

Pathology Report
03/01/2007

Clinical History: The working history is change in bowel habits; on exam, large obstructing malignant rectal mass, and irregular, hemorrhagic.

Specimen:
Rectum, biopsy

Gross Description:
The specimen, labeled rectal mass biopsies, consists of at least five fragments of tissue measuring up to 1.5 mm; completely submitted.

Microscopic Description:
Sections of the biopsy rectal mass reveal neoplastic disorganized glandular structures infiltrating in a fibrotic inflamed stroma.

Final Diagnosis:
Biopsy of rectal mass: Moderately differentiated invasive adenocarcinoma

Consultation
03/05/2007

Patient is a WDBF referred with a rectal cancer biopsy of a large fungating mass in the lower rectum. This did show adenocarcinoma, moderately differentiated. She is here now for further consultation. She has a CT scan scheduled tomorrow.

Past Medical History:

Allergies: NKDA

Medications: Vitamins. She does not see a doctor regularly.

Operations: None

Illnesses: She said she once had hypertension but not any longer

GYN: She has a daughter

Family History: Negative for colon or rectal cancer

Social History: She denies alcohol or tobacco use.

Review of Systems:

Eyes: Denies visual field problems, blindness or blurry vision

ENT: Denies any significant auditory problem. No difficulty swallowing or significant sore throat. Denies frequent nosebleeds.

Cardiovascular: Denies chest pain or any significant change in blood pressure. Denies orthostatic symptoms.

Respiratory: No significant shortness of breath, cough, hemoptysis or wheezing, frequent pneumonias, etc.

GI: She does have constipation and diarrhea, probably lasting over a year. Denies nausea, vomiting, hematochezia or hematemesis.

Musculoskeletal: Denies any major bone or joint pain. No significant trauma recently.

GU: Denies frequent urination. Denies symptoms of dysuria, hematuria, urinary hesitancy or stones.

Endocrine: Denies any symptoms consistent with hyper or hypothyroidism, fevers, night sweats, etc

Neurologic: Denies any symptoms of paralysis, numbness or headache or depression

Skin: Denies any rashes, abnormal moles or itching

Hematologic: Denies any bleeding or bruising

Radiation Oncology Consult
03/10/2007

Reason for Consult: Evaluation for pre-operative radiotherapy for newly diagnosed rectal cancer

Brief History: This pleasant patient developed crampy lower abdominal pains with bowel habit change over the past few months, and was ultimately referred for diagnostic colonoscopy. On DRE, Dr. noted rectal mass, and colonoscopy confirmed large bulky, irregular hemorrhagic malignant-appearing mass of the rectum approximately 5 cm from the dentate line; this obstructed the lumen and prevented further colonic exam. Biopsies confirmed moderately differentiated invasive adenocarcinoma. She was referred and exam confirmed and will be scheduled for laparoscopic diverting colostomy and Port placement in anticipation of neoadjuvant chemoradiotherapy, possibly on clinical protocol, with later intent for surgical resection. We were thus asked to discuss radiotherapy.

Past Medical History: Newly diagnosed invasive adenocarcinoma with bulky rectal mass; and history of hypertension.

Past Surgical History: Diagnostic colonoscopy; otherwise negative

GYN: She is Gravida 1, Para 1, and continues regular menses. No recent Pap smear. She is not on BCP or HRT.

Allergies: NKDA

Medications: Multi-vitamin and Iron supplement

Family History: Negative for cancer

Social History: She is single and works. A friend accompanies her today.

Habits: She denies a history of tobacco, alcohol or illicit drug use.

Review of Systems: In general, positive for fatigue, and weight loss of about 30 lbs over the past few months from associated anorexia. No sore throat or dysphagia. No chest pain, palpitations, or pedal edema. No cough, SOB/DOE, wheezing or hemoptysis. No N/V, reflux, hematemesis, or bowel incontinence. Crampy lower abdominal pain as noted, with alternating diarrhea and constipation, and occasional BRBPR with straining, but no melena. No significant tenesmus, although she does note narrowed caliber of stools. No significant sacral pressure. No urinary complaint, vaginal discharge or bleeding noted. No new bony aches or pains. All other systems review is negative.

