## Colon Case 1 SURGICAL PATHOLOGY REPORT #1

Surgical Pathology Report November 16, 2007

#### Gross:

The specimen is received in formalin. The container is labeled "colon mass biopsy." It consists of three gray-tan, 0.2 cm mucosal fragments which are submitted in one cassette.

#### Microscopic:

The colonic biopsies have an ulcerated neoplasm that is composed of moderately large cells with slightly enlarged nuclei. The latter exhibits moderate hyperchromasia and pleomorphism. Some of the cells have a signet ring configuration with cytoplasmic mucin. The neoplasm is poorly differentiated without well-developed gland formation. Foci of abundant extracellular mucin are also seen.

Final Diagnosis: poorly differentiated adenocarcinoma

## Colon Case 1 SURGICAL PATHOLOGY REPORT #2

Surgical Pathology Report November 24, 2007

Final Diagnosis: Right colon: Invasive adenocarcinoma

- A) Histologic type intestinal with focal abundant mucin production
- B) Tumor size 3.3 cm in greatest dimension
- C) Depth of invasion focally through muscularis propria into pericolonic adventitial tissue
- D) Gross tumor perforation absent
- E) Extension to peritoneal surface absent
- F) Nuclear grade 3/4
- G) Mitotic rate 26 per 10 hpf (400x)
- H) Necrosis focally present within individual tumor nests
- I) Histologic grade- 2/3 (moderately differentiated)
- J) Resection margins free of involvement
- K) Vascular invasion absent
- L) Perineural invasion absent.
- M) Tumor growth margin pushing
- N) Lymph nodes eleven nodes negative for metastasis (0/11)
- O) Non-nodal peri-intestinal tumor implants absent
- P) AJCC pathologic stage T3/N0/MX/G3

## Colon Case 2 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report February 2, 2007

#### Gross Description:

The specimen is labeled "right colon" and consists of a segment of right colon 30 cm in length x 4.0 cm in average diameter with attached 6.0 cm in length x 2.0 cm in diameter stump of terminal ileum and 7.0 cm length appendix. The colonic mucosa shows two hemorrhagic, villous polyps. The first arises in the cecum and measures  $4.2 \times 2.0 \times 2.0$  cm. It puckers and dimples the overlying serosa and grossly involves the entire thickness of the bowel wall. The second polyp arises 10 cm from the distal resection margin and measures  $3.7 \times 2.7 \times 2.0$  cm. On cut section the distal polyp does not grossly appear to involve the entire thickness of the bowel wall. The remaining mucosa is unremarkable.

Specimen Type: Right hemicolectomy

Length: 30 cm Tumor Site: Cecum Tumor Size: 4.2 cm

Tumor Configuration: Exophytic (polypoid)

Histologic Type: Adenocarcinoma

Histologic Grade: G2: Moderately differentiated (50-95% gland forming)

Extent of Invasion: T2: Tumor invades muscularis propria

Margins: Uninvolved

Nodes Examined/Involved: 20/00

Tumor Site: Transverse colon

Tumor Size: 3.7 cm

Tumor Configuration: Exophytic (polypoid)

Histologic Type: Adenocarcinoma

Histologic Grade: G2: moderately differentiated (50-95% gland forming)

Extent of Invasion: T2: Tumor invades muscularis propria

Margins: Uninvolved

Nodes Examined/Involved: 20/00

#### Final Diagnosis:

Right colon, hemicolectomy: Moderately differentiated adenocarcinoma of cecum, invading into but not through muscularis propria (T2); moderately differentiated adenocarcinoma of transverse colon, invasive into but not through muscularis propria (T2); twenty benign lymph nodes; mucocele of appendix.

