

Breast Case # 1

HISTORY AND PHYSICAL

Date: March 01, 2010

CHIEF COMPLAINT: Abnormal mammogram right breast

HISTORY OF THE PRESENT ILLNESS: The patient is a 64 year old Caucasian female who had a mammogram and ultrasound performed, which revealed a suspicious spiculated lesion in the right breast at the 3 o'clock position. The patient's last mammogram prior to the most recent was, I believe, a couple of years ago. The patient herself denies any symptoms referable to the breast whatsoever. The patient has a past history of having a mastectomy performed in 1998 for breast cancer. She did not receive any adjuvant treatment and I presume this is a lymph node negative malignancy, although I do not have any final pathology on this. She was administered five years of hormonal treatment. The patient now comes in for further recommendations.

IMPRESSION: Indeterminate lesion, right breast. Rule out malignancy.

PLAN: The patient will undergo an ultrasound-guided core biopsy today and further recommendations will be based upon the results of the biopsy. I will see her March 6th for biopsy result and discuss further recommendations at that time.

HISTORY AND PHYSICAL #2

Date: April 24, 2010

History of Present Illness:

The patient is here for recheck after having a re-excision of the lumpectomy margins on April 13th. The patient is very disappointed that we were not able to proceed with the MammoSite catheter radiation, but I do not feel that there was enough space between the skin surface and the balloon, and also was very concerned with her wound healing at the time of the repeat lumpectomy. Her Oncotype DX came back with a score of 34 putting her at high risk, that is, 24% at 10 years. She has started radiation therapy today. She will be referred for an oncology consult.

PROGRESS REPORT

Date: March 15, 2010

The patient is a very nice 64 year old Caucasian female who has a history of carcinoma of the left breast treated with mastectomy in the past. The patient presented with a new lesion in the right breast on imaging. This was biopsied and proven to be consistent with a carcinoma. This was an ER and PR positive carcinoma about 1.4 centimeters in size. The patient is to proceed with breast conservation at her request. We will place a temporary MammoSite balloon catheter and radiate. If things go well with the MammoSite, she will receive partial breast radiation. We will get the patient scheduled at the earliest time possible.

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RADIOLOGY REPORT

Procedure: Diagnostic Mammography Unilateral Digital

Date: February 13, 2010

Reason for Exam: History of Breast Cancer

BC Mammo Diagnost Unilat Digital: UNILATERAL RIGHT DIGITAL DIAGNOSTIC MAMMOGRAM WITH MEDIOLATERAL SPOT COMPRESSION. COMPARISON IS MADE TO MAMMOGRAM DATED 2/16/2007.

The tissue of the right breast is predominantly fatty. There is a 2.0 cm irregular mass with a spiculated margin in the right breast at 3 o'clock anterior depth. The mass is confirmed on additional views. No other significant masses or calcifications are seen in the breast.

IMPRESSION: HIGHLY SUGGESTIVE OF MALIGNANCY

The 2.0 cm irregular mass in the right breast likely represents carcinoma and is indeterminate. An ultrasound and biopsy are recommended.

Procedure: Right Breast Ultrasound. Mass in breast on mammogram.

CLINICAL INFORMATION: 64 year old female with spiculated mass on diagnostic mammogram.

Transverse and longitudinal real time imaging through the right breast at the 3 o'clock position shows a 1.1 x 1.1 x 1.4 cm irregular hypoechoic mass corresponding to the mammographic abnormality. This is highly suspicious for a cancer. The borders are irregular and there is a posterior shadowing. No additional masses are seen in the area.

IMPRESSION: Suspicious irregular hypoechoic mass in the right breast at 3 o'clock position corresponding to the mammographic abnormality. This area should be biopsied to confirm a histologic diagnosis.

BIRADS IV- Suspicious abnormality – patient will be scheduled for a needle core biopsy.

US CORE BIOPSY

DATE: MARCH 01, 2010

FINAL REPORT: ULTRASOUND GUIDED CORE BIOPSY RIGHT BREAST:

This procedure was performed for the 1.4 cm mass located in the middle depth at 3 o'clock as described on the previous ultrasound. The mass was localized and a small incision was made in the breast. An 18 gauge biopsy needle was placed into the mass guided by ultrasound. Once the needle was in the mass, three core specimens were obtained at different sites within the mass using guided by ultrasound. Post procedure images of the breast show partial removal of the mass. Awaiting pathology results. A surgical consult is recommended.

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OPERATIVE REPORT

PROCEDURE #1

Date: 03/23/2010

PREOPERATIVE DIAGNOSIS: Carcinoma of the right breast.

POSTOPERATIVE DIAGNOSIS: Same.

PROCEDURE:

1. Ultrasound guided needle localization for right lumpectomy
2. Right axillary sentinel lymph node localization and biopsy

FINDINGS OF OPERATION: Negative sentinel nodes on frozen section evaluation. These nodes were hot with counts about 164 and were stained blue.

SPECIMEN:

1. Sentinel nodes right axilla.
2. Right lumpectomy with a long suture margin to the lateral margin, short suture marking to superior margin.

COMPLICATIONS: None.

PROCEDURE #2

Date: 04/12/2010

Operation: Reoperative Segmental Resection

Specimen: Inferior and anterior margin with a suture marking of new margin.

