

## Case Scenario 1

**1/2/13 History:** 64-year-old white female presented with right leg swelling and redness, abdominal pain.

**1/02/13 CT Abdomen/Pelvis:** Abnormal area of nodular mesenteric and left anterior peritoneal fat stranding, as well as small volume of ascites. Liver is normal in size and CT density, no masses seen. Scattered mesenteric lymph nodes are most notable within the right lower quadrant. There is a multiloculated right adnexal and/or uterine mass measuring approximately 5.9 x 6.1 cm as well as a complex left adnexal and/or uterine mass measuring approximately 6.4 x 6.6 cm weight eccentric solid components. A small amount of fluid within the endometrial cavity demonstrates abnormal thickening of the endometrial complex measuring at least 2.7 cm. No pelvic free fluid or distinct pelvic adenopathy. **Impression:** Abnormal complex bilateral adnexal and/or uterine mixed cystic/solid masses concerning for bilateral ovarian and/or uterine neoplasm. Abnormal thickening of the uterine endometrial complex with a small amount of fluid within the endometrial canal concerning for endometrial neoplasm. Area of abnormal nodular mesenteric and left anterior peritoneal fat stranding is concerning for mesenteric carcinomatosis.

**CA-125:** 215.1 elevated (range 0-45)

**1/14/13 Exploratory laparotomy, radical abdominal hysterectomy, bilateral salpingo-oophorectomy, partial omentectomy, suboptimal tumor debulking, cystoscopy**

### FINDINGS

Upon entering the abdominal cavity, there was approximately 2500 mL of straw-colored ascites. The omentum was entirely replaced with malignancy extending from the hepatic flexure to the spleen. The liver surface itself was for the most part free of disease; however, the gallbladder fossa contained disease. The diaphragm also had nodular metastatic disease. The peritoneal surfaces both in the upper abdomen and pelvis were significantly inflamed. In the pelvis, the anterior and posterior cul-de-sacs were obliterated secondary to tumor. The patient's right ovary was enlarged and contained a serous adenocarcinoma on frozen section. The patient's left ovary was felt to be part of the same mass. The uterus and cervix appeared grossly normal. There were multiple adhesions secondary to carcinomatosis along the mesentery of the small and large intestines as well as multiple nodules that were less than 1 cm. At the end of this procedure, it was felt that the patient was approximately 65% debulked with remaining disease along the gallbladder fossa, nodules along the mesentery of the small and large intestines and an approximately 4 cm plaque/nodule along the omentum adherent to the spleen as well as nodular disease along the diaphragm surface. The patient's pelvis was disease free.

### Pathology Final Diagnosis:

- A. PORTION OF OMENTUM, EXCISION: EXTENSIVE INVOLVEMENT BY METASTATIC PAPILLARY SEROUS ADENOCARCINOMA.
- B. PELVIC MASS, EXCISION: PAPILLARY SEROUS ADENOCARCINOMA.
- C. PORTION OF OMENTUM, EXCISION: EXTENSIVE INVOLVEMENT BY METASTATIC PAPILLARY SEROUS ADENOCARCINOMA.
- D. RIGHT FALLOPIAN TUBE, SALPINGECTOMY: FIBROVASCULAR ADHESIONS. NO TUMOR SEEN.
- E. LEFT SALPINGOOOPHORECTOMY:  
OVARY: INVOLVEMENT BY PAPILLARY SEROUS ADENOCARCINOMA.  
FALLOPIAN TUBE: NO TUMOR SEEN.
- F. OVARY, RIGHT, OOPHORECTOMY: PAPILLARY SEROUS ADENOCARCINOMA, GRADE 2/3.

- G. TOTAL ABDOMINAL HYSTERECTOMY:
  - UTERUS, SEROSA: METASTATIC PAPILLARY SEROUS ADENOCARCINOMA.
  - UTERUS, CERVIX: NO SIGNIFICANT HISTOLOGIC ABNORMALITIES.
  - UTERUS, ENDOMETRIUM: WEAKLY PROLIFERATIVE ENDOMETRIUM.
  - UTERUS, MYOMETRIUM: ADENOMYOSIS.
- H. RIGHT PERITONEAL NODULE, BIOPSY: METASTATIC PAPILLARY SEROUS ADENOCARCINOMA.
- I. PELVIC MASS #2, EXCISION: EXTENSIVE INVOLVEMENT BY METASTATIC PAPILLARY SEROUS ADENOCARCINOMA.

