**Case 1**

**History and Physical**

6-4-2018: 61 YO WF presents for evaluation of post-menopausal bleed. Patient reports has been present for 1 month. US revealed endometrial lining 4.2 mm and 14 cm mass behind uterus in pelvis with both cystic and solid components, filling entire pelvis, ovaries not palpable. Abdomen non-tender to palpation, no lymphadenopathy present. Will do CA 125 and CT scan of abd/pelvis and CXR and schedule TAH/BSO for next week.

**US Pelvis**

5-31-2018: Transvaginal US – Large mass seen within the midline pelvis posterior to the uterus. Difficult to identify the left ovary. It is a mixed solid and cystic mass with large solid component. Mass measures 14.4 cm in greatest dimension, solid component measures 8.7 x 7.4 x 10.4 cm. Right ovary is displaced due to extrinsic mass effect, but otherwise appears normal. Suggest gynecology consultation due to large size.

**CT Abdomen and pelvis**

6-6-2018: CT Abd – Gallbladder absent, stomach and other solid organs in upper abdomen appear unremarkable. No pathologically enlarged retroperitoneal or mesenteric lymph nodes. No evidence of urinary tract stone or obstruction. CT Pelvis – Large mass, approximately 14.0 x 14.0 x 11.0 cm in the midline pelvis. Mass displaces the bladder anteriorly and bowel loops to the side. No pathologically enlarged lymph nodes. Given location, exact organ of origination is difficult to ascertain, might arise from one of the ovaries, possibly the left. A uterine fibroid is a second consideration.

**Op Report**

6-12-2018: Laparoscopic assisted vaginal hysterectomy and BSO, LN dissection and partial omentectomy

**Path**

6-12-2018: Specimen submitted

1. Left fallopian tube, left ovary
2. Peritoneal washings
3. Uterus, cervix, right fallopian tube, right ovary
4. Omentum
5. Right external lymph node
6. Left external lymph node
7. Left common iliac lymph node
8. Left fallopian tube and ovary: high grade serous carcinoma involving ovary and fallopian tube
9. Peritoneum, washing: malignant cells observed
10. Uterus, cervix, right fallopian and ovary: high grade serous carcinoma involving ovary and fallopian tube, benign uterus with adenomyosis and leiomyomas
11. Omentum: negative for malignancy
12. Lymph nodes, right external iliac: adipose tissue only – no lymph nodes identified
13. Lymph nodes, left external iliac: 1 benign lymph node negative for metastatic carcinoma
14. Lymph nodes, left common iliac: adipose tissue only, no lymph nodes identified

**College of American Pathologists**

Surgical Pathology Cancer Case Summary (Checklist)

Procedure: Total hysterectomy and bilateral salpingo-oophorectomy, omentectomy, peritoneal washing

Specimen integrity of Right Ovary and Fallopian Tube: Capsule intact

Specimen Integrity of Left Ovary and Fallopian Tube: Fragmented

Tumor Site: Bilateral ovarian

Ovarian Surface Involvement:

Left: Not identified (negative per operative report)

Right: Not identified

Fallopian Tube Surface Involvement:

 Left: Not identified (negative per operative report)

 Right: Not Present

Tumor size:

Greatest dimension (centimeters): 14 cm left ovary (per operative report)

Histologic Type: Serous carcinoma

Two-tier grading system: High grade

Implants: Not identified

Other Tissue/ Organ Involvement: Bilateral ovaries and fallopian tubes

Peritoneal / Ascitic Fluid: Malignant (positive for malignancy)

Treatment effect: No known presurgical therapy

Regional Lymph Nodes:

 Lymph Node examination:

 Number of Nodes with metastasis greater than 10 mm: 0

 Number of Nodes with metastasis 10 mm or less (excludes ITCs): 0

 Total number of nodes examined: 1

**Follow-up**

7-16-2018: Here today for a one week follow up after initiating chemotherapy for ovarian cancer. Overall she is tolerating treatment will. Mild queasiness/nausea, no vomiting. Appetite has improved and no taste changes. She struggles with chronic constipation and has had no change in bowel habits.

