AMSER Rad Path Case of the Month: December 2018

Rectosigmoid Carcinoma

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Patient Presentation

62 year old man with a + FOBT on a Cologard test. Last colonoscopy over 10 years ago. Denied abdominal pain, decreased appetite, change in bowel habits, weight loss, frank rectal bleeding, and melena.

Past Medical History: A fib, COPD, CAD, HTN, HLD, obesity (BMI 31.6), alcohol use disorder, depression, chronic hip pain

Surgical History: cholecystectomy, inguinal hernia repair (left)

Family History: + myocardial infarction (mother), + DM, HTN, Dementia (father)

Social History: + EtOH dependence, in remission (hx of delirium tremens); + current every day smoker (40 pk yr history)

- Denies illicits
- Married; lives at home with wife; no children; unemployed (disability)

Medications: Albuterol, Fluticasone, Pravastatin, Warfarin, Digoxin, Diltiazem, Venlafaxine

Physical Exam & Pertinent Labs

General: obese male in no acute distress; oriented to person, place, time and situation
CV: irregular rate and rhythm with normal S1 and S2, no murmur, click, rub or gallop appreciated
Pulm: equal breath sounds bilaterally, no wheezes appreciated
Abdominal: soft, no distension or mass appreciated, non tender to palpation with no rebound or guarding
Psychiatric: normal mood and affect
Pulses: +2 and symmetric
Skin: warm and dry, no rash noted, no erythema

TEST	RESULT (6/25)	RESULT (7/30)	NORMAL RANGE
CEA	5.8 (H)	7 (H)	0.0-3.0
Hemoglobin	13.5 (L)	13.1 (L)	14.0-17.4
Hematocrit	39.9 (L)	39.4 (L)	41.5-50.4

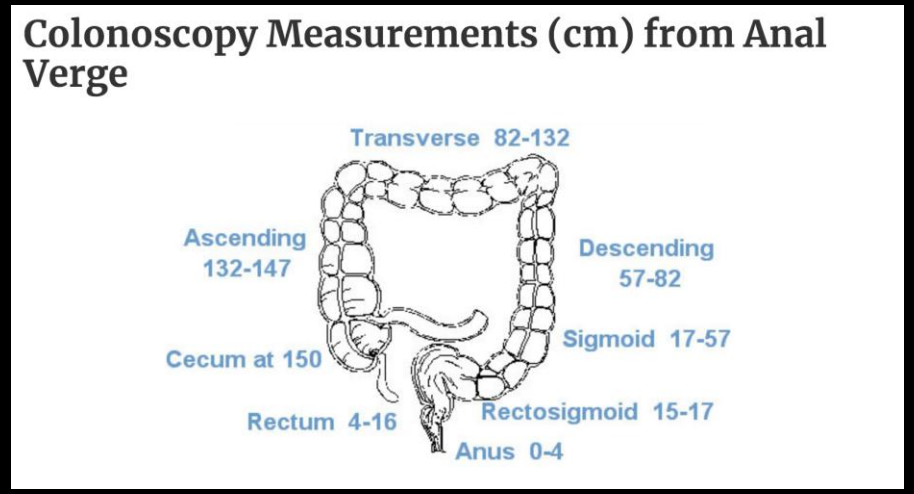
Colonoscopy & Biopsy

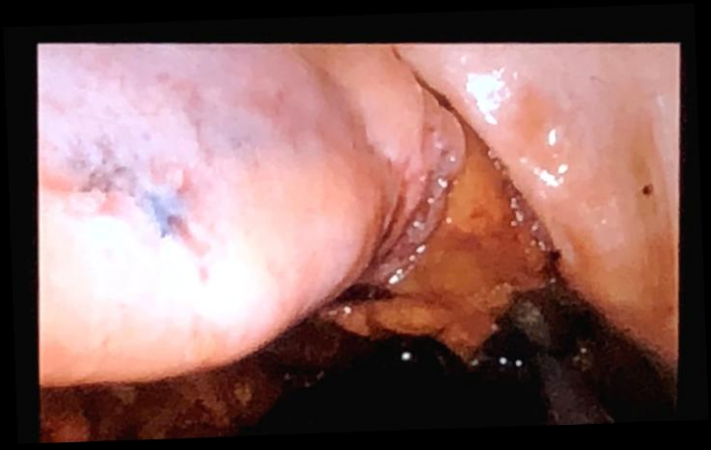
A colonoscopy was performed and a mass was discovered 15 cm from the anal verge.