Brief History: 64 Caucasian female s/p sentinel node biopsy few weeks ago. Anterior and inferior margins were close, here for re-excision. Patient interested in Mammosite catheter radiation. Planned as part of procedure.

Procedure: Lumpectomy performed by excising the anterior and inferior margin sharply with electrocautery. Unfortunately, the superficial margin that is the anterior margins was not anywhere near even 7mm. I didn't think it wise to place the Mamma site balloon catheter for fear of having radiation close to the skin. Wound irrigated, layers closed. Patient taken to recovery room in stable condition.

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PATHOLOGY REPORT

REPORT #1

Date Specimen Collected: 3/01/2010

Date Specimen Reported: 03/02/2010 S07-2378

Clinical History: History of left mastectomy, mass right breast 3 o'clock

FINAL DIAGNOSIS: RIGHT BREAST, 3'OCLOCK, NEEDLE CORE BIOPSY: INFILTRATING MAMMARY CARCINOMA, INTERMEDIATE GRADE, NOTTINGHAM SCORE 3+2+1=6. NO MICROCALCIFICATIONS ENCOUNTERED.

Gross Description: Received in formalin labeled Breast Case 1 and "right breast biopsy" are multiple cores of fibrofatty tissue from minute to 1.5 x 0.1 cm which are filtered and submitted in total in cassette A1.

Microscopic Description: Microscopic examination performed. E-cadherin stains show strong membrane positivity in tumor cells.

HORMONE RECEPTOR STATUS: ESTROGEN RECEPTOR (IHC): POSITIVE. PROGESTERONE RECEPTOR (IHC): NEGATIVE. HER-2/NEU ONCOGEN (FISH): PENDING, SEE ADDENDUM REPORT.

ADDENDUM DIAGNOSIS: RIGHT BREAST, HER-2/NEU (FISH): NOT AMPLIFIED: The HER-2/cen-17 ratio = 1.3

IMPRESSION: This lady would appear to have a T1 primary breast carcinoma, ER positive, and is interested in breast conservation. She was not interested in reconstructive surgery to her left breast at this particular juncture. Following a discussion of local management options, she wished to consider the option of partial breast radiotherapy. She appears to be a good candidate for postoperative hormonal adjuvant therapy and may be a candidate for systemic chemotherapy, depending on the remainder of her clinical features. Her surgical management will likely consist of a wide local excision and sentinel lymph node biopsy. MammoSite catheter insertion could be entertained if appropriate at that particular time. Should her sentinel lymph node biopsy prove positive, an axillary dissection would likely be necessary. I will plan to arrange for Radiation Oncology consultation next week and I will plan to see her back approximately two weeks postoperative to make additional management plans.

REPORT #2

Date Specimen Collected: 03/23/2010

S07-3272

Date Specimen Reported: 03/25/2010

Source: A. Sentinel node right breast. B. Right Lumpectomy

FINAL DIAGNOSIS

A. Lymph Node, Right Axilla, Sentinel nodes (6): Negative for malignancy.

B. Right Breast Lumpectomy: Infiltrating mammary carcinoma (1.5 x 1.5 x 0.9 cm.).

Intermediate grade. Nottingham score 3+2+1=6

Breast Case # 1

Ductal carcinoma in situ (High grade, comedo pattern) present.
DCIS extends to anterior margin. Nearest margin (anterior) less than 1 mm. No vascular/lymphatic invasion.

Hormone Receptor Status (See 07-2378): Estrogen Receptor (IHC): Positive. Progesterone Receptor (IHC): Negative. HER-2/neu (FISH): negative
TNM Stage: T1c N0 MX

Gross Description:

A. Received fresh "sentinel node right", 2.5 cm adipose tissue with six lymph nodes identified from 0.5 x 0.2 x 0.2 cm to 1.7 cm.

B. "Right Lumpectomy" is 5.5 x 5 x 2.7 cm ovoid fibrofatty breast tissue. There is a 1.5 x 1.5 x 0.9 cm firm tumor nodule focally approaching the anterior margin. Other margins clear.

Microscopic Description: Microscopic examination performed.

Breast: Complete Excision

MACROSCOPIC:

Specimen Type: Excision

Lymph Node Sampling: Sentinel lymph node(s) only

Specimen Size: 5.5 x 5 x 2.7

Laterality: Right

Tumor Site: Not Specified

MICROSCOPIC:

Size of Invasive Component: 1.5 x 1.5 x 0.9 cm

Histological Type: Ductal carcinoma in situ, Invasive ductal carcinoma

Histological Grade: 3+2+1=6 Grade II

TNM Staging: T1c Tumor more than 1.0 cm but not more than 2.0 cm in greatest dimension
N0 No Regional Lymph Node mets (ie, none greater than 0.2 mm,), no additional examination for isolated tumor cells

MX Cannot be assessed

Margins: Margins(s) involved by invasive carcinoma. Anterior margin.

Margins(s) involved by DCIS. Anterior margin.

