# Case Scenarios

# Case 1

**November 24, 2018: Ultrasound Kidneys and Bladder**

IMPRESSION: There is a large vascular solid mass measuring 5.8 x 5.5 x 3.2 cm in the left wall of the urinary bladder projecting into the lumen concerning for transitional cell carcinoma. Urology consultation is advised.

**December 6, 2018: CT Abdomen & Pelvis**

Findings: A large irregular intraluminal mass is noted arising from the body and fundus of the bladder on the left, measuring 2.6 cm in thickness over an area of 5.9 x 4.7 cm worrisome for neoplasm. An enlarged lymph node is noted in the left external iliac region measuring 1.5 cm.

Nodules of the liver are consistent with hepatic cysts. Moderate uncomplicated diverticulosis of the sigmoid colon. The gallbladder, pancreas, spleen and adrenals are within normal limits. No masses are noted in the imaged lung bases.

**December 23, 2018: Cystoscopy**

Today, a flexible cystoscopy was done to further evaluate the bladder mass noted on recent CT scan. This demonstrates an extensive tumor involving the left anterolateral wall consistent with high-grade urothelial carcinoma. We will arrange for a transurethral resection.

**February 8, 2019: Pathology Report**

Final Diagnosis – Urinary bladder tumor, transurethral resection

* High-grade urothelial carcinoma positive for lamina propria and muscular propria invasion

**April 5, 2019: Initial Consultation**

Impression and Plan: High-grade muscle invasive urothelial carcinoma of the bladder with clinical pelvic lymph node metastases; awaiting full staging with PET/CT. The current plan is if he only has bladder and regional lymph node disease, then we can proceed with aggressive neoadjuvant chemotherapy with subsequent cystoprostatectomy and lymph node dissection. However, this depends completely on the PET/CT results. I told the patient and his family that if he has disease beyond the regional nodes, then we would not proceed with neoadjuvant chemotherapy and rather the intent would be to treat him with palliative chemotherapy with the intent of control.

Addendum: PET/CT indicates the large known bladder tumor occupying the anterolateral aspect of the left side measuring over 5 cm. There is an intensely FDG-avid node in the left iliac chain but no other metastatic disease noted. Therefore, it is agreed to proceed with 4 cycles of neoadjuvant chemotherapy with cisplatin and gemcitabine combination to be followed by radical cystectomy late summer/fall.

**September 7, 2019: Pathology Report**

Final Diagnosis:

1. Bladder tumor, radical cystoprostatectomy
* Invasive high-grade urothelial carcinoma
1. Left external iliac lymph nodes
* One lymph node is positive for metastatic urothelial carcinoma (1/2)
1. Left obturator and internal iliac lymph nodes
* Seven histologically confirmed lymph nodes are negative for metastatic carcinoma (0/7)
1. Left common iliac lymph node
* One lymph node is negative for metastatic carcinoma (0/1)
1. Left presacral lymph nodes
* Four histologically confirmed lymph nodes are negative for metastatic carcinoma (0/4)
1. Right external iliac lymph nodes
* Two histologically confirmed lymph nodes are negative for metastatic carcinoma (0/2)
1. Right obturator and internal iliac lymph nodes
* Five histologically confirmed lymph nodes are negative for metastatic carcinoma (0/5)
1. Right common iliac lymph nodes
* Three histologically confirmed lymph nodes are negative for metastatic carcinoma (0/3)
1. Right presacral lymph nodes
* Five histologically confirmed lymph nodes are negative for metastatic carcinoma (0/5)
1. Para-aortic lymph nodes
* Three histologically confirmed lymph nodes are negative for metastatic carcinoma (0/3)

Procedure: Radical cystoprostatectomy

Tumor Site: Left lateral and anterior wall

Tumor Size: 5.0 x 3.5 x 1.5 cm

Histologic Type: Urothelial carcinoma

Histologic Grade: High grade

Tumor Extension: Tumor invades perivesical soft tissue macroscopically

Margins: Uninvolved by invasive carcinoma and carcinoma in situ/non-invasive urothelial

 carcinoma

Lymphovascular Invasion: Not identified

Regional Lymph Nodes:

 Number of Lymph Nodes Involved: 1

 Number of Lymph Nodes Examined: 32

Extranodal Extension: Not identified

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| Case Scenario 1 |
| Primary Site | C67.8 | Clinical Grade | H | Clinical Tumor Size | 059 |
| Laterality | 0 | Pathological Grade | 9 | Pathological Tumor Size | 999 |
| Histology | 8120 | Post Therapy Grade | H | Tumor Size Summary | 059 |
| Behavior | 3 |  |
| Stage Data items |
| AJCC Stage |
| Clinical T | cT2 | Pathological T |  | Post-therapy T | ypT3b |
| cT Suffix |  | pT Suffix |  | pT Suffix |  |
| Clinical N | cN1 | Pathological N |  | Post-therapy N | ypN1 |
| cN Suffix |  | pN Suffix |  | pN Suffix |  |
| Clinical M | cM0 | Pathological M |  | Post-therapy M | cM0 |
| Clinical Stage  | 3A | Pathological Stage |  | Post-therapy Stage | 3A |
| SS2018/EOD |
| Summary Stage 2018  | 4 – Regional by both direct extension AND regional node(s) involved |
| EOD Primary Tumor | 500 | EOD Regional Nodes | 300 | EOD Mets | 00 |
| Regional Nodes Positive | 01 | Regional Nodes Positive | 29 |  |
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| Treatment |
| Surgery Codes |  | **Systemic Therapy Codes** |
| Diagnostic Staging Procedure | 00 | Chemotherapy | **03** |
| Surgical Procedure of Primary Site | 71 | Hormone Therapy | **00** |
| Scope of Regional Lymph Node Surgery | 5 | Immunotherapy | **00** |
| Surgical Procedure/ Other Site | 3 |  |  |

# Case 2

**MARCH 26, 2019: Cystoscopy**

History: Possible bladder mass on ultrasound

Findings: Normal urethra with no strictures. Moderately enlarged prostate gland with some protrusion of middle lobe. There is a mass arising and involving almost the entire posterior bladder wall on the left-hand side.

Plan: Recommend transurethral resection of this mass and have arranged CT scan.

**APRIL 10, 2019: CT Abdomen and Pelvis**

Summary: Liver, spleen, pancreas normal. Unremarkable appearance of the bowel. Long segment of thickening of the urinary bladder wall posterior left laterally measuring at least 7.8 cm in length in keeping with probable urothelial neoplasm. There is resultant obstruction of the left ureter at the UVJ with moderate hydronephrosis and hydroureter, left renal atrophy and a poorly functioning left kidney. The possibility of low-grade tumor invasion beyond the bladder wall at the left UVJ is raised. Elsewhere, no evidence for perivesicular extension. No distant metastases. No lymphadenopathy or fluid collections.

**APRIL 27, 2019: TURBT**

After induction of general anesthetic, the patient was prepped and draped in usual fashion. A 24-French resectoscope and sheath were passed per urethra into the bladder revealing the right ureteric orifice away from the area of tumor. The left ureteric orifice was not identifiable. The tumor overlaid where the left ureteric orifice should be. We began our resection with superficial and deep bites, extending from midline and going up to the left lateral wall. Hemostasis was achieved and all chips were irrigated out.

Patient tolerated procedure well. Follow-up in 4-6 weeks time.

**APRIL 27, 2019: Pathology Report**

Final Diagnosis: Invasive urothelial carcinoma, high grade, with invasion into muscularis propria.

**JUNE 2, 2019: Operative Report**

Preoperative Diagnosis: Clinically localized muscle invasive urothelial carcinoma of the bladder

Procedure Performed: Radical cystoprostatectomy with extended template lymph node dissection. Creation of an ileal conduit urinary diversion. Left radical nephroureterectomy.

Procedure: A midline incision was made and linea alba fascia incised with cautery. Peritoneum opened sharply and Omni retractor was inserted. The vas deferens was cauterized and cut bilaterally. The ureters were dissected both proximally and distally. Superficial bladder pedicle was taken down bilaterally with the LigaSure impact device. Ureter was clamped and cut where it entered into the bladder.