- The pathology showed “superficial fragments of tubulovillous adenoma with high grade dysplasia.”
- A CT scan was performed for staging purposes.

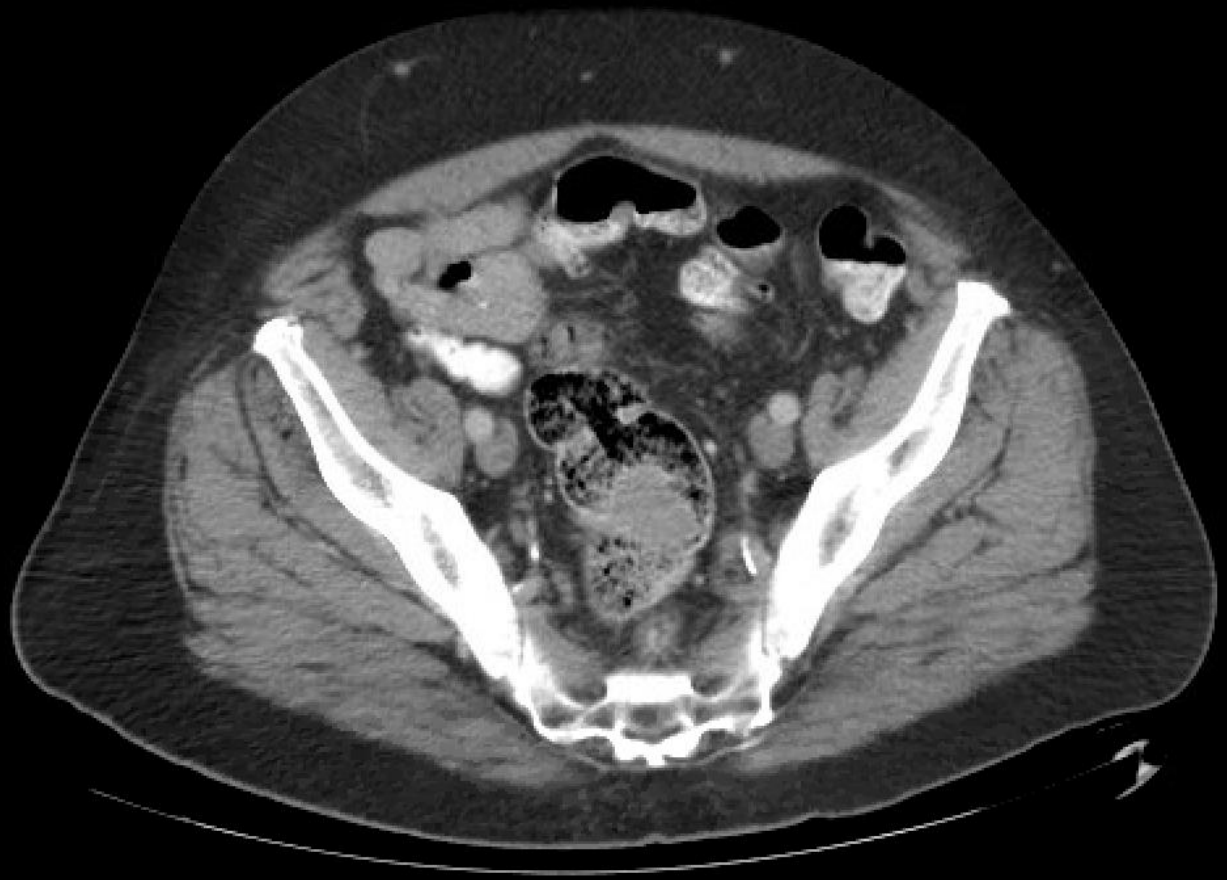
Colonoscopy Measurements & Tattooing

- The location of pathology on a colonoscopy is measured from the anal verge (in this case – 15 cm from anal verge).