Physical Examination: Vital Signs: Please see chart

General Condition: This well-developed female is fairly comfortable at rest. KPS: 90%

HEENT: Head is normocephalic, atraumatic, extraocular muscles are intact, sclera anicteric

Lymphatics: No noted inguinal or adenopathy otherwise

Lungs: Clear to auscultation bilaterally

Heart: Regular rate and rhythm with no murmurs, rubs or gallops

Abdomen: Soft with no guarding or rebound, masses or organomegaly

Extremities: No noted pedal edema

Rectal: Large, nearly obstructing rectal mass with clinical involvement of the upper posterior vaginal wall, cervix and probably the uterus. Tumor starts at 5 cm from the anal verge. This is semi-fixed but apparently free posteriorly.

Impression: Biopsy-confirmed invasive adenocarcinoma; most likely adenocarcinoma of the rectum, but could also be a uterine primary with rectal extension.

Recommendations: She will undergo diagnostic CT scans, and possibly EUS and air contrast barium enema for pre-operative staging and requirement of clinical protocol. We briefly discussed the NSABP R-04 protocol randomizing neoadjuvant radiotherapy with either IV 5FU or oral Xeloda, for clinical stage II or III rectal adenocarcinomas amenable to possible surgical resection. Hematology/Oncology will see her as well. Today, we briefly reviewed with her the role of radiotherapy, including all indications, risks and benefits, and potential side effects. All of her initial questions were answered and she is agreeable to proceed. We will plan to see her following diverting colostomy and further staging, for final treatment recommendations and chemotherapy. She would be a candidate for the R-08 Protocol which is standard chemo and radiation therapy with randomization between Xeloda and infusional 5FU.

Prior to starting her therapy, I think we are going to need to do a diversion on her. A simple sigmoid colostomy will be done and this will allow her to maintain good nutrition throughout her treatment course and allows completing evaluation of her colon and allowing resolution of her abdominal symptoms. I told her that at this time I thought it was unlikely that she is going to be able to have a sphincter sparing resection but we will see if she gets a favorable response from her radiotherapy and re-evaluate. I will also place a vital port for chemotherapy as I am fairly sure she will need access. She was seen and we will arrange for enterostomal evaluation pre-operatively. In addition, she will need an indirect ultrasound, at least an attempt at it which we can arrange and a colonoscopy which we will arrange post-op once we can prep her adequately after the colostomy. This needs to be done within 42 days for her to be eligible for the Protocol.

Discharge Summary

Date of Admission: 03/14/2007

Date of Discharge: 03/16/2007

Diagnosis: Rectal cancer

Procedure: Diverting sigmoid colostomy and placement of Vital-Port

History of Present Illness: Patient seen with large rectal cancer with obstructive symptoms, large fungating mass in the lower rectum. Scope could not be passed.

Past Medical History: Doesn't see a doctor regularly. Denies allergies. No previous medications or surgery.

Physical Examination: Thin female in no distress.

Head and neck: Without lesions

Chest: Clear

Heart: Sounds regular

Abdomen: Soft without masses, mild distension

Rectal: Large mass about 3-4 cm from the anal verge with significant involvement of the vaginal area up to the cervix

Hospital Course: The patient underwent laparoscopic sigmoid colostomy. No intraoperative findings of disease. The liver appeared normal. The pelvis was without obvious adenopathy on peritoneal inspection. The Vital-Port was also placed. Postoperatively, the patient did well and was discharged on day two. She is to be followed by Enterostomal Therapy, Radiotherapy, Hem/Onc for chemotherapy. The patient is also a candidate for the Swedish rectal cancer trial with capecitabine vs 5-FU.

Operative Report
03/14/2007

Preoperative Diagnosis: Rectal carcinoma

Postoperative Diagnosis: Rectal carcinoma

Procedure(s):

1. Vital port placement
2. Laparoscopic sigmoid colostomy

Anesthesia: General

History: The patient presents with rectal cancer, partially obstructing. Plan was made for diverting ostomy and placement of vital port for chemotherapy.

Procedure: The patient was placed supine and general anesthesia was administered. The abdomen and neck were prepped with Hibiclens and draped. The vital port was placed first. An internal jugular stick was used, right side. A guidewire was threaded and carried to the right chest. After it was placed to the appropriate level, we back tunneled into the pocket and connected to the port. The port was anchored in place, flushed and aspirated well. The pocket was closed with 3-0 chromic and Steri-Strips.

Next, the dressings were applied and the area was draped out. The abdominal portion was done. Three-trocar technique was used, one 12 and two 5s in the lower abdomen. The colon was seen to be chronically thickened secondary to partial obstruction. The pelvis had no signs of disease from the peritoneal side. There were no signs of peritoneal metastases.

