3 mm are seen. These are too small to otherwise characterize and are indeterminate in nature.
 - Thoracentesis w/ cytology of pleural effusions may assist accurate staging.
- Treatment:
 - Neoadjuvant chemotherapy, if indicated or clinical trial.
 - Debulking surgery
 - Chemotherapy (platinum/taxane-based)
 - Intraperitoneal for advanced disease.

Sources

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