- Tattooing is the method of injecting dye into a lesion prior to surgery to allow for localization of the lesion.
  - The dye used in this patient's surgery was India Ink. Other dyes include methylene blue and indocyanine green.





CT Chest Abdomen Pelvis with Contrast



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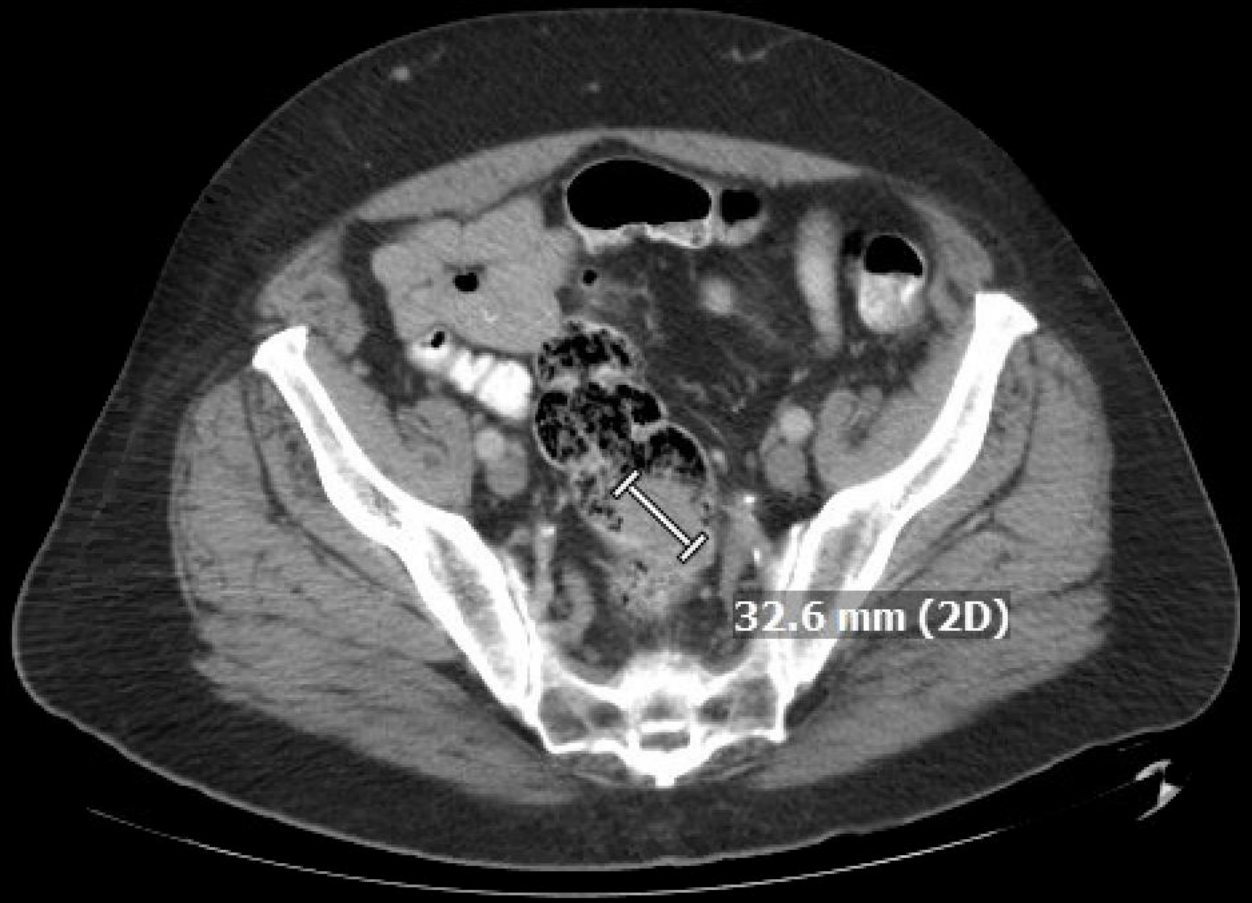

