Colon and Rectal Cancer

Screening and Management

OSPA CME Update November 3, 2012

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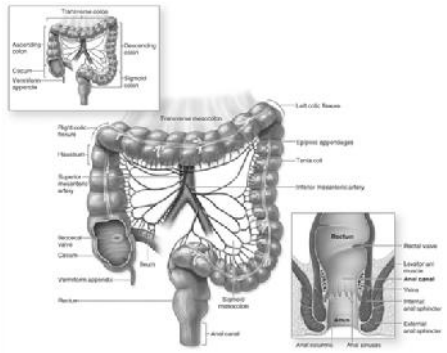
Objectives

- Identify who is at risk for developing colon and rectal cancer.
- Understand Screening Guidelines for average and high risk patients.
- Recognize standard treatment and prognosis for colon and rectal cancer.

Colon and Rectal Cancer

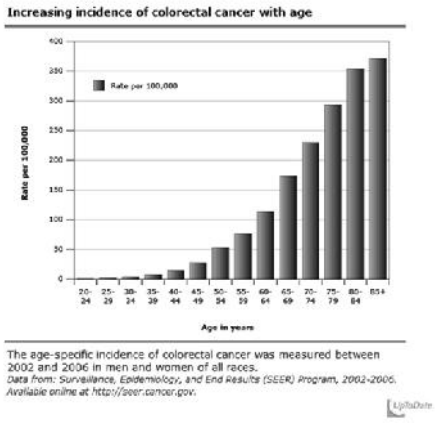
A common disease in older patients

This is your colon

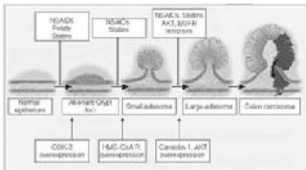


Cancer in the United States
2011

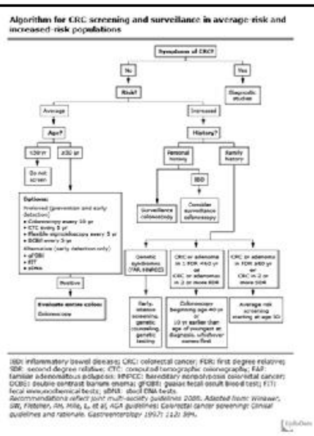
	Men		Women
	New Cases/ Deaths		New Cases/Deaths
Prostate	240,000/34,000	Breast	230,000/40,000
Lung	115,000/85,000	Lung	106,000/71,000
Colon/Rectal	70,000/25,000	Colon/Rectal	70,000/25,000



Polyp to Cancer



Screening and the prevention of colon and rectal cancer



Screening Guidelines

Average Risk for Colon and Rectal Cancer

- Who is in the Average Risk Group?
  - No Family History of colon or rectal cancer
  - No family history of advanced colon or rectal polyps
  - No recent GI complaints (change in bowel habits, rectal bleeding, anemia, unexplained weight loss)
- Single First Degree Relative with Colon or Rectal Cancer after age 60
- Average Risk Patients begin screening at age 50 (45 for African Americans)

Screening Guidelines

Increased Risk of Colon and Rectal Cancer

- Who is in the Increased Risk Group?
  - Single First Degree Relative with Colon or Rectal Cancer (or advanced Adenoma) before age 60
  - Two or more Second Degree Relatives with Colon or Rectal Cancer (or advanced Adenoma)
- Screening should begin at age 40 or ten years before the onset of the cancer.
- Increased Risk patients are screened every 5 years.

Screening Guidelines

Special groups

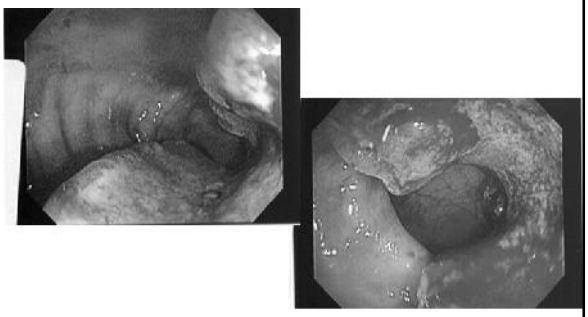
- Inflammatory Bowel Disease
- Familial Adenomatous Polyposis
- Hereditary Non-Polyposis Colon Cancer

- Refer to GI Medicine.

It's a trap!

- 43yo WF with red blood streaking her stools over the last year.
- No change in bowel habits
- No weight loss or anorexia
- No family history of colon or rectal cancer
- DNA analysis of tumor is negative for Lynch Syndrome

Stage I Cancer of the Rectosigmoid Junction



Special Groups

Red Flags!

