

# Case Scenario #1

## Physical Exam:

46-year-old female presents with an ovarian mass. Presented to the ED on 12/8/23 with lower abdominal pain and hematuria. Abdominal US was normal. U/A was positive, placed on Levaquin x 7 days. Urine culture did not grow out any bacteria. CT on 12/14/23 showed no renal stones. Large soft tissue mass was an incidental finding. Ultrasound recommended. TVUS on 12/15/23 showed a large uterus measuring 10.4 x 4.8 x 7.1 cm with endometrial stripe of 23 mm. Right adnexal mass measures 9.4 x 8.6 x 9.3 cm with multiple cystic foci present. No significant medical history. family history includes Cancer in her paternal aunt and paternal uncle; Diabetes in her maternal grandfather; Hypertension in her father and mother; Parkinson's Disease in her father; Stroke in her father. She has a complex adnexal mass. Estimate risk of malignancy less than 10%. She is experiencing intermittent abdominal discomfort/cramping which is likely associated with this mass. No prior abdominal surgeries. Discussed decision to proceed to surgery based on risk of malignancy and abdominal pain. Reviewed plan for surgery to include removal of this mass and ovary with a frozen section at time of surgery. If a malignancy identified would proceed with TAH, BSO and staging. She desires to proceed with hysterectomy at the time of surgery regardless if malignant or not. Discussed risk of surgery. She will be posted for laparotomy, pelvic mass resection, TAH/BSO, and possible staging.

2/14/24 CA-125 34.1

3/9/24 CA-125 14.8

## Scans:

### EXAM: RENAL CT (with CONTRAST): SPLIT BOLUS 12/14/2023

HISTORY: Hematuria.

COMPARISON: none

#### RENAL CT FINDINGS:

Lower Chest: Normal

#### IMPRESSION:

1. No renal stone or hydronephrosis.
2. Large soft tissue mass in the right pelvis may be ovarian in nature. Malignancy cannot be excluded. Follow-up transvaginal pelvic ultrasound is recommended
3. Mild stranding of the inferior omentum. This is suspicious for omental metastasis.

## Pelvic U/S:

### EXAM:

TRANSABDOMINAL PELVIC US:

TRANSVAGINAL PELVIC US:

### US FINDINGS:

UTERUS: 10.4 x 4.8 x 7.1 cm. 184 mL. volume.

ENDOMETRIUM: [23 mm thickness.

### GENERAL DESCRIPTION:

The uterus and endometrium are normal by both transabdominal and transvaginal scanning.

**RIGHT OVARY:** Right ovary is not definitively identified. Complex soft tissue lesion in the right adnexa measuring 9.4 x 8.6 x 9.3 cm with multiple cystic foci present measuring up to 6.8 x 4.8 x 4.6 cm.

**LEFT OVARY:** Not visualized.

**PERITONEAL CAVITY:** No free fluid.

**KIDNEYS:** Grossly normal.

**BLADDER:** Normal.

### IMPRESSION:

1. Thickened endometrium may be due to endometrial hyperplasia or lucency.
2. Nonspecific suspicious right adnexal mass. Ovarian malignancy is suspected. Gynecologic consultation is recommended.

## Surgical Consult:

12/27/23 46-year-old female sent for due to an ovarian mass. Presented to the ED on 12/8/23 with lower abdominal pain and hematuria. Abdominal US was normal. U/A was positive, placed on Levaquin x 7 days. Urine culture did not grow out any bacteria. CT on 12/14/23 showed no renal stones. Large soft tissue mass was an incidental finding. Ultrasound recommended. TVUS on 12/15/23 showed a large uterus measuring 10.4 x 4.8 x 7.1 cm with endometrial stripe of 23 mm. Right adnexal mass measures 9.4 x 8.6 x 9.3 cm with multiple cystic foci present. No significant medical history. family history includes Cancer in her paternal aunt and paternal uncle; Diabetes in her maternal grandfather; Hypertension in her father and mother; Parkinson's Disease in her father; Stroke in her father. She has a complex adnexal mass. Estimate risk of malignancy less than 10%. She is experiencing intermittent abdominal discomfort/cramping which is likely associated with this mass. No prior abdominal surgeries. Discussed decision to proceed to surgery based on risk of malignancy and abdominal pain. Reviewed plan for surgery to include removal of

this mass and ovary with a frozen section at time of surgery. If a malignancy identified would proceed with TAH, BSO and staging. She desires to proceed with hysterectomy at the time of surgery regardless if malignant or not. Discussed risk of surgery. She will be posted for laparotomy, pelvic mass resection, TAH/BSO, and possible staging.