The colon was mobilized laterally, taking down its attachments. The colon was marked was orientation. A suitable segment of sigmoid colon was then carried through an ostomy opening in the left lower quadrant. A cruciate incision was made and the bowel was delivered. An Endoloop colostomy was then performed extracorporeally using 3-0 Vicryl, maturing a small portion of the distal end for decompression. The incision was then closed with Vicryl. The patient then went to Recovery in stable condition.

Radiation Oncology Consult
03/22/2007

We previously saw the patient on diagnosis of rectal adenocarcinoma, found on work-up of lower abdominal pain with abnormal colonoscopy. She then underwent laparoscopic diverting colonoscopy and Port placement on 03/14/2007 in anticipation of neo-adjuvant chemoradiotherapy possibly on clinical protocol, with later intent for surgical resection. Today, she states that the colostomy is working fairly well, bowel movements are fairly regular, and appetite has improved. The Port is in place, but she has yet to see her physician for follow-up, or decide as to the clinical trial, which would compare XRT with IV 5FU vs oral Capecitabine. Exam today confirms a large low lying rectal mass. Today, we again reviewed with her the role of radiotherapy, including all indications, risks and benefits, and potential side effects. All of her questions were answered and she was agreeable to proceed. Informed consent was obtained. She underwent initial simulation; we will plan to deliver a dose of approximately 45 Gy to the whole pelvis, over five weeks, followed by boost of an additional 5.4 Gy. She will decide as to participation in the clinical trial, and we have scheduled her for follow-up in anticipation of initiation of chemotherapy.

Discharge Summary

Date of Admission: 06/15/2007

Date of Discharge: 06/23/2007

Diagnosis: Rectal cancer

Procedure: Abdominal perineal resection

History of Present Illness: Seen for locally advanced rectal cancer. She has undergone preoperative radiation and chemotherapy and preoperative diverting colostomy due to impending obstruction. She is here now for definitive surgical procedure.

Past Medical History:

Allergies: None

Meds: None

Previous Surgeries: Diverting colostomy and Vital-Port placement.

Medical Illnesses: None

Physical Exam: Thin in no distress

Neck: Without lesions

Chest: Clear

Heart: Sounds regular

Abdomen: Nontender. Ostomy present in left lower quadrant.

Rectal: Persistent palpable mass following radiotherapy fairly hard and appeared to involve the posterior vagina and possibly cervical area

Neuro: Intact

Rest of physical unremarkable

Hospital Course: The patient was admitted for surgery and underwent an abdominal perineal resection as well as total abdominal hysterectomy, posterior vaginectomy and bilateral salpingo-oophorectomy. The patient recovered well and had nausea and vomiting beginning about five days postop which resolved spontaneously with no specific management. Having stool and tolerating regular diet and moving well. Ostomy was left in place in the left lower quadrant. Wounds appeared to be healing well.

Final pathology showed advanced T4 in the rectum and was involving the posterior vagina with a rectovaginal fistula as well as 10 of 10 positive lymph nodes in the specimen. Would consider further adjuvant therapy postop at her next Clinic visit in one week. Prescriptions for Phenergan and Lortab were given. Will see the patient in one week in Clinic.

Operative Report
06/15/2007

Preoperative Diagnosis: Carcinoma of rectum, locally advanced

Postoperative Diagnosis: Same

Procedures:

1. Abdominoperineal resection
2. Total abdominal hysterectomy
3. Bilateral salpingo-oophorectomy
4. Posterior vaginectomy

Anesthesia: General

History: This patient presented with locally advanced rectal cancer with adjacent organ involvement, posterior vagina, and cervical area. She underwent preoperative radiotherapy and is now here for surgical resection.

Procedure: Patient placed supine. General anesthesia administered. Prepped with Hibiclens and draped. Pelvis also prepped and legs placed in stirrups. The abdomen was explored through a midline incision. The abdomen was entered. The liver showed no signs of metastatic disease. The rest of the peritoneal surfaces were free of disease. The procedure began by taking down the distal limb at the loop colostomy in the left lower quadrant. The colostomy was left open. In fact, the appliance was left intact and in place during procedure. The bowel was transected with a linear cutter. The mesenteric vessels taken with the Harmonic scalpel and the pelvis were dissected. Both ureters were carefully identified and preserved.