**Gyn Oncology Post Op**

**2/15/13** Patient was treated w/Carboplatin/Taxol starting today.

### Case Scenario Worksheet

<b>Primary Site C_____.</b>		<b>Morphology _____/_____</b>	
<b>Stage/ Prognostic Factors</b>			
CS Tumor Size		CS SSF 9	988
CS Extension		CS SSF 10	988
CS Tumor Size/Ext Eval		CS SSF 11	988
CS Lymph Nodes		CS SSF 12	988
CS Lymph Nodes Eval		CS SSF 13	988
Regional Nodes Positive		CS SSF 14	988
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CS Mets Eval		CS SSF 17	988
CS SSF 1		CS SSF 18	988
CS SSF 2		CS SSF 19	988
CS SSF 3		CS SSF 20	988
CS SSF 4	988	CS SSF 21	988
CS SSF 5	988	CS SSF 22	988
CS SSF 6	988	CS SSF 23	988
CS SSF 7	988	CS SSF 24	988
CS SSF 8	988	CS SSF 25	988
Summary Stage		Derived AJCC TNM Stage (indicate c or p in the space before the T, N, or M)	_T__N__M__ Stage__
Clinical AJCC TNM Stage	T__N__M__ Stage__	Pathologic AJCC TNM Stage	T__N__M__ Stage__
<b>Treatment</b>			
Diagnostic Staging Procedure			
<b>Surgery Codes</b>		<b>Radiation Codes</b>	
Surgical Procedure of Primary Site		Radiation Treatment Volume	
Scope of Regional Lymph Node Surgery		Regional Treatment Modality	
Surgical Procedure/ Other Site		Regional Dose	
<b>Systemic Therapy Codes</b>		<b>Boost Treatment Modality</b>	
Chemotherapy		Boost Dose	
Hormone Therapy		Number of Treatments to Volume	
Immunotherapy		Reason No Radiation	
Hematologic Transplant/Endocrine Procedure		Radiation/Surgery Sequence	
Systemic/Surgery Sequence			

## Case Scenario 2

**2/27/13 Pelvic US:** There is a large cystic structure of the pelvis. This measures 15.0 x 9.6 x 13.0 cm. This appears to have a mural based nodular component measuring upwards of approximately 5 cm in size. This appears to be associated with the right ovary which measures 2.2 x 1.7 x 2.0 cm. Findings are most consistent with large, mostly cystic ovarian neoplasm. Note this could be left ovarian in origin with mass effect upon the right ovary. A distinct left ovary is not identified. **Impression:** Large, mostly cystic pelvic mass identified measuring upwards of 15 cm in size. This appears to have a solid nodule mural component measuring approx. 5 cm. Findings are fairly suspicious for ovarian malignancy. I cannot tell if this is right or left adnexal in origin as the structure inhabits the majority of the pelvic space. Surgical consult is recommended.

**CA-125:** 13.65 within normal limits (Range 0-45)

### **3/07/13 CT Abdomen/Pelvis**

#### **FINDINGS**

Bases of lungs appear normal. Liver, spleen, pancreas, gallbladder, and adrenal glands are normal. Right hydronephrosis is present, likely secondary to extrinsic compression from pelvic mass. No persistent nephrogram. Bilateral extrarenal pelvis. Abdominal aorta contains atherosclerotic calcifications without aneurysm. Sub-centimeter retroperitoneal and mesenteric lymph nodes. Appendix is normal. No bowel obstruction. A large 12 x 14 cm predominately cystic pelvic mass is present with an eccentric solid enhancing component measuring approximately 6.8 x 3.4 cm. Unable to tell which structure it originated from. However it does appear to be separate from the uterus. No free pelvic fluid. No omental nodularity identified. No free pelvic fluid. Urinary bladder is non-distended. Bone windows show facet osteoarthropathy degenerative disc disease.