### Op Note:

**PROCEDURE:** Total abdominal hysterectomy, bilateral salpingo-oophorectomy, pelvic mass resection, bilateral pelvic lymph node dissection, infracolic omentectomy and resection of enlarged right external iliac node.

### FINDINGS:

1. Large solid right ovarian mass.
2. Pathologically enlarged right iliac node completely resected.
3. Frozen section of the ovary and uterus, both showing a carcinoma, most likely endometrioid type.
4. No other evidence of extrauterine or extraovarian disease.

## Pathology:

### FINAL CYTOLOGIC DIAGNOSIS:

ABDOMINAL WASHING, CYTOLOGY WITH CELL BLOCK: MALIGNANT CELLS PRESENT, SEE COMMENT

COMMENT: There are groups of glandular cells and psammoma bodies, suggestive of at least borderline serous tumor.

### FINAL PATHOLOGIC DIAGNOSIS:

- A. Right fallopian tube and ovary, salpingo-oophorectomy:
  - Ovary:
    - Endometrioid adenocarcinoma (14 cm in greatest dimension) (see synoptic report and comment).
    - Serosal involvement by low-grade serous carcinoma with associated psammomatous calcifications.
  - Fallopian tube:
    - Serosal involvement by low-grade serous carcinoma with associated psammomatous calcifications.
    - No morphologic evidence of primary fallopian tube malignancy (fallopian tube entirely submitted for histologic examination).
- B. Left fallopian tube and ovary, salpingo-oophorectomy:
  - Ovary:
    - Focal involvement by endometrioid adenocarcinoma (see synoptic report and comment).
    - Focal atrophic endometriosis.
    - Serosal involvement by low-grade serous carcinoma with associated psammomatous calcifications.
  - Fallopian tube:
    - Serosal involvement by low-grade serous carcinoma with associated psammomatous calcifications.
    - No morphologic evidence of primary fallopian tube malignancy (fallopian tube entirely submitted for histologic examination).
- C. Uterus, supracervical hysterectomy:
  - Well differentiated endometrioid adenocarcinoma with less than 50% myometrial invasion (see synoptic report and comment).
  - Tumor involves lower uterine segment.
  - Adenomyosis is present and involved by tumor.
  - Parametrial margins negative for tumor.
  - Serosal involvement by low-grade serous carcinoma with associated psammomatous calcifications
- D. Cervix, resection:
  - Focal involvement of cervical stroma by endometrioid carcinoma.
  - Negative for HPV cytopathic change, dysplasia, and primary cervical malignancy.

- E. Left pelvic lymph nodes, lymphadenectomy:
- Metastatic endometrioid carcinoma involving one out of two lymph nodes (1/2).
  - No extranodal extension identified.
- F. Right pelvic lymph nodes, lymphadenectomy:
- Benign fibroadipose tissue.
  - No lymph nodes identified.
  - Negative for metastatic tumor.
- G. Right external iliac node, excisional biopsy:
- Metastatic endometrioid carcinoma involving one lymph node (1/1).
  - No definitive extranodal extension identified.
- H. Omentum, omentectomy:
- Extensive involvement by low-grade serous carcinoma with associated psammomatous calcifications (microscopic involvement).
  - Negative for metastatic endometrioid carcinoma.