# Colon Case 3 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report March 15, 2007

Final Diagnosis: Sigmoid colon – adenocarcinoma of the colon with the following features:

- 1. Differentiation and type: well to moderately differentiated adenocarcinoma with focal mucinous adenocarcinoma differentiation
- 2. Size of invasive component: 3.2 x 3.0 x 1.0 cm.
- 3. Depth of tumor infiltration: extends into mesenteric adipose tissue and into subserosa.
- 4. Tumor perforation: absent
- 5. Lymph nodes: Thirteen lymph nodes identified, with metastatic carcinoma involving one of thirteen lymph nodes.
- 6. Margins: Uninvolved by invasive carcinoma
- 7. Pre-existing polyps at carcinoma site: Changes consistent with pre-existing polyps
- 8. Lymphatic (small vessel) invasion and venous (large vessel) invasion: Not identified
- 9. Additional pathologic findings: Diverticulosis
- 10. Pathologic staging: T3N1MX

## Colon Case 4 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report August 14, 2007

#### Final Diagnosis:

- A Colon, colectomy:
  - 1 Splenic flexure tumor mucinous carcinoma, 12.5 cm in greatest dimension.
    - i) Tumor extends through full thickness of muscularis propria into subserosal soft tissue.
  - 2 Sigmoid tumor adenocarcinoma with mucinous features, moderately differentiated, 6.8 cm in greatest dimension.
    - i) This tumor also extends through full thickness of muscularis propria into subserosal soft tissue.
  - 3 Background of adenomatous polyposis (innumerable adenomas) throughout entire resection specimen with some of the representative larger adenomas sampled containing areas of high grade dysplasia.
  - 4 Three (3) of twenty-seven (27) lymph nodes examined positive for metastatic carcinoma.
  - 5 Largest metastasis is 1.8 cm in greatest dimension and there is extranodal extension.
- B Lymph node, ileocolic, regional resection: three (3) lymph nodes negative for malignancy (0/3).
- C Colon, rectosigmoid junction, stump polyp, biopsy:
  - 1 Tubulovillous adenoma, 0.9 cm in greatest dimension.
  - 2 Negative for high grade dysplasia and malignancy.
- D Colon, anastomosis donut, proximal, biopsy:
  - 1 Small intestinal-type mucosa showing no significant histologic abnormality.
  - 2 Negative for malignancy.
- E Colon, anastomosis donut, distal, biopsy:
  - 1 Unremarkable colonic mucosa.
  - 2 Negative for malignancy.

# Colon Case 5 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report January 2, 2007

## Final diagnosis

- A. Mass at 86 cm, biopsy: colonic mucosa with adenocarcinoma
- B. Mass at 50 cm, biopsy: invasive moderately differentiated adenocarcinoma

Comment: The mass at 86 cm contains adenocarcinoma. However, there is no invasive adenocarcinoma in the biopsy material. This may be a result of sampling. The mass biopsy at 50 cm shows invasive adenocarcinoma.

# Colon Case 6 SURGICAL PATHOLOGY REPORT #1

Surgical Pathology Report July 21, 2007

#### Specimen:

- A. Colon biopsy, ascending mass
- B. Colon biopsy, sigmoid polyp

#### Final Diagnosis:

- A. Ascending colon, biopsy: Villous adenoma with high-grade dysplasia, cannot exclude carcinoma.
- B. Sigmoid colon, biopsy: Adenomatous polyp with focal adenocarcinoma and high-grade dysplasia.

# Colon Case 6 SURGICAL PATHOLOGY REPORT #2

Surgical Pathology Report August 1, 2007

## Specimen:

- A. Colon resection, right (ascending)
- B. Colon, sigmoid

## Final Diagnosis:

- A. Right hemicolectomy area of previous biopsy site shows moderately differentiated adenocarcinoma, cecum, with one of ten lymph nodes positive with metastatic tumor.
- B. Segment of sigmoid colon with focal ulceration at previous biopsy site of adenomatous polyp showing focal adenocarcinoma with no residual tumor or dysplastic changes identified on current resection.

# Colon Case 7 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report June 4, 2007

#### Specimen:

Segmental colectomy including terminal ileum, cecum, right colon

## Final Diagnosis:

- A. Terminal ileum, cecum, and right colon, segmental colectomy: Invasive, poorly differentiated adenocarcinoma, signet ring and mucinous types, involving the cecum, ileocecal valve, and focally extending into the ileum with the following features:
- B. Measures up to 6.0 cm.
- C. Extends through the muscularis propria and extensively involves the subserosal soft tissues
- D. Angiolymphatic invasion is present
- E. The proximal and distal margins of resections are free of malignancy.
- F. separate focus of metastatic adenocarcinoma involving colonic wall 20.0 cm downstream from primary tumor
- G. Metastatic adenocarcinoma involves at least four out of forty-one lymph nodes and shows focal matting and
- H. Perinodal soft tissue involvement. Extensive chronic and active enteritis with ulceration and marked glandular atypia (please see comment)

COMMENT: The chronic and active enteritis is present solely within sections of the small bowel and is not present within random sections of the colon. I do not see granulomas in these sections. The marked glandular atypia present within the sections of enteritis are difficult to evaluate due to the surrounding inflammation, but most likely represent reactive atypia. The significance of the enteritis is unclear but could represent inflammatory bowel disease (Crohn's enteritis). Clinical correlation and follow-up is suggested if warranted.