#### **IMPRESSION**

1. Large pelvic cystic mass with solid component. Worrisome for ovarian cystadenoma/cystadenocarcinoma. However, difficult to tell organ of origin.
2. Right hydronephrosis, likely secondary to extrinsic compression from pelvic mass.

### **3/27/13 Diagnostic laparoscopy, exploratory laparotomy, TAH/BSO**

On pelvic exam prior to beginning of the procedure, the mass noted to be mobile and located approximately 2 cm below the umbilicus. Upon entry with laparoscopy, the mass was loose appearing and was originating from the patient's left ovary. There were some adhesions of the mass to the sigmoid, which were dissected off. There was noted to be some bleeding from the left infundibulopelvic ligament with the dissection of the mass. The decision was made to proceed with an exploratory laparotomy. There was a mass which had ruptured and there was clear serous fluid, which came from the cyst. There was noted to be a 2 cm cyst on the right ovary. The uterus and tubes appeared normal. The omentum was examined and there was noted to be no nodularity.

#### **Pathology Final Diagnosis:**

- A. LEFT IP, BIOPSY: FIBROMEMBRANOUS AND NEUROVASCULAR TISSUE IS NEGATIVE FOR MALIGNANCY.
- B. OVARY AND TUBE, LEFT, SALPINGOOPHERECTOMY: HIGH-GRADE CLEAR CELL ADENOCARCINOMA ARISING IN AN OLD ENDOMETRIOTIC CYST. CYST MEASURES

APPROXIMATELY 11 CM WITH TWO NODULES ATTACHED TO THE WALL MEASURING 2.5 AND 4 CM IN GREATEST EXTENT WHICH COMPRISE THE MAJORITY OF THE TUMOR PRESENT. TUMOR IS CONFINED TO THE CYST MICROSCOPICALLY, SEE COMMENT. ATTACHED FALLOPIAN TUBE IS ALSO UNREMARKABLE.

- C. RIGHT OVARY AND TUBE, SALPINGOOOPHORECTOMY: UNREMARKABLE FALLOPIAN TUBE AND OVARY.
- D. UTERUS, HYSTERECTOMY: CERVICAL AND ENDOCERVICAL TISSUES ARE UNREMARKABLE. MYOMETRIUM DEMONSTRATES PROLIFERATIVE PHASE.

**Diagnostic Comments:** It is uncertain whether the cyst when received had been ruptured or not as it was somewhat decompressed. Correlation with surgical information is necessary to determine whether this occurred. No tumor is present on the outer surface of the ovarian cyst on the serosal biopsies taken of the uterus or the opposite ovary.

**Final Diagnosis:**

ABDOMINAL CAVITY WASHINGS, CYTOLOGIC EXAMINATION: POSITIVE FOR MALIGNANCY. FINDINGS ARE CONSISTENT WITH CLEAR CELL CARCINOMA.

**Gyn Oncology Post Op Visits**

**4/17/13** At least IC clear cell adenocarcinoma of the ovary. We discussed the two treatment options, namely, completion of staging vs. chemotherapy with interval "debulking". The patient desires to start chemotherapy. We discussed the indication for interval debulking as it relates to her situation. I would plan this surgery following 3 cycles of chemotherapy

**4/19/13** Carboplatin/Taxol started

**6/19/13 Exploratory laparotomy, infracolic omentectomy, extensis lysis of adhesions, right pelvic and right para-aortic lymph node dissection**

Upon entering the patient's abdomen, there were dense adhesions of the omentum to the right pelvic sidewall. There were also dense adhesions of the sigmoid colon to the left pelvic retroperitoneum with the sigmoid colon densely adhered to the left external iliac artery. In the pelvis, there were dense adhesions of the small intestine to the vaginal cuff and to both pelvic sidewalls. There were also multiple adhesions of small intestine and large intestine. The patient's appendix was also seen and was densely adhered to portions of the small bowel mesentery. Exploration of the patient's upper abdomen revealed smooth peritoneal surfaces. The liver appeared grossly normal as did the spleen. The patient's small and large intestine were examined closely as were the mesentery, no defects were noted. There were no metastatic deposits noted. There was no evidence of gross malignancy in the pelvis. Aside from the significant amount of adhesions, there were no other concerning findings. On the right side, there was no significant lymphadenopathy as on the left, although, it was difficult to appreciate given the amount of scarring. There was no right para-aortic lymphadenopathy or left para-aortic lymphadenopathy.