- Colon Cancer does occur before age 60 even in those patients who have no family history of Colon or Rectal cancer
- Patients over the age of 40 with potential signs of bleeding or GI complaints should be evaluated.
  - Rectal bleeding
  - Change in bowel habits
  - Unexplained loss of weight
  - Anemia

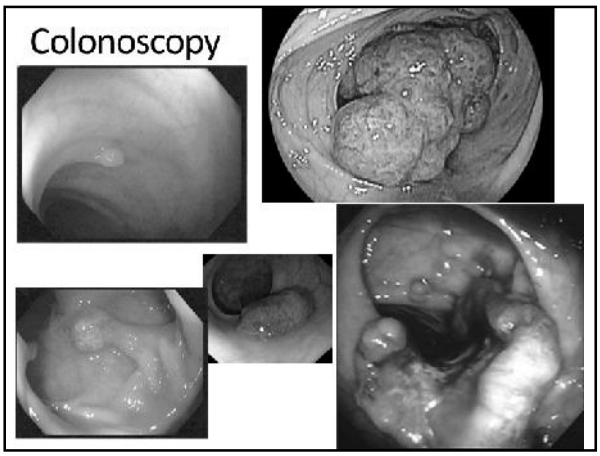
How should you Screen?

Cancer Screening vs. Prevention

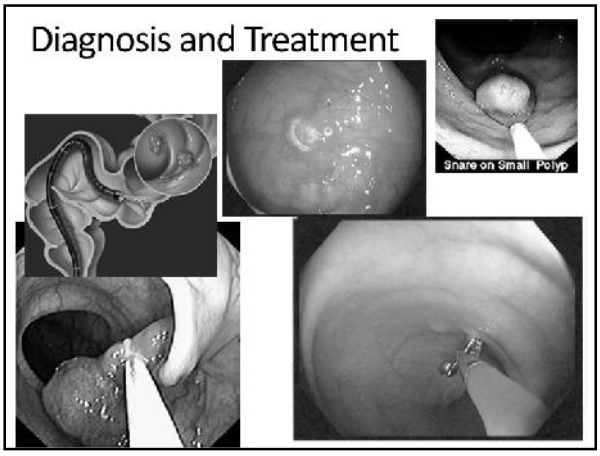
- FOBT (Guaiac, DNA, FIT)
- Flexible Sigmoidoscopy
- Colonoscopy

- CT Colonography (Virtual Colonoscopy)
- Barium Enema

Colonoscopy



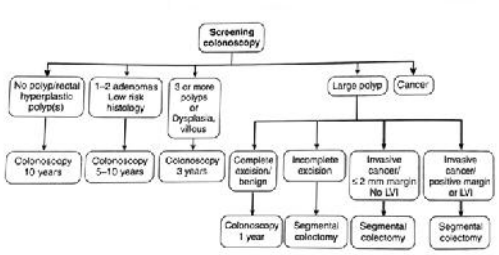
Diagnosis and Treatment



Colonoscopy
Quality Indicators

- Successful Bowel Preparation
- Complete visualization of the bowel including the base of the cecum
  - Withdrawal time of 6 minutes
- Low rate of complication
  - Bleeding
  - Perforation
- Consistent identification and removal of polyps
  - 15-25%

Screening Results and follow up



Algorithm for outcomes with screening colonscopy LVI, Lymphovascular invasion.

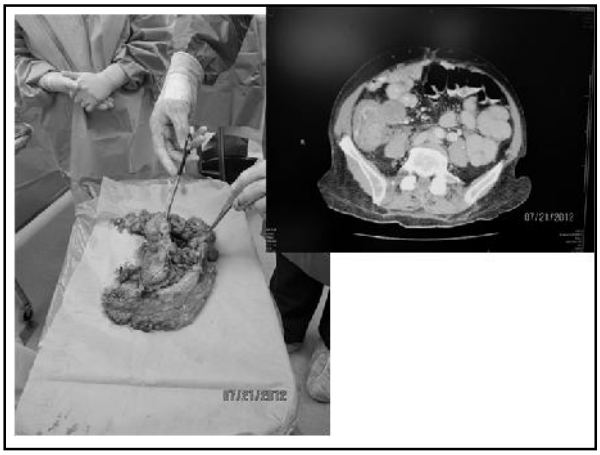
Colon Cancer

Case History

- 61yo WM, uninsured, with intermittent anemia and transfusions over the previous year.
- No gross blood with bowel movements
- Past history of colon surgery in 1993 for an indeterminate mass
- Normal EGD
- Colonoscopy shows two areas of cancer in the ascending colon

Case History

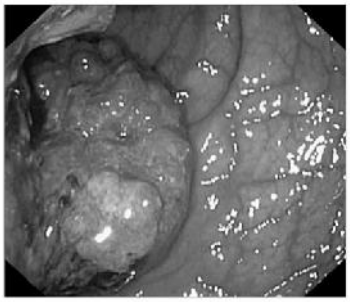
- CEA 4.5 (non-smoker)
- Hct 14.1 (yes, Hct!)
- LFTs normal
- Colonoscopy showing invasive cancer
- CXR Normal
- CT Scan showing large right colon mass
- Final Pathology showing two primary cancers
- Cecal Cancer T3N1 with 1/16 nodes involved
- Ascending Colon Cancer T1N1