**Oncology History**: Patient with a high grade serous carcinoma involving bilateral ovaries and fallopian tubes, peritoneal washing positive for malignant cells, omentum negative and 3 lymph nodes (1 examined) negative for disease. 5-31-18 US showed large mixed solid and cystic mass within the midline pelvis posterior to the uterus, 14.4 cm in greatest dimension, with solid component measuring 8.7 x 7.4 x 10.4 cm, may arise from left ovary. There is extrinsic mass effect on the uterus and right ovary which otherwise appears normal. No pelvic fluid. 6-4-18 had CA 125 as 60.4 (0-34 U/mL). New baseline after surgery 88 on 6-22-18. Chest x-ray on 6-6-18 negative. Surgery on 6-12-18 with chemo to follow.

**Summary of chemotherapy/treatment plan**: 21 day cycle for 6 cycles: Paclitaxel (Taxol) 175 mg/m2 IV on Day 1 every 21 days; Carboplatin (Paraplatin) AUC6 IV on Day 1 every 21 days; Neulasta 6 mg on PRO on Day 1

Impression and treatment plan: Pt with high grade serous carcinoma involving bilateral ovaries and fallopian tubes. Hysterectomy and BSO with partial omentectomy on 6-12-18. Although lymph nodes were not involved, peritoneal washings were positive for malignant cells. Adjuvant chemotherapy is indicated due to the aggressive nature of high grade serous carcinomas. Cycle #1 7-6-18, plan for cycle #2 7-27-18. Mild chemotherapy induced nausea, managing with Zofran and Compazine. She plans to return to work without restrictions - work release form completed. A referral for genetic counseling has been provided.

**Follow-up**

1-9-2019: 2 month Follow-up and labs. Patient here with husband. She is feeling well, her appetite is very good and she walks a few miles 5-6 times per week for exercises. She still has some neuropathy from chemo in her toes, left greater than right due to a herniated disc. Patient completed 6 cycles of Carboplatin/Taxol from 7-6-18 to 10-19-18. On 10-19-18 no evidence of disease. Continue to watch (surveillance). Labs – CA 125 on 11-9-2018 was 14 (0-34 U/mL). Follow up in 3 months.

|  |
| --- |
| Case Scenario 1 |
| Primary Site |  | MP Rule |  | Clinical Grade |  |
| Laterality |  |  |  | Pathological Grade |  |
| Histology |  | H Rule |  | Post Therapy Grade |  |
| Behavior |  |  |
| Stage Data items |
| Clinical Tumor Size |  | Pathological Tumor Size |  | Tumor Size Summary |  |
| AJCC Stage |
| Clinical T |  | Pathological T |  | Post-therapy T |  |
| cT Suffix |  | pT Suffix |  | pT Suffix |  |
| Clinical N |  | Pathological N |  | Post-therapy N |  |
| cN Suffix |  | pN Suffix |  | pN Suffix |  |
| Clinical M |  | Pathological M |  | Post-therapy M |  |
| Clinical Stage  |  | Pathological Stage |  | Post-therapy Stage |  |
| EOD & SSDI’s |  |  |  |  |
| Summary Stage 2018  |  | Diagnostic Staging Procedure |  |
| EOD Primary Tumor |  | **Surgery Codes** |
| 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 |  | **Systemic Therapy Codes** |
| 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 2**

**Physical Exam**

10-5-18: 61 WF presented to her personal physician with complaint of sudden onset of increased abdominal girth. She noted no masses prior to this but a mass could easily be palpated in the abdomen. Here for tumor reductive surgery. SHX: Prior smoker, quit 10 years ago. ETOH (-). FHX: FA w/ thyroid cancer. No gynecologic malignancy.

**X/Ray / Scan**

10-5-18: CT Abd/Pelvis: 17 cm solid/cystic mass likely adnexal in origin. Findings worrisome for carcinoma of ovary, possibly mucinous. Differential diagnosis includes primary carcinoma of the colon, pancreas, or lymphoma. Mets dx in RLL lung is not excluded. Mets seeding in peritoneal cavity possibility.

**Labs**

10-5-18 Elevated CA-125 @ 125 units/mL. ERA (+), PRA (-), HER-2/Neu (-)

**OP procedure**

10-14-18 Tumor reductive surgery with TAH/BSO, Omentectomy and Bilateral pelvic lymphadenectomy, Pelvic washing/bilateral paracolic gutter washing/diaphragm washing/ ascites fluid cytology.