**Pathology Final Diagnosis:**

- A. OMENTUM, OMENTECTOMY: MATURE ADIPOSE TISSUE AND SKELETAL MUSCLE WITH FOCAL MULTINUCLEATED GIANT CELL REACTION. NO TUMOR IDENTIFIED.
- B. LYMPH NODES, RIGHT PELVIC, EXCISION: A SINGLE LYMPH NODE IS NEGATIVE FOR TUMOR.
- C. LYMPH NODES, RIGHT PARAORTIC, EXCISION: BENIGN FIBROADIPOSE TISSUE. NO LYMPH NODE TISSUE IDENTIFIED.

**7/12/13** Postop chemo resumed.

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Diagnostic Staging Procedure			
<b>Surgery Codes</b>		<b>Radiation Codes</b>	
Surgical Procedure of Primary Site		Radiation Treatment Volume	
Scope of Regional Lymph Node Surgery		Regional Treatment Modality	
Surgical Procedure/ Other Site		Regional Dose	
<b>Systemic Therapy Codes</b>		Boost Treatment Modality	
Chemotherapy		Boost Dose	
Hormone Therapy		Number of Treatments to Volume	
Immunotherapy		Reason No Radiation	
Hematologic Transplant/Endocrine Procedure		Radiation/Surgery Sequence	
Systemic/Surgery Sequence			

### Case Scenario 3

**8/15/13 Ultrasound Bladder:** The urinary bladder is not distended at the time of this study limiting its evaluation. No definite localized wall thickening in the urinary bladder. No definite bladder diverticula. The uterus is normal in size and appearance. No endometrial thickening within the uterus. There is a large sonolucent structure in the region of the left ovary measuring about 11 x 18 cm in size. The majority of the wall of this structure is smooth and thin, but there are a few areas of slight nodular thickening within the wall of this predominantly cystic mass. The possibility of cystadenoma or cystadenocarcinoma of the left ovary should be considerations. Tiny amount of free fluid in the cul de sac is present.

**Impression:** Large predominately cystic mass left ovary but with some areas of localized wall thickening within the predominantly cystic mass; cystadenoma or cystadenocarcinoma of the left ovary to be excluded.

**CA-125:** 728.6 elevated (Range 0-45)

#### **8/20/13 Ultrasound Pelvis Findings:**

**Trans-abdominal pelvic ultrasound:** Demonstrates the uterus to measure 8.4 x 3.3 x 4.7 cm. The right ovary is not visualized. Left ovary is abnormal. Bladder not distended sufficiently for detailed trans-abdominal visualization.

**Trans-vaginal pelvic ultrasound:** Images were obtained for more detailed evaluation of the left ovary. The right ovary is not visualized. Left ovary similar in appearance to that seen on the bladder ultrasound 5 days ago. The left ovary measures 12.4 x 5.3 x 8.4 cm. There is increased flow within the left ovary. The majority of the left ovary is a unilocular irregular cystic mass with internal echoes and multiple papillary fronds and lobulated soft tissue masses. Primary consideration is given to cystic adenocarcinoma. Less likely this could be a serous cystadenoma or due to the cog-wheel appearance of the soft tissue nodules lining the unilocular cyst could represent thickened folds of fallopian tube seen in chronic salpingitis/hydrosalpinx. There is a large amount of free fluid in the pelvis and cul-de-sac. There appears to be slight interval increase in amount of fluid since bladder ultrasound.

**IMPRESSION:** Large amount of ascites in the low pelvis and cul-de-sac slightly increased amount since 8/15 bladder ultrasound. Abnormal appearance of the left ovary with enlarged unilocular cystic mass demonstrating internal echoes, peripheral papilloma and fronds and lobulated soft tissue masses. Primary consideration is given to cystadenocarcinoma with secondary consideration given to chronic salpingitis/hydrosalpinx, possible rupture of the right fallopian tube or serous cystadenoma.