## Synoptic report: (Ovary)

- Procedure: Total hysterectomy and bilateral salpingo-oophorectomy, omentectomy, peritoneal washing.
- Specimen integrity:
  - Right ovary integrity: Capsule intact (see comment).
  - Left ovary integrity: Capsule intact.
  - Right fallopian tube integrity: Serosa intact.
  - Left fallopian tube integrity: Serosa intact.
  - Tumor site: Bilateral ovaries.
  - Tumor size: 14 cm in greatest dimension.
  - Histologic type: Endometrioid carcinoma.
  - Histologic grade: Grade 2 (moderately differentiated).
  - Ovarian surface involvement: Not identified (evaluation limited by partial capsular disruption).
  - Fallopian tube surface involvement: Not identified.
  - Implants: Not applicable.
  - Other tissue/organ involvement: Not identified (see comment).
  - Largest extrapelvic peritoneal focus: Not applicable.
  - Peritoneal/ascitic fluid involvement: Not identified (see X24-93).
  - Chemotherapy response score: Not applicable.
  - Regional lymph node status: Regional lymph nodes present; tumor present in regional lymph nodes.
  - Number of nodes with metastasis greater than 10 mm: 1.
  - Number of nodes with metastasis 10 mm or less: 1.
  - Number of nodes with isolated tumor cells: 0.
  - Nodal sites with tumor: Left pelvic, right pelvic (external iliac).
  - Size of largest nodal metastatic deposit: Greater than 10 mm.
  - Location of largest nodal metastatic deposit: Right external iliac.
  - Number of lymph nodes examined: 3.
  - Nodal sites examined: Left pelvic, right pelvic (external iliac).
  - Distant sites involved: Not applicable.
  - Pathologic stage classification (pTNM, AJCC eighth edition): At least pT1bN1b (see comment).
  - pM category: Not applicable - pM cannot be determined from the submitted specimens.
  - FIGO stage (2018 FIGO cancer report): At least IB.
  - Additional findings: Focal atrophic endometriosis (left ovary).

## Synoptic report: (Primary peritoneum)

- Specimen integrity:
  - Right ovary integrity: Capsule intact (see comment).
  - Left ovary integrity: Capsule intact.
  - Right fallopian tube integrity: Serosa intact.

- Left fallopian tube integrity: Serosa intact.
- Tumor site: Primary peritoneum.
- Tumor size: Cannot be determined (not grossly identified).
- Histologic type: Low grade serous carcinoma.
- Histologic grade: Low grade.
- Ovarian surface involvement: Present, right and left (serosal involvement only).
- Fallopian tube surface involvement: Present, right and left (serosal involvement only).
- Implants: Not applicable.
- Other tissue/organ involvement:
  - Right ovary (serosa), left ovary (serosa)
  - Right fallopian tube (serosa)
  - Left fallopian tube (serosa)
  - Uterine corpus (serosa)
  - Omentum.
- Largest extrapelvic peritoneal focus: Microscopic.
- Peritoneal/ascitic fluid involvement: Present (see X24-93).
- Chemotherapy response score: Not applicable.
- Regional lymph node status: Regional lymph nodes present; all regional lymph nodes negative for tumor cells.
- Number of lymph nodes examined: 3.
- Distant sites involved: Not applicable.
- Pathologic stage classification (pTNM, AJCC eighth edition): pT3aN0. pM category: Not applicable.
- FIGO stage (2018 FIGO cancer report): IIIA2.

### Synoptic report: (Endometrium)

- Procedure: Total hysterectomy and bilateral salpingo-oophorectomy, omentectomy, peritoneal washing.
- Hysterectomy type: Abdominal.
- Specimen integrity: Intact.
- Tumor site: Endometrium, lower uterine segment.
- Tumor size: 6.5 cm in greatest dimension.
- Histologic type: Endometrioid carcinoma, NOS.
- Histologic grade: FIGO grade 1.
- Myometrial invasion: Present.
- Depth of myometrial invasion: 5 mm.
- Myometrial thickness: 24 mm.
- Percentage of myometrial invasion: 21%.
- Adenomyosis: Present, involved by carcinoma.
- Uterine serosa involvement: Not identified.
- Lower uterine segment involvement: Present.
- Cervical stroma involvement: Present.

- Other tissue/organ involvement: Not identified (see comment).
- Peritoneal/ascitic fluid involvement: Not identified (see X24-93).
- Lymphovascular invasion: Not identified.
- Margin status: All margins negative for invasive carcinoma.
- Regional lymph node status: Regional lymph nodes present; all regional lymph nodes negative for tumor cells (see comment).
- Lymph nodes examined:
- Total number of pelvic nodes examined: 3.
- Number of pelvic sentinel nodes examined: Not applicable.
- Total number of para-aortic nodes examined: 0.
- Number of para-aortic sentinel nodes examined: Not applicable.
- Distant sites involved: Not applicable.
- Pathologic stage classification (pTNM, AJCC eighth edition): pT2N0. pM category: Not applicable - pM cannot be determined from the submitted specimens.
- FIGO stage (2018 FIGO cancer report): II.