“Stool and gas are seen throughout the colon. Multiple colonic diverticula are noted without evidence of diverticulitis. There is localized soft tissue attenuation in the region of the rectosigmoid, consistent with a polypoid mass measuring approximately 3.3 cm in diameter."

“No definitive evidence of intrathoracic or intra-abdominal metastatic disease.”

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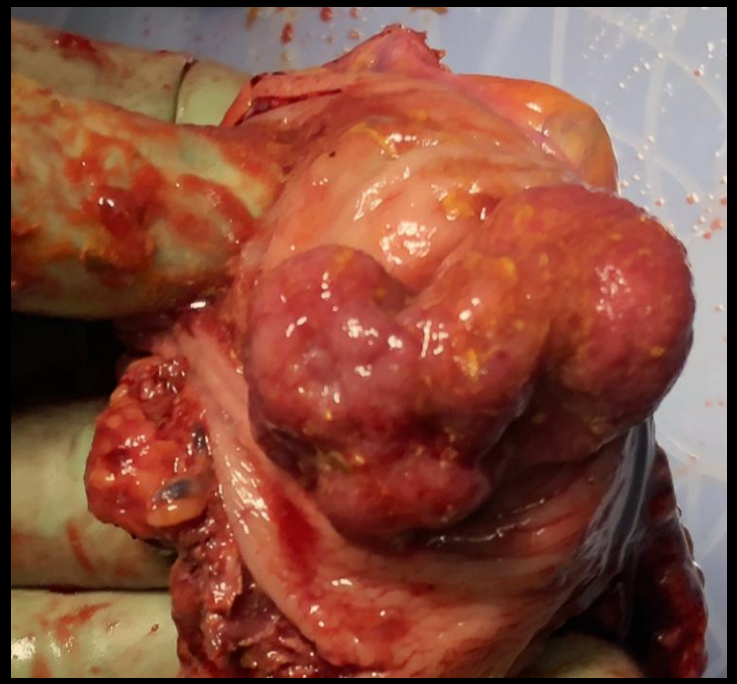
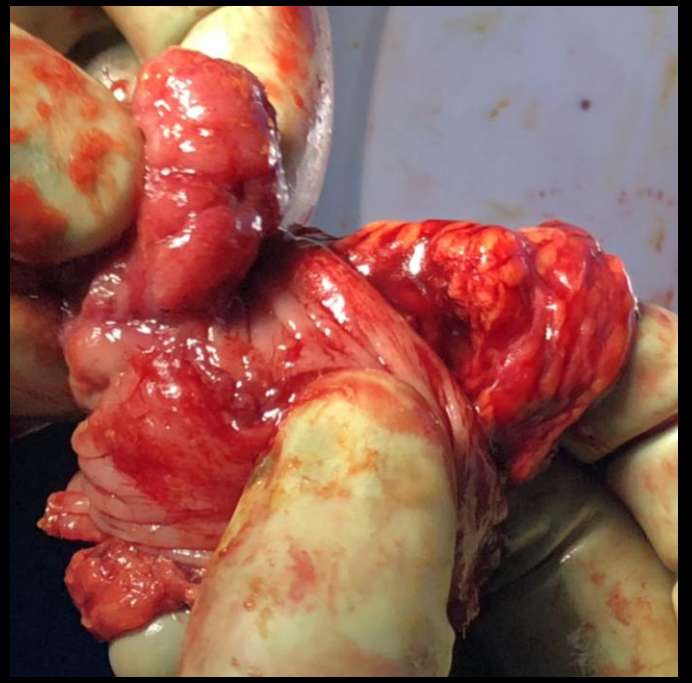
Differential Diagnosis Based on Imaging