Attention was turned towards pelvis. The plan was en bloc resection of the uterus, ovaries, tubes, and posterior vagina due to preoperative findings. The vessels were identified and ligated. Round ligaments ligated and divided. Bladder flap created anterior to the cervix and vagina. The uterine vessels were identified and ligated. The rectum was dissected posteriorly using Harmonic scalpel on the lateral stalks. As wide mesorectal resection was done as possible. It was resected posteriorly to the tip of the coccyx, laterally to the anterior wall of the vagina. The anterior wall opened. The posterior wall was excised with the specimen. The specimen mobilized adequately anteriorly.

Perineal dissection was done. The posterior wall of the vagina and entire anal opening were included in the perineal specimen. The dissection carried out parallel to the rectum into the ischioanal space transecting the levator ani muscles. The pelvis was entered posteriorly and dissection continued anteriorly along the posterior vaginal wall resecting this with the specimen. The entire specimen was then freed and delivered through the pelvis. Specimen inspected. An ulceration was seen and direct invasion of the upper posterior vaginal wall was noted; however, margins appears grossly quite adequate.

With control of all bleeding, the vagina was reconstructed with a running 2-0 Vicryl suture. All bleeding was controlled. The viscera allowed to enter the pelvis. A suction drain was placed in the peritoneal closure. The perineum also closed with 2-0 Vicryl. The abdomen was irrigated. All bleeding controlled and the abdomen was closed with interrupted PDS suture in the midline incision with staples for skin.

Pathology Report
06/15/2007

Specimen:

1. Colon
2. Uterus with tubes and ovaries

Gross Description:

The specimen, labeled rectum, uterus, tubes, ovaries, and post wall of vagina, consists of 22 cm in length of rectum, a hysterectomy specimen with attached cervix and bilateral adnexa and 7.5 cm of posterior vaginal wall. The rectum has a moderate amount of attached tan/yellow lobular adipose tissue. There is a palpable mass at the distal section of the rectum. The rectum is opened to reveal a circumferential ulcerated mass, measuring 4.0 x 3.5 x 1.5 cm. The mass is 5.0 cm from the distal rectal resection margin and 17.0 cm from the proximal rectal resection margin. The mass has a maximum depth of 2 cm and invades through the wall and forms a fistula with the posterior vaginal wall. No involvement of the uterus or cervix is appreciated. The remaining rectal mucosa is tan/pink and glistening with normal folds. The vaginal wall mucosa is tan/pink glistening and wrinkled. The uterine body measures 7.5 x 8.0 x 4.0 cm and the attached cervix measure 3.5 x 3.5 x 3.2 cm. The serosa is tan pink, smooth and glistening. The uterus is bivalved to reveal a 2.5 cm in length tan, mucinous, corrugated, endocervical canal. The triangular endometrial cavity measuring 4.5 x 2.0 cm and is surfaced by tan, focally congested endometrium. The left ovary measures 2.5 x 1.5 x 0.3 cm and has a tan, lobular surface. Serial sectioning reveals a tan/pink fibrotic stroma. The attached fimbriated fallopian tube measures 4.5 cm in length by 0.8 cm in diameter and is surfaced by tan/pink to purple smooth glistening serosa.

Final Diagnosis:

Rectum, AP resection with hysterectomy: Deeply invasive moderate to poorly differentiated mucinous adenocarcinoma; gross tumor size 4.0 x 3.5 x 2.3 cm; tumor involves adjacent vaginal wall; angiolymphatic permeation by neoplasm identified; distal margin free by 3.0 cm; metastatic carcinoma identified in 10 of 10 lymph nodes.

Uterus with bilateral fallopian tubes and ovaries: Involvement of posterior vaginal wall by mucinous adenocarcinoma; tumor approaches the posterior cervix within 2.0 mm; uterus with atrophic endometrium; unremarkable underlying myometrium; cervix with severe chronic active cervicitis with atrophic change of epithelium; bilateral fallopian tubes and ovaries with no evidence of neoplasm.

Type of Specimen: AP resection with adjacent uterus

Location: Anterior rectal wall

Tumor Size: 4.0 x 3.5 x 1.5 cm

Tumor Configuration: Ulcerated mass

Histologic Type: Mucinous adenocarcinoma

Histologic Grade: 2

Depth of Invasion: Through the wall into adjacent organ

Peritoneal Involvement: Present
Lymph/Vascular Invasion: Present
Surgical Margins: Free of neoplasm
Distance from Closest Margin: 3.0 cm from distal margin
Distance from Radial Margin: Tumor involves adjacent vaginal wall
Regional Lymph Node Status: 10/10 positive for metastatic carcinoma
Extranodal Extension: Present
Additional Pathologic Findings: Fistula
Other Studies: Not performed