### Med Onc Consult:

Pathology was sent out for pathology review. Pathology showed she has 3 synchronous cancers, ovary, peritoneal and endometrial. Discussed the details of each cancer, however either way she will require systemic chemotherapy, Taxol 175 mg/m<sup>2</sup> and Carboplatin AUC 6 Q 21 days.

When she completes chemotherapy will discuss estrogen blockers, Femara, for the low-grade serous carcinoma of the peritoneum. Side effects of chemotherapy include fatigue, alopecia, neutropenia, nausea, and neuropathy. All questions have been answered and she agrees with the plan. Chemotherapy consent signed today. Chemotherapy teaching and labs completed today. If labs adequate will proceed with cycle 1 on 2/17/24. Return in 3 weeks for a chemo check with labs.

### 3/1/24 Rad Onc Consult:

CHIEF COMPLAINT: evaluation for treatment of endometrial cancer

#### DIAGNOSIS:

1. Stage IIIA endometrioid adenocarcinoma of the ovary
2. Stage II, grade 1 endometrial cancer (cervical stromal invasion) MMI 5mm out of 24mm
3. Stage IIIA2 low grade serous carcinoma of the peritoneum.

**HISTORY OF PRESENT ILLNESS:** 46 y.o. female who presented with abnormal bleeding and cramping in Fall 2023. She was offered hysterectomy.



Pathology from TAH/BSO was sent out for second opinion, confirming diagnosis of 3 synchronous primary pelvic malignancies.

### Follow-up 3/14/24

She completed cycle 6 of taxol/carbo chemotherapy on 3/2/2024. She tolerated chemo well. She developed diarrhea and fatigue. She denies pain, vaginal bleeding, vaginal discharge, cough, SOB, headaches. IMRT and daily IGRT recommended to spare bowel, bladder, bone marrow. IMRT reduces acute and chronic GI toxicity (per RTOG 1203/TIME-C) including bowel obstruction (per Shih et al Gynecol Oncol 2016), while decreasing neutropenia (per Brixey et al IJROBP 2002).

# Case Scenario 1

Primary Site		MP Rule		Clinical Grade	
Laterality				Path Grade	
Histology		H Rule			
Behavior					
<b>Stage Data items</b>					
Tumor Size Summary					
<b>AJCC Stage</b>					
Clinical T		Pathological T			
cT Suffix		pT Suffix			
Clinical N		Pathological N			
cN Suffix		pN Suffix			
Clinical M		Pathological M			
Clinical Stage		Pathological Stage			
<b>EOD &amp; SSDI's</b>			<b>Diagnostic and Treatment</b>		
Summary Stage 2018			Diagnostic Staging Procedure		
EOD Primary Tumor					
EOD Lymph Regional Nodes			Surgical Procedure of Primary Site		
EOD Mets			Scope of Regional Lymph Node Surgery		
Regional Nodes Positive			Surgical Procedure/ Other Site		
Regional Nodes Examined					
Lymphovascular Invasion			Chemotherapy		
FIGO Stage			Hormone Therapy		
CA-125 PreTx Lab value			Immunotherapy		
Residual Tumor Volume Post Cytoreduction			Hematologic Transplant/Endocrine Procedure		
			Systemic/Surgery Sequence		

## Case Scenario #2

### Physical Exam:

82-year-old female presents as a self-referral for an ovarian mass. Presented to the Mederi Hospital in Colombia for increased weakness. Admitted from 01/06/24 to 01/23/24. While admitted received multiple MRI's and CT's of her head and body. MRI of the pelvis showed a normal uterus and endometrial stripe and a 9 x 6cm mass in the left adnexa; no free fluid noted. A CT of the A/P showed a 6.8 x 7.1 x 9.1cm complex cystic lesion in the left adnexa with concern for neoplastic involvement. Records from Colombia are limited as they are entirely in Spanish and need to be translated. CD of images has been interpreted. Family moved patient for further treatment options in the U.S. Personal medical history includes Neuropathy and ALS. Non smoker. No current ETOH. No family history of cancer.