Venous/Lymphatic (Large/Small Vessel) Invasion: Absent

Microcalcifications: Not identified

Hormone Receptor Study: Ordered

CSv2 ANSWER WORKSHEET

FIELD#	FIELD NAME	CODE AND RATIONALE/DOCUMENTATION	
1	Patient Name - Breast Case 1		
CANCER IDENTIFICATION			
2	Primary Site	C508	New cancer: >5 years following L breast cancer
3	Histology	8500	
4	Behavior	3	
5	Grade	2	
6	Grade system type		
7	Grade value		
8	Lymph-vascular invasion	0	
STAGE OF DISEASE AT DIAGNOSIS			
9	CS Mets at Dx - Bone	0	
10	CS Mets at Dx - Lung	0	
11	CS Mets at Dx - Liver	0	
12	CS Mets at DX - Brain	0	
COLLABORATIVE STAGING			
13	CS Tumor Size	015	
14	CS Extension	100	
15	CS Tumor Size/Ext Eval	3	
16	CS Lymph Nodes	00	
17	CS Lymph Nodes Eval	3	
18	Regional Nodes Positive	00	
19	Regional Nodes Examined	06	
20	CS Mets at Dx	00	
21	CS Mets Eval	00	
22	CS Site-Specific Factor 1 ERA	010	IHC +
23	CS Site-Specific Factor 2 PRA	020	IHC -
24	CS Site-Specific Factor 3 # AX LN	000	
25	CS Site-Specific Factor 4 IHC - ITC	000	Node -, unknown if test done
26	CS Site-Specific Factor 5 RT - ITC	000	Node -, unknown if test done
27	CS Site-Specific Factor 6 Which TS	000	Conflicting info. Size of invasive comp stated as 015
28	CS Site-Specific Factor 7 SBR	060	3+2+1
29	CS Site-Specific Factor 8 IHC HER2 Result	998	Assume test not done
30	CS Site-Specific Factor 9 IHC HER2 Interp	998	Assume test not done
31	CS Site-Specific Factor 10 FISH HER2 Res	130	
32	CS Site-Specific Factor 11 FISH HER2 Interp	020	Not amplified
33	CS Site-Specific Factor 12 CISH HER2 Res	998	Assume test not done
34	CS Site-Specific Factor 13 CISH HER2 Interp	998	Assume test not done
35	CS Site-Specific Factor 14 Other HER2 Interp	998	
36	CS Site-Specific Factor 15 Summary HER2	020	
37	CS Site-Specific Factor 16 Comb ER,PR,HER2	100	ER+,PR-,HER2-
38	CS Site-Specific Factor 17 CTCs	998	Assume test not done
39	CS Site-Specific Factor 18 DTCs	998	Assume test not done
40	CS Site-Specific Factor 19 Ax LN Assess	000	No ipsilateral axillary nodes were positive
41	CS Site-Specific Factor 20 Dist Mets Assess	000	
42	CS Site-Specific Factor 21 Neoadj Response	998	
43	CS Site-Specific Factor 22 Multigene Method	010	OncogeneDx
44	CS Site-Specific Factor 23 Multigene Score	034	Score = 34%
45	CS Site-Specific Factor 24 Page1	999	No mention in pathology report
46	CS Site-Specific Factor 25 Not Applicable	988	

CSv2 ANSWER WORKSHEET

Rational for specific data elements:

Colorectal and Appendix Case #5

DISCHARGE SUMMARY

Discharge date: 4/5/2010

Admitting diagnosis: Obstructing mass in the ascending colon.

Discharge diagnosis: Colon cancer.

Hospital course: This is a 42-year-old female who came to my office with problems with increasing abdominal pain and had a weight loss of approximately 20 pounds that had been occurring over several months. Outpatient CT scan revealed inflammation near her cecum and in her ascending colon and a sed rate of 80. An urgent colonoscopy was done, which showed a near obstructing lesion in her ascending colon near her hepatic flexure. She was admitted following colonoscopy. Surgeon performed a right hemicolectomy of an apple-core lesion, consistent with colon carcinoma. The lesion had extended beyond the wall of the colon and into adjacent muscle tissue.

The patient's postoperative course went very well. She will be undergoing chemotherapy in the near future following the port placement. Radiation may also be recommended.

HISTORY & PHYSICAL

Date: 3/26/2010

History of present illness: This is a 42-year-old female who has been having nonspecific generalized abdominal cramping for several months. Additionally, she has lost approximately 20 pounds over the past 7 or 8 months. She initially attributed this to intentional weight loss. Her abdominal pain did not respond. She denies any nausea or vomiting. She denied any changes in bowel habits or any blood in her stool. Outpatient CAT scan revealed inflammation in her cecum, and her ascending colon had a sed rate of 81. She was referred urgently for a colonoscopy. Colonoscopy today reveals a near obstructing lesion at the hepatic flexure.

Physical exam: Abdomen is soft, non-distended. Recent exam revealed a generalized tenderness, right greater than left. No masses were appreciated or bruits.

Assessment/plan: Patient with colon mass, near obstructing. She is now admitted for surgical resection. Check CEA level. Patient cleared for surgery from a cardiovascular standpoint.

CONSULT

Date: 3/30/2010

Reason for referral: Colon cancer.