We then extended the incision up to the xiphisternum. We then dissected along the ureter, up into the left renal hilum. A single left renal artery was identified and dissected out. The left renal vein was then dissected out and tied off. We then mobilized the kidney, preserving the left adrenal gland, and sent it for routine pathological analysis.

The lateral bladder pedicles were taken down and the levator muscles were swept off the prostatic capsule after the endopelvic fascia was incised. The puboprostatic ligaments were cut and eventually the specimen was freed and sent for pathologic analysis.

We performed an extended-template lymph node dissection with the borders being the femoral canal distally, bifurcation of the great vessels superiorly, pelvic sidewall laterally. The lymph nodes along the left external iliac vein appeared to be abnormal and were very adherent.

I was satisfied with the resection and there was no visible disease remaining.

**JUNE 2, 2019: PATHOLOGY REPORT**

Final Diagnosis:

1. Bladder, prostate, seminal vesicles, vas, radical cystoprostatectomy
* Invasive urothelial carcinoma (3.2 cm), high grade
* Invasion of perivesical tissue, microscopically only
* Margins uninvolved
* Positive for lymphovascular and perineural invasion
* One benign lymph node (0/1)
* Prostate normal
1. Lymph Nodes, left external iliac
* Two lymph nodes positive for metastatic urothelial carcinoma (2/2)
1. Lymph Nodes, left obturator and internal iliac
* Six of seven lymph nodes positive for metastatic urothelial carcinoma (6/7)
1. Lymph Nodes, left common iliac
* Six lymph nodes positive for metastatic urothelial carcinoma (6/6)
1. Lymph Nodes, right external iliac
* Three benign lymph nodes (0/3)
1. Lymph Nodes, para-aortic
* Three benign lymph nodes (0/3)
1. Lymph Nodes, right common iliac
* One benign lymph node (0/1)
1. Lymph Nodes, right obturator and internal iliac
* Three benign lymph nodes (0/3)
1. Left kidney and ureter, nephroureterectomy
* Severe hydronephrosis and hydroureter; negative for malignancy

**JULY 18, 2019: CONSULTATION**

Due to decreased renal function, patient is not a candidate for adjuvant chemotherapy. However, a PET scan has been booked to ensure only regional disease.

**JULY 23, 2019: PET Scan**

Status post cystoprostatectomy, left nephrectomy and urinary diversion with FDG avid left supraclavicular lymphadenopathy (11 mm; SUV uptake of 11.7) recommended for biopsy.

**JULY 25, 2019: Left Supraclavicular LN Core Biopsy**

Confirmed positive for metastatic urothelial carcinoma

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| Case Scenario 2 |
| Primary Site | C678 | Clinical Grade | H | Clinical Tumor Size | 078 |
| Laterality | 0 | Pathological Grade | H | Pathological Tumor Size | 032 |
| Histology | 8120 | Post Therapy Grade |  | Tumor Size Summary | 032 |
| Behavior | 3 |  |
| Stage Data items |
| AJCC Stage |
| Clinical T | cT2 | Pathological T | pT3a | Post-therapy T |  |
| cT Suffix |  | pT Suffix |  | pT Suffix |  |
| Clinical N | cN0 | Pathological N | pN3 | Post-therapy N |  |
| cN Suffix |  | pN Suffix |  | pN Suffix |  |
| Clinical M | cM0 | Pathological M | pM1a | Post-therapy M |  |
| Clinical Stage  | 2 | Pathological Stage | 4A | Post-therapy Stage |  |
| SS2018/EOD |
| Summary Stage 2018  | 7 – Distant site(s)/lymph node(s) involved |
| EOD Primary Tumor | 450 | EOD Regional Nodes | 700 | EOD Mets | 10 |
| Regional Nodes Positive | 14 | Regional Nodes Positive | 23 |  |
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| Treatment |
| Surgery Codes |  | **Systemic Therapy Codes** |
| Diagnostic Staging Procedure | 00 | Chemotherapy | 82 |
| Surgical Procedure of Primary Site | 71 | Hormone Therapy | 00 |
| Scope of Regional Lymph Node Surgery | 5 | Immunotherapy | 00 |
| Surgical Procedure/ Other Site | 5 |  |  |