- Adenocarcinoma
- Adenoma
- Metastasis/Lymphoma
- Stool ball

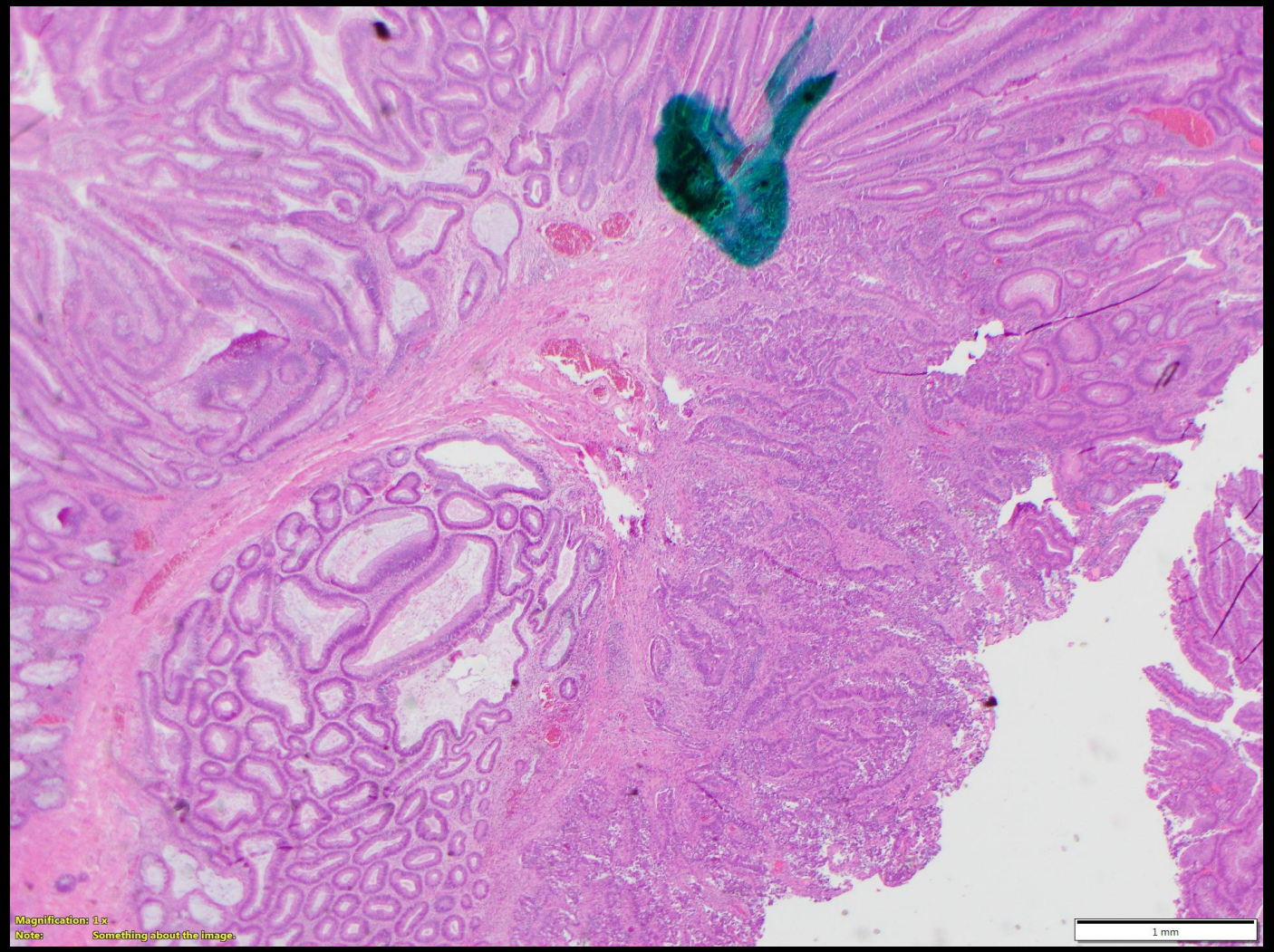
Gross Specimen

The patient underwent a robotic assisted laparoscopic sigmoid colectomy with lower anterior resection and diverting loop ileostomy. The specimen is a polypoid mass that extends into the lumen.