**8/21/13 CT Abdomen/Pelvis:** There is extensive mesenteric and retroperitoneal lymphadenopathy. There is a large amount of free pelvic fluid. There is 11.5 x 6.6 x 6.2 cm complex cystic left adnexal mass with internal septations and solid components which is concerning for cystadenocarcinoma. The right ovary is not clearly visualized.

**Impression:** Large complex cystic left adnexal mass concerning for cystadenocarcinoma. Ascites. esenteric and retroperitoneal adenopathy, which may be reactive but metastatic disease cannot be excluded. There is fatty infiltration of the ascending colon, likely a sequela of previous colitis.

**8/27/13 Exploratory laparotomy, TSH/BSO, Omentectomy, debulking, resection of ovarian malignancy**

Upon entering the patient's abdomen there was miliary disease coating the peritoneum in the upper abdomen along the diaphragmatic surfaces. There was a nodule along the right upper abdominal wall peritoneum measuring approximately 2 cm in diameter that on frozen section was positive for malignancy. The patient also had a 2 cm nodule along the sigmoid colon that was densely adhered to the patient's left ovary. This nodule was also resected and intra-operative pathology confirmed metastatic disease. A 1.5 cm small bowel mesenteric lymph node was also resected. There was no significant pelvic or para-aortic lymphadenopathy. The omentum did not appear to contain gross disease. The anterior broad ligament had miliary disease present. There were no gross lesions. The patient's left ovary was enlarged with cancer extruding through its surface and as stated above, densely adhered to the sigmoid colon. The patient's left ovary measured approximately 12 cm in greatest diameter. The patient's small and large intestine appeared otherwise grossly normal, again aside from the large lymph node present in the mesentery of the small intestine and the sigmoid nodule that was resected. The patient's right ovary and tube appeared grossly normal, as did the patient's uterus. There were no other pathologic findings noted. Again, the only residual disease was less than 5 mm, miliary, along the diaphragmatic surfaces, the upper abdominal peritoneal surfaces, and the anterior broad ligament. At the end of this procedure, the patient was deemed to be optimally debulked, with greater than 95% of her disease removed.

**Pathology: Final Diagnosis:**

- A. SIGMOID COLON NODULE, BIOPSY: METASTATIC SEROUS CARCINOMA.
- B. OMENTUM, OMENTECTOMY: INVOLVED BY MICROSCOPIC FOCI OF SEROUS CARCINOMA.
- C. PERITONEAL NODULE, BIOPSY: METASTATIC SEROUS CARCINOMA.
- D. LEFT SALPINGOOPHORECTOMY:
  - OVARY: HIGH-GRADE PAPILLARY SEROUS CARCINOMA (13 X 10 X 6 CM.).
  - FALLOPIAN TUBE: NO TUMOR SEEN.
- E. RIGHT PERITONEAL NODULE, BIOPSY: ENDOSALPINGIOSIS. NO TUMOR SEEN.
- F. RIGHT SALPINGOOPHORECTOMY:
  - OVARY: METASTATIC SEROUS CARCINOMA.
  - FALLOPIAN TUBE: NO TUMOR SEEN.
- G. TOTAL ABDOMINAL HYSTERECTOMY:
  - UTERUS, SEROSA: EXTENSIVE INVOLVEMENT BY HIGH-GRADE SEROUS CARCINOMA.
  - UTERUS, ENDOCERVIX: NO SIGNIFICANT HISTOLOGIC ABNORMALITIES.
  - UTERUS, ENDOMETRIUM: ATROPHIC ENDOMETRIUM.
  - UTERUS, MYOMETRIUM: NO SIGNIFICANT HISTOLOGIC ABNORMALITIES.
- H. LYMPH NODE, SMALL BOWEL MESENTERY, BIOPSY: GRADE I FOLLICULAR LYMPHOMA (SEE COMMENT).

**Diagnostic Comments:** The paraffin block from the small bowel mesenteric lymph node was submitted for t(14;18) analysis by FISH. The studies performed showed the presence of the t(14;18) IGH/BCL2 fusion supporting the diagnosis of follicular lymphoma.

**Gyn Oncology Post Op**

9/26/13 Carbo/taxol.

11/1/13 Patient started IP taxol cisplatin.



Case Scenario Worksheet  
(only abstract ovary primary)

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