**Path**

10-14-18 TAHBSO, Omentectomy, pelvic node dissection

Gross: Thirteen specimens received

1. Left tube/ovary – specimen consists of 1,374.6 gram, 17.0 x 14.5 x 9.0 cm multiloculated cystic mass with a smooth intact external surface. Mass 60% solid and 40% cystic. Attached to mass is a segment of fallopian tube
2. Right tube/ovary – specimen consists of 414.0 gram, 10.5 x 9.0 x 7.3 cm mass with smooth intact external surface. The mass is 80% solid and 20% cystic. Attached to mass is a segment of fallopian tube.
3. Uterus/cervix – specimen consists of a 57.7 gram, 8.5 x 2.8 x 3.3 cm uterus and cervix with smooth glistening serosal surface, ectocervix and myometrium is grossly unremarkable
4. Left pelvic sidewall
5. Right pelvic sidewall
6. Cul-de-sac
7. Omentum – specimen consists of a 42.0 x 13.0 x2.3 cm fragment of hemorrhagic omentum reveal multiple tan gray tumor nodules scattered throughout the omental fragment ranging from 0.8 to 3.2 cm
8. Left internal/external iliac lymph nodes – 4 possible nodes, ranging from 0.5 to 1.8 cm in greatest dimension
9. Right internal/external iliac lymph nodes – containing a single 0.7 cm lymph node
10. Left obturator – 3 possible nodes , ranging from 0.5 to 3.0 cm in greatest dimension
11. Left paracolic gutter
12. Right paracolic gutter
13. Bladder flap

Final diagnosis text:

1. Left tube and ovary: papillary serous carcinoma, low grade; Tumor size 17 cm in greatest dimension, surface involvement absent, capsule intact. Fallopian tube w/ invasive implants of papillary serous carcinoma
2. Right fallopian tube and ovary: papillary serous carcinoma, low grade, tumor size 10.5 cm in greatest dimension, surface involvement focally present, capsule intact. Fallopian tube with invasive implants of papillary serous carcinoma
3. Uterus w/ cervix: atrophic endometrium w/o evidence of atypia hyperplasia or malignancy; cervix and endocervical: without pathologic abnormality
4. Left pelvic sidewall bx: invasive papillary serous carcinoma
5. Right pelvic sidewall bx: invasive papillary serous carcinoma
6. Cul De Sac bx: invasive papillary serous carcinoma
7. Omentum – omentectomy: metastatic papillary serous carcinoma (3.2 cm in greatest dimension)
8. Left internal/external iliac LN’s: four benign lymph nodes (0/4), negative for mets
9. Right internal/external iliac LN: one lymph node (0/1), negative for mets
10. Left obturator LN: one lymph node (1/3) positive for metastatic serous carcinoma
11. Left paracolic gutter bx: fibroconnective tissue without evidence of tumor involvement
12. Right paracolic gutter bx: fibroconnective tissue without evidence of tumor involvement
13. Bladder flap bx: fibroconnective tissue with invasive papillary serous carcinoma

Residual tumor: Microscopic residual tumor

Lymphatic vessel invasion: cannot be assessed

Venous invasion: cannot be assessed

Additional notes: ER (+), PR (-), Her2 (-), p53 (+)

**Follow up**

10-18-2018 D/C Dx: Papillary serous carcinoma involving bilat ovaries. Successful dedulking surgery done with microscopic residual tumor left (R1). Follow with chemo. 11-5-2018 to 2-10-2019 6 cycles Taxol and Carboplatin. 3-31-2019 restaging CT abd/pelvis: marked improvement since 10-5-2018. No evidence of recurrence or mets dx. Good respond e to chemo tx.

|  |
| --- |
| Case Scenario 2 |
| Primary Site |  | MP Rule |  | Clinical Grade |  |
| Laterality |  |  |  | Pathological Grade |  |
| Histology |  | H Rule |  | Post Therapy Grade |  |
| Behavior |  |  |
| Stage Data items |
| Clinical Tumor Size |  | Pathological Tumor Size |  | Tumor Size Summary |  |
| AJCC Stage |
| Clinical T |  | Pathological T |  | Post-therapy T |  |
| cT Suffix |  | pT Suffix |  | pT Suffix |  |
| Clinical N |  | Pathological N |  | Post-therapy N |  |
| cN Suffix |  | pN Suffix |  | pN Suffix |  |
| Clinical M |  | Pathological M |  | Post-therapy M |  |
| Clinical Stage  |  | Pathological Stage |  | Post-therapy Stage |  |
| EOD & SSDI’s |  |  |  |  |
| Summary Stage 2018  |  | Diagnostic Staging Procedure |  |
| EOD Primary Tumor |  | **Surgery Codes** |
| 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 |  | **Systemic Therapy Codes** |
| 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 3**