Evaluation and management

- CBC, CMP,CEA
- CXR
- CT scan of the abdomen and pelvis
- Surgery: Laparotomy vs. Laparoscopy
- Chemotherapy

Rectal Cancer

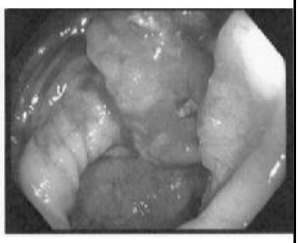


Case History

- 49yo WF with an increased frequency of stools and intermittent bright red blood per rectum
- No family history of colon or rectal cancer
- No recent weight loss
- No anemia

Case History

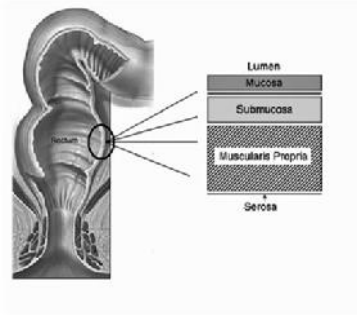
- Digital examination did not identify a mass
- Colonoscopy shows a mid-rectal tumor (10cm from the anal sphincter)
- Biopsies show invasive carcinoma



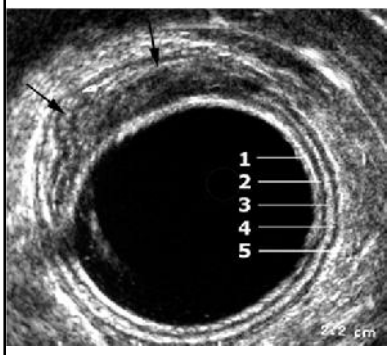
Case History

- CBC and CMP normal
- CEA 1.2
- CXR normal
- CT scan of the abdomen and Pelvis normal
- Endorectal Ultrasound suggests a T3 lesion
- No lymph nodes seen.
  Clinical Stage II
- DNA evaluation of tumor is negative for Lynch Syndrome

Evaluation of Rectal Cancer



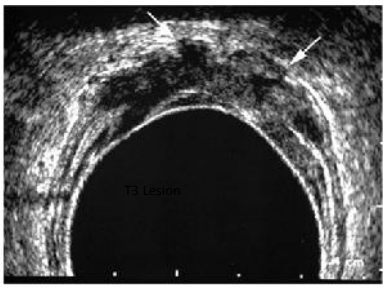
Endorectal Ultrasound



White
1. Balloon interface with the mucosa
3. Submucosa
5. Perirectal Fat

Black
2. Muscularis mucosa
4. Muscularis propria

Case History



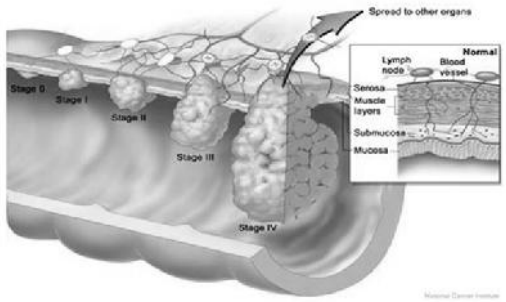
Case History

- Radiation Therapy
- 28 treatments over 40 calendar days
- Treatment complete on 7/18/2011
- Concurrent Chemotherapy with 5-FU continuous infusion
- Surgery 9/27/2011
- Laparoscopic assisted low anterior resection with loop ileostomy
- No residual cancer in specimen
- Closure of ileostomy 11/8/2011

Evaluation and management

- Labs, CXR, CT, endoscopic ultrasound
- Neoadjuvant therapy: Radiation and Chemotherapy
- Surgery: Sphincter saving vs. APR
- Surgery: Laparoscopy vs. Laparotomy
- Additional Chemotherapy

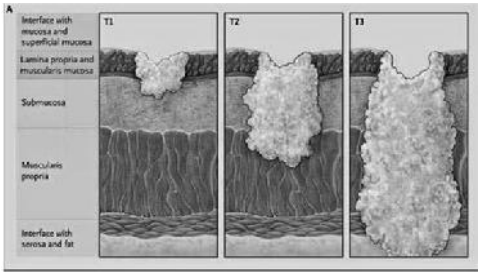
Staging and Prognosis



Staging and Prognosis

T1	Tumor invades submucosa
T2	Tumor invades muscularis propria
T3	Tumor invades through muscularis propria into pericolorectal fat
T4	Tumors invades into adjacent structures
N0	No regional nodes
N1	Metastasis to 1-3 nodes
N2	Metastasis to 4 or more nodes
M0	No distant metastasis
M1	Metastasis to distant site (liver, lung, ovary)

Depth of Invasion



Staging and Prognosis

Stage I	(T1-2 N0)	93%
Stage IIA	(T3 N0)	85%
Stage IIB	(T4 N0)	72%
Stage IIIA	(T1-2 N1)	85%
Stage IIIB	(T3-4 N1)	64%
Stage IIIC	(any T N2)	44%
Stage IV	(M1)	8%

Questions?