History of present illness: The patient is a 42-year-old woman who is recovering from surgery for right hemicolectomy for newly diagnosed colon cancer. See History & Physical for more on

Colorectal and Appendix Case #5

history of present illness. She was referred for colonoscopy. This was performed on the day of admission. Results revealed an apple core lesion at the hepatic flexure. During the endoscopy the ascending colon and cecum were not evaluated. Pathology of the apple core lesion revealed adenocarcinoma; this was moderately differentiated. With these results, surgery was consulted. Surgeon proceeded with a laparoscopic exploration and noted that the colon mass at the hepatic flexure was adherent to the lateral abdominal wall. This required laparotomy with resection of the tumor en bloc with removal of sections of the abdominal wall. Pathology is pending on this. She is currently recovering from surgery.

Patient has family history of colon cancer in father and paternal grandfather. Her paternal grandmother had uterine cancer. There has been no evaluation for hereditary cancer syndromes.

Physical exam: No abdominal masses or organomegaly. No preauricular, occipital, cervical, supraclavicular, axillary, trochlear, or inguinal adenopathy.

Lab data: CEA obtained on March 26 reveals an elevated level of 7.6; this was preoperatively.

Radiographic data: CT scan of the abdomen dated March 16 shows diffuse, thickened cecum with inflammatory changes extending up the ascending colon consistent with focal colitis.

Assessment/plan: This is a 42-year-old woman with newly diagnosed colon cancer. She is status post en bloc resection of the colon lesion which was adherent to the abdominal wall. She is recovering from her surgery. The final pathology from her surgical excision is not available. I will await final pathology reporting prior to making further recommendations related to chemotherapy, which is likely to be recommended. This was discussed with the patient. She does have a strong family history of colon cancer. Given that she is diagnosed in her 40's, it is reasonable to pursue testing for hereditary cancer syndromes, notably the Lynch syndrome. I will obtain microsatellite instability testing on the tumor as well as staining for non-polyposis gene mutations.

LAB REPORT

Date: 3/27/2009

Immunohistochemistry: Immunohistochemical staining for MSH-1 shows positive staining in the majority of the tumor cells. There is strong positive staining for MSH-2 in tumor cells.

IMAGING REPORT

Date: 3/16/2010

Procedure: CT of pelvis with contrast.

Findings: Liver, spleen, gallbladder, pancreas, adrenal glands, and kidneys are unremarkable. There is diffuse thickening involving the cecum and the ascending colon with some inflammatory changes seen in this region. The rest of the bowel is grossly unremarkable. There

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is enlargement and slight irregularity of the uterus which appears to veer to the left slightly. Suggest clinical correlation with ultrasound.

Impression: Diffuse thickened cecum with inflammatory changes surrounding extending up the ascending colon consistent with a focal colitis; further evaluation and clinical correlation is warranted. Please note the appendix is never truly visualized.

Addendum 3/24/2010: It appears that the entire right colon is involved with irregularly thickened edematous walls. Cannot clearly identify the terminal ileum. The loops of small bowel in the mid and upper abdomen appear to be somewhat thickened, as well as the duodenal loop; there is minimal contrast in these loops however. No obstructive pattern seen. No ascites or adenopathy.

There appear to be inflammatory changes in the entire right colon. Small bowel inflammatory change appears likely although not fully opacified and distended. Differential diagnosis would include typhlitis; Crohn's disease involving the colon and small bowel may be present; small bowel pathology may be better evaluated with small bowel series.

OPERATIVE REPORT #1

Date: 3/26/2010

Procedure: Upper endoscopy and colonoscopy.

Indications: Abdominal pain and abnormal CT scan.

Findings: Hypopharyngeal structures and cords were seen and were normal. Esophagus was seen in its entirety from the upper esophageal sphincter to the stomach. The patient had a very short sliding hiatus hernia. The lower esophagus seemed intact. Stomach was seen in its entirety including the cardia and fundus and was normal. A CLOtest and biopsy were taken from normal appearing distal antrum. The duodenal bulb was neither ulcerated nor deformed. The descending duodenum was normal. Biopsies were taken from normal appearing small intestine. The rectum was seen in its entirety and normal. The sigmoid was quite tortuous, but aside from small diverticuli, was unremarkable. The descending colon was within normal limits. At the transverse colon and hepatic flexure area which was ballotable with indentation of the colon wall there was an apple core exophytic stenotic bleeding lesion which was biopsied. Ascending colon and cecum were not entered.

Impression:

1. Apple core lesion hepatic flexure.
2. Short sliding hiatus hernia.

Recommendation:

1. CBC and a CEA.
2. Flat and erect of the abdomen to be certain there is no free air and to try to ascertain the degree of obstruction above the lesion of the hepatic flexure.
3. Observe and possibly admit this patient.

Colorectal and Appendix Case #5

4. Surgical consultation for colon resection.

OPERATIVE REPORT #2

Date: 3/27/2010

Preoperative diagnosis: Apple core lesion, right hepatic flexure

Postoperative diagnosis: Apple core lesion, right hepatic flexure with extension in the lateral abdominal wall.

Procedure: Right hemicolectomy with en bloc resection of internal oblique extension of colonic tumor.

Findings: The peritoneal cavity was entered. The abdomen was explored. The patient was seen to have a baseball size lesion present at the right hepatic flexure. This was densely adhered to and invaded the lateral and posterior aspects of the abdominal wall. The colonic mesentery appeared to have several enlarged lymph nodes.