**Progress Note 4-21-2018**

**Chief complaint**: discussing surgery, signing consents

**History of present Illness**: 57 YO WF, G3, who presents for surgery H&P. She presents to the hospital with the complaints of post-menopausal bleeding (PMB). The patient was evaluated in the office for 12 cm right ovarian solid mass and 4 cm left ovarian cyst. Not able to do an endometrial bx secondary to stenotic os. Patient in good health and active. Hx of Ileostomy due to ulcerative colitis.

**Physical Examination**: Patient’s appears well nourished, well developed, alert, in no acute distress. Review of systems: All normal.

**Labs**: CA 125 of 480

**Assessment**: Ovarian mass, right. Will do CA 125 and CBC and CMP and CT scan. Plan TAH/BSO and poss LND. Post-menopausal bleeding, left ovarian cyst

**Plan**:

* Medications: Lortab – 1 tablet by oral route every 4 hours as needed for pain for 10 days
* Instructions: Admit for surgery. I have discussed with the patient the indications for the procedure. Included in the discussion were the options of therapy, risks and complications as well as the benefits. Ample time was given to answer all questions. Procedure planned: TAH/BSO
* Disposition: 2 week post op check

**4-28-2018: CT Abdomen and Pelvis w/ Contrast**

History reported to technologist: post-menopausal bleeding x 4-6 weeks, Right ovarian mass 12 cm, 4 cm left ovarian cyst found on ultrasound. Comparison: comparison outside pelvic ultrasound 3-31-2018

Findings:

* Abdominal CT: Lung bases negative
* Liver, biliary tree, pancreas, spleen negative. Adrenals negative. There likely is some renal parenchymal scarring upper pole right kidney. No signs of hydronephrosis or urolithiasis.
* Scattered small retroperitoneal nodes, mesentery normal. Finding of prior colectomy with ileostomy right lower quadrant.
* Pelvic CT: Large right adnexal primarily soft tissue attenuation mass measuring approximate 11.6 x 5.6 x 7.5 cm. Small cystic component superiorly. This abuts the right lateral margin of uterus and displaces uterus to the left of midline. Normal right ovary non-visualized. Benign-appearing cystic lesion left ovary 4 cm. Endometrial lining appears somewhat heterogeneous enhancement pattern, felt to be abnormally thickened for age. This was measured at 6.6 mm on prior ultrasound which is above upper limits for postmenopausal patient.
* There is no free fluid in the pelvis. I do not appreciate any signs of peritoneal implants, omentum is normal.
* Impression:
1. Large solid appearing right adnexal mass contiguous with right lateral border of uterus displacing uterus. No normal-appearing ovary identified. I would favor this to be of ovarian origin, and given the solid nature of the lesion, this may represent a nonepithelial lesion such as stromal tumor. Exophytic uterine lesion is a possibility, but felt to be much less likely. This lesion should be considered malignant until proven otherwise. There is no however any signs of disease within the peritoneal cavity.
2. Benign-appearing cystic lesion in the left adnexa felt to be related to left ovary.
3. Somewhat heterogeneous appearing enhancement of the endometrium, which appears thickened, considered to be abnormal for age.

**OP Note**

5-3-2018: Total abdominal hysterectomy with bilateral salpingo-oophorectomy, partial omentectomy and scar revision and cell washings, extensive adhesiolysis.

Findings: Normal uterus, tubes and large right ovary and left ovary with small cyst. Right ovary appeared very vascular and appeared to be replaced by cancer. It was adhered to side wall and deep into cul de sac. Both ovaries found retroperitoneal.

**5-3-2018 Pathology**

Clinical history/diagnosis: Right ovarian mass, postmenopausal bleeding; left ovarian cyst

Specimen submitted:

1. Right ovary
2. Uterus with bilateral fallopian tubes and left ovary
3. Part of omentum
4. Pelvic wash

Diagnosis:

1. Ovary, right, oophorectomy: FIGO grade 2 endometrioid carcinoma, 12.5 mc in maximal dimension, limited to ovary
2. Uterus, hysterectomy: inactive endometrium with adenomyosis. No endometrial hyperplasia or atypia identified.