01/07/24 CA 125 8.2

### Surgery Consult:

Her mass is mainly liquid filled and I believe that her risk of this being cancer is about 10%. I recommend that we complete removal of uterus, tubes, and ovaries at this time. A staging process with multiple biopsies will be completed to assess for spread of disease. While she is in the OR, I would send a frozen section of these tissue to a pathologist who would determine if it is benign or malignant. If benign, the surgery would be complete. If malignant, I would complete a staging process by removing necessary lymph nodes to determine any spread of disease.

She will be posted for a TAH, BSO with possible staging.

### Med Onc Consult:

Recommendation is Carboplatin and Taxol. Briefly discussed this regimen, but do have concern pt could not tolerate this due to other medical issues (ALS) and weakness at this time. A less intensive chemo option would be Carboplatin alone with the possibility of adding in another drug based off of her tolerance. This regimen is tolerated much better in patients with co morbidities that already cause neuropathy and weakness such as her ALS.

In the hospital the Neurology team was consulted in regards to her presumed ALS, dx in Columbia. They were unable to interpret the records and scans from Columbia so they are unsure of her ALS diagnosis at this time. They obtained a head MRI which showed concerns for osseous mets versus multiple myeloma. She is scheduled for a nerve conduction test on Friday this week. We will reach out to the neurology team to see if she can be seen in office to rule out if she has another form of cancer or if she really has ALS.

Family feels that if patient has a second cancer, that would change her treatment decision.

04/14/24 Patient on hospice care. No chemo given.

## Scans:

Unknown if Pelvic U/S was performed in Columbia

## CT of abdomen & Pelvis w/contrast:

Findings:

- The study showed a complex left adnexal cystic lesion with approx 68.6 x 70.35 x 90.6mm (L by AP by T), with solid component of approx. 68.6mm of major dimensions, finding to be characterized through complementary methods due to the possibility of primary neoplastic compromise.
- “Se le un modo” The liver shows normal size, shape and sides. No focal or diffuse alterations in its parenchyma were identified.
- There is no evidence of bile duct or extrahepatic dilation. Gallbladder distended with thin walls.
- The spleen, pancreas, and suprarenal glands are of normal tomographic appearance.
- The kidneys have normal placement, size, shape, and sides. Contrast medium is satisfactorily concentrated. Collecting system, renal pelvis and ureters are normal in their extension.
- Distended bladder with thin walls and without masses or extrinsic compressions
- Uterus in normal placement with thick calcifications with suggestive fibroid within interior. Retroperitoneal vascular structures show normal caliber and course in all extensions with calcified atheromatous plaque located in abdominal aorta and primitive iliac arteries.
- No adenomegalias or retroperitoneal ganglion conglomerations were identified.
- Distended stomach with thin walls without masses.
- Thick and thin intestinal loops are normal according to tomography.
- There is no free fluid in the abdominal cavity
- Lumbar Osteochondrosis changes.

### **Conclusion**

- Complex left adnexal cystic lesion to be characterized by complementary methods
- Atheromatosis of the aorta and iliac arteries Lumbar osteochondrosis.

## CT of Thorax with contrast:

Findings:

- Bilateral basal parenchymal bands. No other pulmonary or pleural parenchyma alterations are demonstrated, specifically, there is no interstitial opaqueness or alveolar occupation.
- The trachea, primary and segmental bronchi show normal caliber and course in all extensions without endoluminal lesions or extrinsic compressions.
- Within the obtained images that evaluate mediastinal structures, vessels of normal caliber and course are observed in all extensions with extensive calcified atheromatous plaque located in the walls of the aortic arch and in the descending aorta itself. No adenomegaly or mediastinal ganglion conglomerations were identified.
- Cardiac chambers of normal configuration and dimensions.

- Generalized reduction of bone density due to osteopenia. Thoracic spondylosis changes shown through formation of marginal osteophytes.