# Colon Case 8 SURGICAL PATHOLOGY REPORT

Pathology Report September 6, 2007

#### Specimen:

A. Right hemicolectomy with en bloc resection of right lateral abdominal wall shows two distinct tumor masses in ascending colon.

#### **Tumor Configuration:**

- A. Exophytic (polypoid)-adenocarcinoma
- B. Plaque-like-carcinoid

#### Tumor Size:

- A. Adenocarcinoma: Greatest dimension: 9.3 cm; Additional dimensions: 6.8 x 4.9 cm.
- B. Carcinoid: 1.4x 0.7 x 0.4 cm

## Histologic Type:

- A. Adenocarcinoma
- B. Neuroendocrine and carcinoid tumor

## Histologic Grade:

A. Adenocarcinoma: High-grade (poorly differentiated to undifferentiated)

## Pathologic Staging (pTNM):

#### Primary Tumor (pT)

- A. Adenocarcinoma: pT4a: Tumor directly invades other organs or structures (ileum)
- B. Carcinoid: pT3: Tumor invades through the muscularis propria into the subserosa

Regional Lymph Nodes (pN): pN0: No regional lymph node metastasis

Specify: Number examined: 24 Number involved: 0

Distant Metastasis (pM) pMX: Cannot be assessed

Margins: Uninvolved by invasive carcinoma

## Final Diagnosis:

- A. Right colon, ileocolectomy: Invasive moderately differentiated adenocarcinoma
- B. Ascending colon, segmental resection: neuroendocrine carcinoma and carcinoid tumor

# Colon Case 9 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report May 10, 2007

Clinical History: Polyp

Specimen: Colon biopsies

#### Gross Description:

The specimen, colon biopsies, consists of multiple tan polypoid tissue fragments ranging from less than 0.1 cm up to  $2 \times 1.8 \times 1.2$  cm in greatest dimensions. The smaller fragments of tissue are submitted entirely in a single cassette. The surgical margin from the larger fragment of tissue is inked blue.

## Microscopic Description:

The polyp shows adenocarcinoma as well as areas of villous adenoma with high grade dysplasia. The malignancy infiltrates into the stroma at the head of the polyp. The base of the polyp stalk can be identified and appears free of tumor. It's also free of dysplastic change. There is no lymph vascular invasion seen. This should be considered a T1 lesion in the TNM staging classification.

## Final Diagnosis:

Colon polyp, region not given: Adenocarcinoma arising in pedunculated villous adenoma, tumor invades into the submucosa within the head of the polyp, base of the polyp stalk is identified and free of tumor

# Colon Case 10 SURGICAL PATHOLOGY REPORT

Surgical Pathology Report March 23, 2007

- A. Colon, polyp, ascending colon polyp
- B. Colon, mass, proximal transverse colon
- C. Colon, polyp, transverse colon polyp

#### Gross:

- A. Received in formalin labeled "ascending colon" is one polypoid portion of tissue, 2.2 cm in greatest dimension. The tissue is inked, multiply sectioned and entirely submitted in cassette A.
- B. Received in formalin labeled "proximal transverse" are three fragmented portions of tissue, 0.2-0.7 cm in greatest dimension. The largest portion is inked and bisected. The specimen is submitted in cassette B.
- C. Received in formalin labeled "C" are more than 10 fragmented polypoid portions of tissue, 0.2-0.8 cm in greatest dimension.

#### Final Diagnosis:

- A. Ascending colon, biopsy: adenocarcinoma with mucinous component arising in adenomatous polyp. Tumor invades muscularis mucosa and is present at cauterized polyp margin.
- B. Proximal transverse colon, biopsy of mass: Invasive adenocarcinoma
- C. Transverse colon, biopsy: tubulovillous adenoma with carcinoma in situ confined to the head of the polyp