PATHOLOGY REPORT #1

Date: 3/26/2010

Specimen description:

1. Small intestine.
2. Antrum.
3. Hepatic flexure.

Gross description:

1. Four fragments of pale tan tissue ranging in dimension from 0.1 to 0.2 cm.
2. One fragment of pale tan tissue measuring 0.2 x 0.2 x 0.2 cm.
3. Multiple fragments of pale tan tissue ranging in dimension from 0.2 to 0.3 cm.

Microscopic description:

1. Sections of small intestinal mucosa reveal normal thickness, gland density, and villous architecture. The epithelial surfaces are intact and normal without lymphocytic infiltrate. The lamina propria is normal. No malignancy is identified.
2. Gastric non-oxyntic mucosa appears normal in thickness and gland density. The lamina propria contains occasional widespread lymphocytes but is free of inflammatory infiltrates. The epithelial surface is intact and free of exudates. Scattered small, poorly formed lymphoid clusters are present near the muscularis. No acute inflammatory processes are noted. No helicobacter are identified.
3. Represented are multiple irregularly shaped fragments of a malignant glandular neoplasm admixed with fragments of colonic mucosa. The glandular tissues consist of solid masses of cells within which are numerous smaller gland spaces as well as solid, infiltrating sheets of malignant cells within a fibrotic stroma. Interstitial material suggestive of mucin is found within gland spaces and in some areas outside of glands.

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Cells are intermediate in size with small quantities of lightly basophilic cytoplasm. Cytoplasmic vacuoles are identified. Nuclei exhibit moderate pleomorphism with many angulated, hyperchromatic forms and numerous large nucleoli. The fragments are entirely occupied by malignancy and do not allow proper orientation. One fragment consists of colonic mucosa with a moderately intense chronic active inflammatory infiltrate and prominent but uniform glandular nuclei suggesting reactive change. In these fragments no adenocarcinoma is identified.

Diagnosis:

1. Small intestinal mucosa with no significant histopathologic abnormalities.
2. Gastric non-oxyntic mucosa (submitted as antrum) with minimal, nonspecific chronic inflammation. No helicobacter are identified. No malignancy is identified.
3. Fragments of colonic mucosa (submitted as hepatic flexure):
 - Moderately differentiated adenocarcinoma with focally prominent mucin production.
 - Fragment of nonmalignant colonic mucosa exhibiting chronic active inflammation and reactive glandular atypia.

PATHOLOGY REPORT #2

Date: 3/27/2010

Specimen description:

1. Retroperitoneal fat.
2. Colon mass.
3. Mesenteric node.

Gross description:

1. Fragment of soft, yellow tan adipose tissue which measures 1.7 x 1.3 x 0.3 cm.
2. Segment of intestine which includes a portion of the distal ileum and proximal right colon. The ileum measures 5 cm in length and approximately 2.5 cm in diameter. The segment of colon measures 19 cm in length and up to 10 cm in circumference. The appendix is present. This measures 5 cm in length and 0.6 cm in diameter. There is a portion of skeletal muscle adherent to the serosa, at its attachment, there is a disruption in the wall of the colon (may be related to surgical manipulation). The specimen is opened to reveal an ulcerated, fungating circumferential lesion. This measures 7 x 5 x approximately 2.5 cm in greatest dimension. The central aspect of the lesion is ulcerated and this is adjacent to the attached soft tissue and adherent to muscle. The tumor is 4 cm from the distal margin of resection and approximately 8 cm from the ileocecal valve. The tumor grossly invades through the wall of the intestine. The uninvolved mucosa is tan and shows the usual rugal fold pattern.

Microscopic description:

1. Sections show mature fibroadipose tissue. There is no malignancy identified.
2. Sections of the main tumor mass show moderately differentiated adenocarcinoma. The tumor is comprised of abnormal columnar cells arranged in glands with irregular,

Colorectal and Appendix Case #5

complex patterns. Tumor cells are also present as sheets, invading the wall of the intestine. Cells are columnar with enlarged nuclei bearing prominent nucleoli. Focally, cytoplasmic vacuoles containing mucin are present. There are numerous mitotic figures. The lesion infiltrates the wall of the intestine as cords and sheets of abnormal cells. There is also the formation of glands within pools of mucin in the deeper aspects of the tumor. Necrotic foci are present in the centers of tumor cell clusters. Multiple sections demonstrate the lesion infiltrating through the muscularis propria and involving the pericolic fat. In many of these foci, there is a dense infiltrate of chronic inflammatory cells surrounding the advancing tumor. In section H, which includes the portion of muscle, the tumor is seen to infiltrate between muscle fibers. The lesion does not involve this radial resection margin. One of the radial margins of resection, taken at a different site from the skeletal muscle, is 2 mm away from the tumor. The appendix and the mucosal margins of resection are free of involvement. There are 22 lymph nodes found; metastatic carcinoma is present in 1 of these.

3. Sections of lymph node show sinus histiocytosis. There is no malignancy identified.

Diagnosis:

1. Retroperitoneal fat, biopsy: No malignancy identified.
2. Right colon resection:
 - Invasive moderately differentiated adenocarcinoma. The tumor invades through the wall of the intestine, and focally infiltrates pericolic fat. Radial resection margins are free of involvement by tumor. Mucosal margins of resection are free of involvement by tumor.
 - 22 lymph nodes are present; metastatic adenocarcinoma is found in 1 of these.
3. Mesenteric node: 1 lymph node; no malignancy identified.