### **Conclusion:**

- Aortic atheromatosis
- Bilateral basal parenchymal bands
- Thoracic spondylosis of the spine.

## Op Note:

Procedure: total hysterectomy with bilateral salpingo-oophorectomy omentectomy, peritoneal biopsy and pelvic washing with lymph node dissection.

## FINDINGS:

1. large left ovarian neoplasm with no rupture of the capsule surgically.
2. questionable cul-de-sac implants.
3. No disease in her upper abdomen, but staging was done.
4. At the end of the case, there was no residual disease left in her abdomen.

## Pathology:

### FINAL CYTOLOGIC DIAGNOSIS:

Pelvic Washing Cytology: Rare Atypical cells present.

### FINAL PATHOLOGIC DIAGNOSIS:

- A. LEFT FALLOPIAN TUBE AND OVARY:
  - HIGH-GRADE SEROUS CARCINOMA INVOLVING PARTIALLY CYSTIC OVARY (10 CM IN SIZE).
  - BENIGN FALLOPIAN TUBE.
- B. PERITONEAL BIOPSY:
  - HIGH-GRADE SEROUS CARCINOMA.
- C. UTERUS, CERVIX RIGHT FALLOPIAN TUBE AND OVARY
  - BENIGN UTERINE CERVIX.
  - INACTIVE PATTERN ENDOMETRIUM.
  - MYOMETRIUM WITH CALCIFIED LEIOMYOMA AND ADENOMYOSIS.
  - SEROSAL IMPLANT OF HIGH-GRADE SEROUS CARCINOMA.
  - SEROUS CYSTADENOMA OF RIGHT OVARY.
  - BENIGN FALLOPIAN TUBE.
- D. LEFT PELVIC LYMPH NODES:
  - 2 LYMPH NODES, NEGATIVE FOR METASTATIC CARCINOMA.
- E. GREATER OMENTUM:
  - NEGATIVE FOR MALIGNANCY.

SYNOPTIC REPORT, OVARY: SPECIMEN: TOTAL HYSTERECTOMY WITH BILATERAL SALPINGO-OOPHORECTOMY OMENTECTOMY, PERITONEAL BIOPSY AND PELVIC WASHING. SPECIMEN INTEGRITY: CAPSULE INTACT. TUMOR SITE: LEFT OVARY. TUMOR SIZE: 10 CM. HISTOLOGIC TYPE: HIGH-GRADE SEROUS CARCINOMA. HISTOLOGIC GRADE: HIGH-GRADE. OVARIAN SURFACE INVOLVEMENT: NOT IDENTIFIED. FALLOPIAN TUBE SURFACE INVOLVEMENT: NOT IDENTIFIED. IMPLANTS: PRESENT, PERITONEUM, AND UTERINE SEROSA. PERITONEAL FLUID (X 24-405): FEW ATYPICAL CELLS SEE SEPARATE REPORT. CHEMOTHERAPY RESPONSE SCORE: NO KNOWN PRESURGICAL THERAPY.

REGIONAL LYMPH NODES: REGIONAL LYMPH NODES PRESENT, ALL NEGATIVE FOR TUMOR CELLS. NUMBER OF LYMPH NODES EXAMINED: 2.

PATHOLOGIC STAGE: pT2b (FIGO IIB), pN0

## Case Scenario 2

Primary Site		MP Rule		Clinical Grade	
Laterality				Path Grade	
Histology		H Rule			
Behavior					
<b>Stage Data items</b>					
Tumor Size Summary					
<b>AJCC Stage</b>					
Clinical T		Pathological T			
cT Suffix		pT Suffix			
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<b>EOD &amp; SSDI's</b>			<b>Diagnostic and Treatment</b>		
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EOD Lymph Regional Nodes			Surgical Procedure of Primary Site		
EOD Mets			Scope of Regional Lymph Node Surgery		
Regional Nodes Positive			Surgical Procedure/ Other Site		
Regional Nodes Examined					
Lymphovascular Invasion			Chemotherapy		
FIGO Stage			Hormone Therapy		
CA-125 PreTx Lab value			Immunotherapy		
Residual Tumor Volume Post Cytoreduction			Hematologic Transplant/Endocrine Procedure		
			Systemic/Surgery Sequence		