Histology (H&E)



Well-differentiated adenocarcinoma, arising in a tubulovillous adenoma with high-grade dysplasia. Margins are negative.

Invasive, in the case of colon cancer, means the cells have invaded through the muscularis mucosa.

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Final Dx:

Colonic Adenocarcinoma

Case Discussion

Colorectal cancer is the 3rd most common cancer in adults (excluding skin cancer) and the 3rd most common cause of cancer-related death (behind breast/prostate and lung cancer).

- Most commonly arises in the rectosigmoid colon (60% of cases)
- Risk factors include:
  - Advanced age
  - Alcohol use, Smoking
  - Family history
  - Obesity

Case Discussion

- Adenomatous polyps are due to neoplastic proliferation of glands and have malignant potential (pre-malignant). The three subtypes of adenomatous polyps are:
  - Tubular (polypoid)
  - Villous – most worrisome
  - Tubulovillous
- The larger the polyp, the more likely it is malignant.
  - >2 cm polyp associated with 25-50% risk of cancer

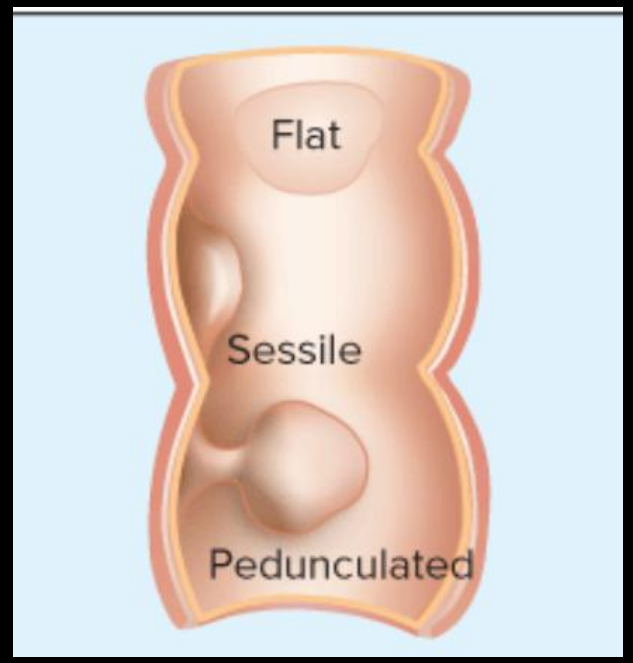

Image from emedicalhealth.net

Radiographic Characteristics of Colonic Polyps

Benign Polyps:

- Smooth surface
- Long stalk (pedunculated)
- Normal mucosa
- Small diameter
- Stable in growth
- Spherical shape

Malignant Polyps:

- Irregular shape
- Sessile (flat)
- Puckered mucosa
- Large diameter
- Sudden growth
- Base broader than height

Screening Recommendations

United States Preventive Services Task Force (USPSTF) A grade recommendation:

- Screen for colorectal cancer starting at age 50 years with
  - Screening colonoscopy q10y
  - OR Sigmoidoscopy q5y + high-sensitivity fecal occult blood test (FOBT)
  - OR Annual high-sensitivity FOBT

Carcinoembryonic Antigen (CEA) is a serum tumor marker useful for monitoring recurrence but is not for screening purposes.

- High CEA suggests metastatic disease but is non-specific:
  - CEA may be elevated in many chronic inflammatory diseases including COPD, gastritis, and diverticulitis. CEA is also elevated in cigarette smokers.

References

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