AJCC classification: T4 N1 MX Stage IIIB (Dukes C)

Location of tumor: right colon

Margins: Longitudinal proximal, 8 cm; longitudinal distal, 4 cm; completed resected, yes

Microscopic extent of infiltration: Into muscle of abdominal wall

Margin involved: No

Lymphatic invasion: No

Blood vessel invasion: No

CSv2 ANSWER WORKSHEET

FIELD#	FIELD NAME	CODE AND RATIONALE/DOCUMENTATION	
1	Patient Name -		Colorectal Appendix Case #5
CANCER IDENTIFICATION			
2	Primary Site	C18.3	Per op reports #1 and #2 Invasive moderately differentiated adenocarcinoma per path report #2 (most representative specimen)
3	Histology	8140	
4	Behavior	3	
5	Grade	2	
6	Grade system type		
7	Grade system value		
8	Lymph-vascular invasion	0	Not present per path report #2
STAGE OF DISEASE AT DIAGNOSIS			
9	CS Mets at Dx - Bone	0	No metastasis
10	CS Mets at Dx - Lung	0	
11	CS Mets at Dx - Liver	0	
12	CS Mets at DX - Brain	0	
COLLABORATIVE STAGING			
13	CS Tumor Size	070	Per gross description in path report #2
14	CS Extension	650	Per path report #2 microscopic extent of infiltration into abdominal wall muscle
15	CS Tumor Size/Ext Eval	3	Right hemicolectomy
16	CS Lymph Nodes	300	1 positive regional node NOS per path report #2
17	CS Lymph Nodes Eval	3	Right hemicolectomy
18	Regional Nodes Positive	01	
19	Regional Nodes Examined	23	22 regional nodes NOS + 1 mesenteric node NOS
20	CS Mets at Dx	00	Other abdominal organs unremarkable per CT on 3/16
21	CS Mets Eval	0	CT
22	CS Site-Specific Factor 1	010	Elevated pre-op CEA per lab data in consult
23	CS Site-Specific Factor 2	000	No adenopathy per addendum to 3/16 CT of pelvis
24	CS Site-Specific Factor 3	076	Pre-op CEA 7.6 per lab data in consult
25	CS Site-Specific Factor 4	000	No tumor deposits
26	CS Site-Specific Factor 5	998	No pre-op treatment
27	CS Site-Specific Factor 6	020	1 radial margin 2 mm from tumor per micro path #2
28	CS Site-Specific Factor 7	997	Per 3/30 consult MSI test to be done; no results in chart
29	CS Site-Specific Factor 8	999	Perineural invasion not documented in path reports
30	CS Site-Specific Factor 9	998	KRAS test not done
31	CS Site-Specific Factor 10	998	LOH test not done
32	CS Site-Specific Factor 11	988	
33	CS Site-Specific Factor 12	988	
34	CS Site-Specific Factor 13	988	
35	CS Site-Specific Factor 14	988	
36	CS Site-Specific Factor 15	988	
37	CS Site-Specific Factor 16	988	
38	CS Site-Specific Factor 17	988	
39	CS Site-Specific Factor 18	988	
40	CS Site-Specific Factor 19	988	
41	CS Site-Specific Factor 20	988	
42	CS Site-Specific Factor 21	988	
43	CS Site-Specific Factor 22	988	
44	CS Site-Specific Factor 23	988	
45	CS Site-Specific Factor 24	988	

CSv2 ANSWER WORKSHEET

46	CS Site-Specific Factor 25	988	
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Rational for specific data elements:

Prostate Case # 2

DISCHARGE SUMMARY

Date of Admission: 04/26/2010

Date of Discharge: 04/30/2010

Admission Diagnosis: Prostate cancer.

Discharge Diagnosis: Prostate cancer.

Procedure: Robotic-Assisted Laparoscopic Prostatectomy.

Present Medical History: This is a 61 year old male who was found to have a PSA of 4.5 and a free PSA of 12.7 who underwent a transrectal ultrasound biopsy which revealed prostate cancer, 3+3, at the right base with perineural invasion. At the right mid, he had a Gleason 1+2=3 and at the left base, he had a Gleason 2+3=5. The patient was without any incontinence or erectile problems preoperatively. He was consented for the aforementioned procedure and underwent this on 04/26/2010.

Hospital Course: Postoperatively, the patient did well. On postoperative days # 1 and # 2, he did develop a probable urethra-vesicle leak with a large amount of urine being taken out by his pelvic Jackson-Pratt drain. On postoperative day # 3, his Jackson-Pratt drain had been placed to gravity. The drainage had decreased over the 12 hour period prior to discharge. His Jackson-Pratt drain had been placed back on suction with no increased Jackson-Pratt drain output. The patient was tolerating p.o., ambulatory, having normal bowel movements, pain well controlled with p.o. pain medication and all vital signs were stable.

Disposition: He will be discharged to home with follow-up with Dr. XX at the end of next week. He will be discharged to home with the Foley catheter to a leg bag. He has been instructed to call XX Clinic Foundation for any questions or concerns that he may have.