AJCC Pathologic Stage:
(Completed by Pathologist based only on tissue findings, more extensive disease may not be known to the Pathologist)
pT=4 pN=2 pM=x AJCC Pathologic Stage: Stage IIIC

Radiation Oncology Consult
09/01/2007

Diagnosis: Stage IIIC (T4N2M0) moderately to poorly differentiated rectal adenocarcinoma

Brief History: This pleasant patient recently completed neoadjuvant chemoradiotherapy on NSABP R-04 clinical trial, randomized to the oral Capecitabine, following laparoscopic diverting colostomy. Staging CT of the abdomen and pelvis had confirmed irregular rectal mass with suspicion of ill-defined perirectal extension, but no evident adenopathy, liver involvement or pelvic fluid. A chest x-ray was negative. She tolerated radiotherapy well overall, and following completion underwent APR with TAH-BSO and posterior vaginectomy on 06/15/2007 for noted ulceration and direct invasion of the upper posterior vaginal wall. Final pathology confirmed deeply invasive moderate to poorly differentiated mucinous adenocarcinoma with involvement of the posterior vaginal wall, approaching the posterior cervix within 2 mm, but unremarkable underlying myometrium, there was rectovaginal fistula associated. The bilateral fallopian tubes and ovaries were negative. Gross tumor measured 4 cm maximally, but surgical margins were clear. There was angiolymphatic permeation, and peritoneal involvement. There was metastatic carcinoma in 10/10 resected lymph nodes. Postoperatively, she had some difficulty with N/V, with some smell aversion, but is now tolerating solid foods in small portions. Energy is improving overall, and the colostomy is functioning fairly well. No new complaints others.

Directed Physical Examination: The abdominal surgical incisions are healing well, with no evident erythema, warmth of drainage. Stoma appears healthy. No new exam findings otherwise.

Impression: We will plan to deliver additional post-op radiotherapy, to be coordinated with further chemotherapy given locally advanced disease with high risk of local recurrence. She will return for re-evaluation in our department in approximately two weeks, and we will arrange follow-up as well. Today, we also prescribed trial of Reglan 10 mg to take qac and hs, #60 with 3 refills, for residual nausea and probable mild gastroparesis.

Radiation Oncology Consult
12/20/2007

Brief History: This pleasant patient previously completed neoadjuvant chemoradiotherapy on NSABP R-4 clinical trial randomized to oral capecitabine following diverting colostomy for rectal adenocarcinoma. Following completion of that, she underwent APR with TAH-BSO, and posterior vaginectomy. She had findings of locally advanced disease, including involvement of the vagina with rectovaginal fistula associated. Surgical margins were clear, but there was angiolymphatic permeation, peritoneal involvement and metastatic carcinoma to 10/10 resected lymph nodes with extranodal extension. As such, she received further FOLFOX chemotherapy which she tolerated generally well, with some peripheral neuropathy and fatigue. Subsequent follow-up CT scan of the abdomen and pelvis was essentially negative except for post-surgical changes and constipation. She does note stool variability, but denies abdominal/pelvic pain, vaginal discharge, bleeding or urinary complaints. Appetite is good, and energy improving. Counts have been relatively stable; she now presents for adjuvant radiotherapy for local control.

Directed Physical Examination: Weight is stable at 164 lb. HEENT is unremarkable. No noted adenopathy. Lungs are clear. Heart has regular rate and rhythm. Abdomen is soft; she has well healed midline abdominal scar, and colostomy of the left lower quadrant. No masses, or tenderness or organomegaly. On rectal exam, she has well healed perianal scar and no masses of the stump. No palpable mass on vaginal exam. No pedal edema. No new exam findings otherwise.

Impression: Good tolerance of multimodality treatment; to have further adjuvant radiotherapy.

Recommendations: Today, she underwent simulation for IMRT-based planning. We anticipate dose of 25/30 Gy to the pelvis with concomitant Xeloda. We will begin treatment shortly.

Addendum 12/20/2007: CT shows bowel filling the pelvis, some of which I'm sure has previously been irradiated to 50 Gy already. I do not see any gross disease on this unenhanced CT scan. I believe additional radiotherapy to the nodal regions at highest risk for recurrence would put her at an even higher risk for a radiation induced bowel injury, even with IMRT planning. In this situation, I believe the risk would outweigh the benefit. I don't think we should deliver the planned course of radiotherapy. We may be able to treat later if she develops a localized recurrence. This will be conveyed to the patient.