Ovary left, oophorectomy: Benign serous cyst

Fallopian tubes, bilateral salpingectomies: negative for malignancy

1. Portion of omentum, resection: negative for malignancy
2. Pelvic wash: negative for malignancy

College of American Pathologists (Checklist)

Specimen: Right and left ovary, Right and left fallopian tube, Uterus, Cervix, and Omentum

Procedure:

* Right salpingo-oophorectomy
* Left salpingo-oophorectomy
* Hysterectomy
* Lymph node sampling – not performed

Specimen Integrity:

* Right ovary: capsule partially ruptured
* Primary tumor site: Right ovary
* Ovarian surface involvement: Absent
* Tumor size:
	+ Right ovary greatest dimension: 12.5 cm; additional dimensions: 7.5 x 7.0 cm
	+ Left ovary greatest dimension: 3.9 cm; additional dimensions: 3.6 x 2 cm
	+ Right fallopian tube greatest dimension: 6.5 cm
	+ Left fallopian tube greatest dimension: 7.0 cm
* Histologic type: Endometrioid carcinoma
* Histologic grade: G2: Moderately differentiated (FIGO Grade 2)
* Extent of Involvement of other tissues/organs:
	+ Right ovary: involved
	+ Left ovary: not involved
	+ Right and left fallopian tube: not involved
	+ Omentum: not involved
	+ Uterus: not involved
	+ Peritoneal ascetic fluid: negative for malignancy
	+ Pleural fluid: not performed

Addendum: At the request of Dr. B, this case has been forwarded to Facility X. Their diagnosis is as follows:

* Ovary, right oophorectomy: endometrioid carcinoma, FIGO grade 2 (12.5 cm in greatest dimension). By report, the capsule was partially ruptured
* Uterus, left ovary, right and left fallopian tubes, total hysterectomy, oophorectomy and bilateral salpingectomy: all negative for cancer
* Omentum, omentectomy: negative for cancer
* Pelvic wash: negative for cancer

**Referral: Clinical Notes 7-18-2018**

Chief complaint/purpose of visit: This patient was not personally interviewed or examined. The history and examination findings are based on the clinical documentation provided and/or discussion with a physician or provider who had personally interviewed and examined the patient

History of present illness:

1. March 31, 2018: evaluated for PMB and found to have a right adnexal mass on transvaginal ultrasound
2. May 3, 2018: Underwent staging surgery with total abdominal hysterectomy, bilateral salpingo-oophorectomies, and partial omentectomy and washings. Path showed a Stage IC, 12.5 cm Grade 2 endometrioid carcinoma confined to the right ovary. The capsule was partially ruptured during the surgical procedure. No other areas of disease were identified.
3. June 9, 2018: initiated postoperative chemotherapy with paclitaxel and carboplatin, with a plan for either 3 or 6 cycles of therapy.

The patient has been receiving chemotherapy with paclitaxel and carboplatin for her recently diagnosed ovarian cancer. She has some night sweats, hot flashes, and mild peripheral neuropathy, but she is otherwise tolerating her chemotherapy reasonably well. There is a question on whether to give 3 or 6 cycles of adjuvant chemo in this setting. I feel comfortable stopping adjuvant therapy after 3 cycles.

|  |
| --- |
| Case Scenario 3 |
| Primary Site |  | MP Rule |  | Clinical Grade |  |
| Laterality |  |  |  | Pathological Grade |  |
| Histology |  | H Rule |  | Post Therapy Grade |  |
| Behavior |  |  |
| Stage Data items |
| Clinical Tumor Size |  | Pathological Tumor Size |  | Tumor Size Summary |  |
| AJCC Stage |
| Clinical T |  | Pathological T |  | Post-therapy T |  |
| cT Suffix |  | pT Suffix |  | pT Suffix |  |
| Clinical N |  | Pathological N |  | Post-therapy N |  |
| cN Suffix |  | pN Suffix |  | pN Suffix |  |
| Clinical M |  | Pathological M |  | Post-therapy M |  |
| Clinical Stage  |  | Pathological Stage |  | Post-therapy Stage |  |
| EOD & SSDI’s |  |  |  |  |
| Summary Stage 2018  |  | Diagnostic Staging Procedure |  |
| EOD Primary Tumor |  | **Surgery Codes** |
| 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 |  | **Systemic Therapy Codes** |
| 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 |  |