HISTORY AND PHYSICAL

Date: 01/24/2010

Present Medical History: This is a 61-year-old male who was found to have a PSA of 4.5, a free PSA of 12.7%. He had a transrectal ultrasound biopsy which revealed prostate cancer of 3 + 3 at the right base with perineural invasion. At the right mid, he had Gleason 1 + 2 = 3. At the left base, he had a Gleason 2 + 3. He has no voiding symptoms. He has no hesitancy, frequency, nocturia xl. No incontinence. His erections are good, and he is sexually active. He does not use any phosphodiesterase inhibitors.

Past Medical History: Negative.

Review of the systems: Negative for fever, weight loss, or malaise

Physical Exam:

General Appearance: he is in no apparent distress. Abdomen: mildly obese, soft, nontender, nondistended liver and spleen; no hepatosplenomegaly or hernia noted.

Scrotum, epididymis, testicles, urethral meatus, and penis are normal.

Prostate is smooth, symmetrical, nontender and non-nodular; seminal vesicles negative.

Sphincter tone normal. DRE normal.

Neck: no JVD. Respiratory: within normal limits. Cardiovascular: symmetrical femoral pulses.

CSv2 Training Materials

Prostate Case # 2

Lymphatics: no inguinal lymphadenopathy. Skin: No rashes.
Neurologic: Motor, sensory, orientation, mood and affect are all normal.

CONSULTATION REPORT

Date: 01/24/2010

Reason: Second opinion of prostate cancer.

Impression and Plan: Clinically looks like adenocarcinoma of the prostate. I had a long discussion with the patient regarding watchful waiting, hormonal therapy, cryotherapy, external beam radiation, brachytherapy, laparoscopic radical prostatectomy and open prostatotomy. He prefers to go with the robotic prostatectomy, and we will go ahead and get him scheduled.

RADIATION REPORT

Chest PA & Lateral

Date 03/03/2010

Clinical History: Edema

Findings: Heart size and pulmonary vascularity are within normal limits. Thoracic aorta is with calcification in the wall of the aortic arch. No hilar or mediastinal enlargement. The lungs are well expanded and appear free of active disease. No pleural fluid or pneumothorax. Hypertrophic degenerative changes involving the thoracic spine.

Impression: no acute cardiopulmonary disease.

OPERATIVE REPORT

Date: 04/26/2010

Preoperative Diagnosis: Clinical stage T1c adenocarcinoma of the prostate

Postoperative Diagnosis: Clinical stage T1c adenocarcinoma of the prostate

Operation Performed: Robotic-assisted laparoscopic radical prostatectomy

Indications for procedure: This was a 62-year-old male found to have clinically localized adenocarcinoma of the prostate

Procedure in Detail: After informed consent was obtained, the patient was taken to the operating room and placed in the supine position on the operating table. General endotracheal anesthesia was administered. The patient's legs were then placed in spreader bars and the table was properly positioned for robot prostatectomy. By doing so the patient was placed in steep Trendelenburg. The abdomen, penis and scrotum were then prepped and draped in sterile fashion. Foley catheter

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and orogastric tubes were placed. The Veress needle access was obtained to the peritoneal cavity and once proper placement was confirmed with the drop test, the abdomen was insufflated to 15 mmHg with CO₂ gas. Once adequate pneumoperitoneum was obtained, a 10-2 trocar was placed through the incision just above the umbilicus. Additional trocars for the robot and instruments were placed lateral to the rectus muscle below the umbilicus in the left lower quadrant, and a 10-12 trocar was also placed in the right lower quadrant for assistant retraction as well as a 5 mm trocar in the right upper quadrant. These trocars were placed under direct vision using the Da Vinci camera. The Da Vinci robot was then docked to the trocars and secured to the patient. We then began dissection of the seminal vesicles and vas deferens. The vas deferens was transected and a piece of it was used as a bolster for the anastomosis. Seminal vesicles were also dissected. We then turned our attention to the tissue lateral to the medial umbilical ligaments on both sides. This allowed us to completely mobilize the bladder and drop it off the lower anterior abdominal wall. We then dissected the pubic bone to expose the anterior surface of the prostate and the endopelvic fascia. The retropubic fat was stripped off the prostate down to the bladder neck. We incised the endopelvic fascia with electrocautery and dissected more laterally as well as anteriorly to expose the lateral edges of the prostate. We took down the puboprostatic ligaments to expose the dorsal venous complex. The dorsal venous complex was then controlled with an Endo-GIA stapling device. Attention was then turned to the bladder neck. The bladder neck was then incised with the electrocautery at the base of the prostate. This was performed on both sides leaving the midline intact. We then dissected down to the bladder neck and used blunt dissection and electrocautery to preserve the bladder neck tissue. The proximal urethra was then divided with electrocautery and the posterior urethra was divided as well. We then dissected the posterior surface of the bladder off the base of the prostate. Once this was accomplished, Denonvilliers fascia was exposed. We then brought up the vas deferens and the seminal vesicles into the field. We elevated the seminal vesicles with the 4th arm of the robot in order to gain exposure to the pedicle dissection. We incised the posterior layer of Denonvilliers fascia to sweep the rectum down off the posterior surface of the prostate. This demonstrated the pedicles nicely. We then took the lateral pedicles of the prostate using a combination of bipolar cautery and monopolar cautery. Both neurovascular bundles were preserved on both sides. We then incised the lateral pelvic fascia to sweep the neurovascular bundles off the prostate and continued dissection inferiorly toward the apex of the prostate on both sides. Again, we were able to preserve both neurovascular bundles. Once this was accomplished, the prostate was pulled posteriorly towards the head of the patient to expose the dorsal venous complex and dorsal urethra. We then transected the urethra using electrocautery. We also were able to sweep the neurovascular bundles off of the apex of the prostate and lateral surface of the urethra to ensure preservation of the structures. The posterior urethra was then divided with electrocautery. After dividing the posterior urethra, we divided the rectourethralis muscle and then completely mobilized the prostate off the rectum to create the prostate. The pelvis was irrigated with saline and a JP drain was placed in the right lower quadrant, thus the urethral anastomosis was then performed using double armed suture of 2-0 Vicryl and 2-0 Monocryl of this sutured bolster of our vas bolster for initial suture. Once the anastomosis was completed, the Foley catheter was placed per urethra without difficulty. The bladder was irrigated. There was no evidence of leakage. The bladder irrigated well. We then placed the prostate into an entrapment sac. The robot was undocked and the trocars were removed under direct vision. We then removed the prostate back staying in the midline trocar for a short distance. There was excellent hemostasis prior to removing the specimen. We then closed the extraction incision with interrupted sutures of 0 Vicryl. All wounds were irrigated and infiltrated with 0.25% Marcaine plain. The trocar sites were closed with Dermabond in the skin and the extraction site was closed with 4-0 Monocryl subcuticular suture. Steri-Strips were applied to the wound as well. The patient tolerated the procedure well.

