Quick Review: Cancer Of The Large Intestine
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Citation

Abstract
150,000 new cases of Colorectal CA are diagnosed each year in the United States and 60,000 people die of this disease annually. The actual incidence increases with age: at age 50, 0.39 per 1000 persons/yr; at age 80, 4.5 per 1000 persons/yr. Carcinoma of the colon (particularly the right side) is more common in women while carcinoma of the rectum is more common in men.

RIGHT COLON
- Unexplained Weakness or Anemia
- (+) Occult Blood
- Dyspeptic Symptoms

LEFT COLON
- Change in Bowel Habits
- (+) Gross Blood
- Obstructive Symptoms

RECTUM
- Rectal Bleeding
- Intrarectal Tumor
- Sigmoidoscopic Findings

INCIDENCE
150,000 New Cases of Colorectal CA are Diagnosed Each Year in the USA
60,000 People Die of this Disease Each Year
Incidence Increases with Age:
- Age 50, 0.39 per 1000 persons/yr
- Age 80, 4.5 per 1000 persons/yr

GENETIC PREDISPOSITION HAS BEEN WELL DOCUMENTED
1. Familial Adenomatous Polyposis (Chromosome 5)
2. Cancer Family Syndrome (Lynch II): Early Onset (age 20 -30) Proximal Dominance Endometrial Carcinoma
3. Hereditary Site-Specific Colon Cancer (Lynch I)
4. Ulcerative Colitis
5. Crohn's Colitis
6. Schistosomal Colitis
7. Exposure to Radiation

MECHANISMS OF SPREAD
Direct Extension [Carcinoma grows Circumferentially]
Hematogenous Metastasis [Portal Venous Blood to the Liver]
Regional Node Metastasis [Most Common Form]
Transperitoneal Metastasis [“Seeding” - through the Serosa]
Intraluminal Metastasis [Rare !]

**DUKE’S CLASSIFICATION**

1. Limited to the Bowel Wall
2. Extension through the Bowel Wall with Negative Nodes
3. Regional Node Metastasis

**DUKE’S MODIFICATION**

C\textsubscript{1} - Regional Node Metastasis
C\textsubscript{2} - Node Involvement at the Point of Vessel Ligation

**ASTER COLLER MODIFICATION**

A - Limited to Mucosa
B\textsubscript{1} - Extension into the Muscularis Propria
B\textsubscript{2} - Extension through the Muscularis Propria
C\textsubscript{1} - Limited to the Bowel Wall, with Positive Nodes
C\textsubscript{2} - Involvement of the Entire Bowel Wall, with Positive Nodes

“D” - Distant Metastases or Unresectable Lesions (Not Formally Included in Any Classification)

**AVERAGE 5-YR. SURVIVAL RATES USING DUKE’S**

- Stage A - 80 %
- Stage B - 60 %
- Stage C - 30 %
- Stage D - 5 %

**SOME POINTS**

1. Approximately 10 % of lesions are Not Resectable at the time of operation
2. An Additional 20 % of patients have liver or other distant metastases
3. Operation, for Cure, can only be performed on about 70 % of all patients
4. Operative Mortality Rate : 2 - 6 %
5. Survival Rate of Patients undergoing Curative Resection is 55 %
6. Overall Survival Rate (all stages) is 35 %

**TNM CLASSIFICATION OF COLORECTAL CANCER**

**PRIMARY TUMOR (T)**

Tx: Primary Tumor Cannot Be Assessed
To: No Evidence of Primary Tumor
Tis: Carcinoma in situ
T1 : Tumor invades the Submucosa
T2 : Tumor invades the Muscularis Propria
T3 : Tumor invades into the Subserosa
T4 : Tumor perforates the Visceral Peritoneum (or directly invades other organs)

**REGIONAL LYMPH NODES (N)**

Nx : Regional lymph nodes can not be assessed
No : No regional lymph node metastasis
N1 : Metastasis in one to three pericolic or perirectal lymph nodes
N2 : Metastasis in four or more pericolic or perirectal lymph nodes
N3 : Metastasis in any lymph node along the course of a named vascular trunk

**DISTANT METASTASIS (M)**

Mx : Presence of metastasis cannot be assessed
Mo : No Distant Metastasis
M1 : Distant Metastasis

**References**
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