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There were no intraoperative complications. He was reversed from anesthesia and taken to recovery room in good condition.

PATHOLOGY REPORT

Date: 04/26/2010

Specimen: Prostate and Vas Deferens.

Gross and Microscopic Diagnosis: Radical Prostatectomy Specimen: Large total volume of adenocarcinoma, total Gleason score 6, with involvement of the apical margin, with no involvement of the right seminal vesicle identified.

Gross: Received in formalin is a 35 gm, 4 x 3 x 3 cm prostate with attached vas and attached right seminal vesicle. The right seminal vesicle measures 3 cm in length and 1 cm in diameter. The right vas measures 3 cm in length and 0.5 cm in diameter. The left vas measures 4 cm in length and 0.5 cm in diameter. The prostate parenchyma has multiple ill-defined, firm, white to pink areas. The remainder parenchyma is spongy, filled with milky material. Margins are inked with black.

Microscopic:

Although there are large areas of prostate without neoplasia, there is a large total volume of carcinoma present. Carcinoma involves all regions of the prostate, although it is not identified in the right seminal vesicle. The carcinoma consists of glands, some of which have a smaller-than-usual caliber, but with considerable variation in glandular size. These glands erratically infiltrate without a well defined periphery (Gleason grade 3). No extraprostatic extension is identified.

Stage: pT2c pNx pMx.

Addendum issued on 05/05/2010: This case has been reviewed again. Carcinoma extends to the margin in several foci at the apex. At the apex there are benign glands extending into skeletal muscle. On the other hand, the carcinoma extends deeper into the skeletal muscle than the benign glands. The carcinoma also extends to some modest sized vascular and neural structures. It is my interpretation that the prudent case is to consider the carcinoma to have extracapsular extension into the apex.

This interpretation leads to the pathologic stage of pT3a pNx pMx.

CSv2 WORKSHEET

FIELD#	FIELD NAME	CODE AND RATIONALE/DOCUMENTATION
1	Patient Name - Prostate #2	
CANCER IDENTIFICATION		
2	Primary Site	C619
3	Histology	8140
4	Behavior	3
5	Grade	2
6	Grade system type	
7	Grade value	
8	Lymph-vascular invasion	1
STAGE OF DISEASE AT DIAGNOSIS		
9	CS Mets at Dx - Bone	0
10	CS Mets at Dx - Lung	0
11	CS Mets at Dx - Liver	0
12	CS Mets at DX - Brain	0
COLLABORATIVE STAGING		
13	CS Tumor Size	999
14	CS Extension	150
15	CS Tumor Size/Ext Eval	4
16	CS Lymph Nodes	000
17	CS Lymph Nodes Eval	0
18	Regional Nodes Positive	98
19	Regional Nodes Examined	00
20	CS Mets at Dx	00
21	CS Mets Eval	0
22	CS Site-Specific Factor 1	045
23	CS Site-Specific Factor 2	010
24	CS Site-Specific Factor 3	480
25	CS Site-Specific Factor 4	
26	CS Site-Specific Factor 5	988
27	CS Site-Specific Factor 6	988
28	CS Site-Specific Factor 7	033
29	CS Site-Specific Factor 8	006
30	CS Site-Specific Factor 9	033
31	CS Site-Specific Factor 10	006
32	CS Site-Specific Factor 11	999
33	CS Site-Specific Factor 12	991
34	CS Site-Specific Factor 13	991
35	CS Site-Specific Factor 14	020
36	CS Site-Specific Factor 15	030
37	CS Site-Specific Factor 16	988
38	CS Site-Specific Factor 17	988
39	CS Site-Specific Factor 18	988
40	CS Site-Specific Factor 19	988
41	CS Site-Specific Factor 20	988
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45	CS Site-Specific Factor 24	988
46	CS Site-Specific Factor 25	988