

# Case Presentation, Discussion and Sharing of Information on Unresectable Colon Cancer

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# General Data

63 M

Pandacan, Manila

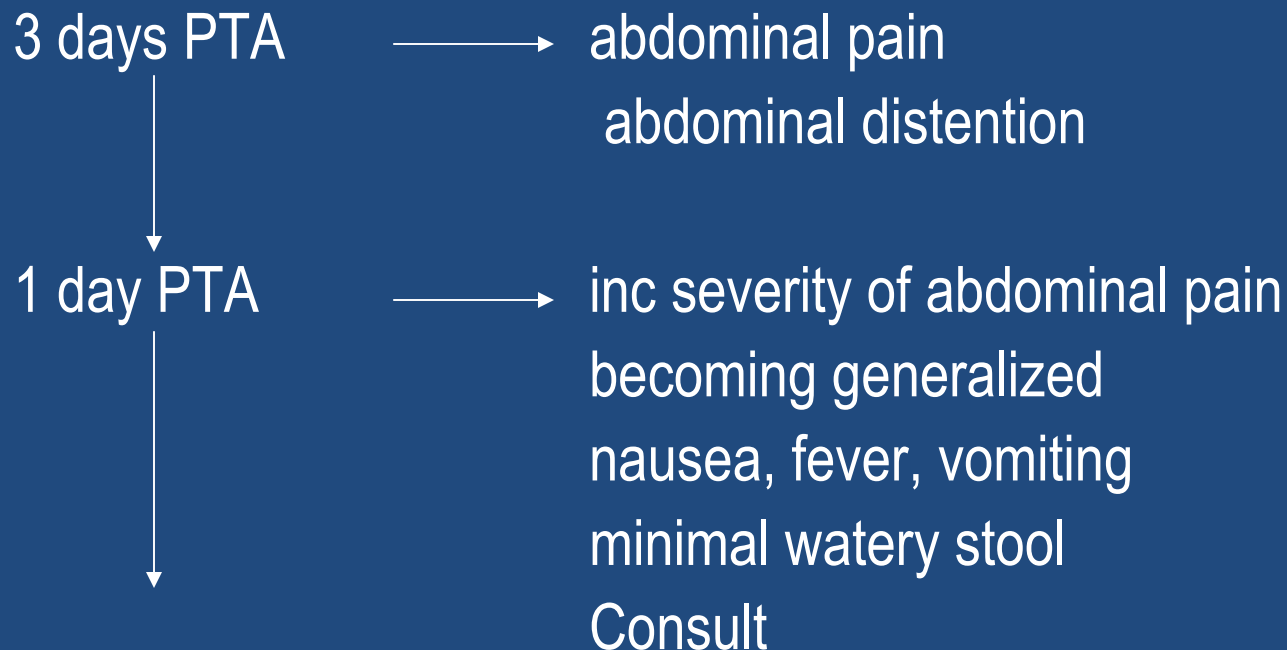
# Chief Complaint

Abdominal pain

# History of Present Illness

1 year history of changes in bowel habit

Colonoscopy : Left colonic mass



# History of Present Illness

plain abdominal x-ray:

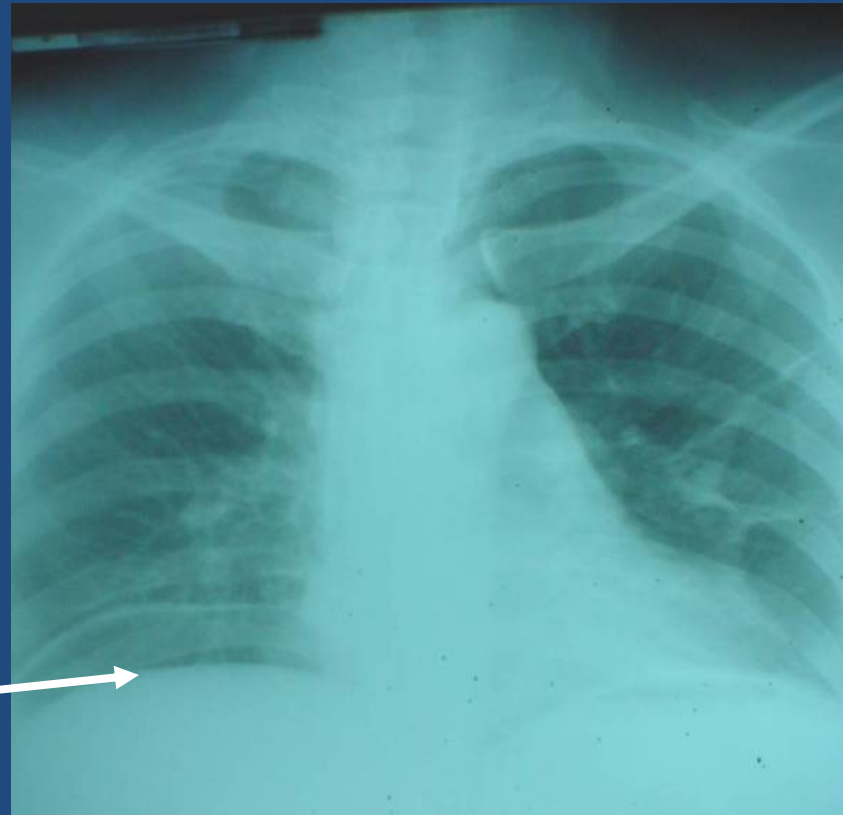
dilated large bowel up to the descending  
colon

interserosal thickening

# History of Present Illness

Pulmonary infiltrates

pneumoperitoneum



# History of Present Illness

Subsequently transferred to OMMC due to financial constraints



admission

## Past Medical History

- 2 weeks: on and off productive cough  
whitish phlegm

## Personal and Social History

- Smoker 20 pack years



# Physical Examination

Conscious, coherent, cachectic

BP	100/70	HR	112
RR	32	T°	38.9°

(+) dry buccal mucosa

Chest & Lungs

tachypneic

symmetrical chest expansion

harsh equal breath sounds

(+) bibasal crackles

Heart: Tachycardic, regular rhythm

## Abdomen

distended

hypoactive to absent bowel sounds

(+) direct tenderness all over

(+) muscle guarding

(+) rigidity

## Rectal

good sphincteric tone, rectal vault collapsed

(+) mucoid feces on tactating finger

# Salient Features

- 63 M
- 1 year hx of changes in bowel habit
- Colonoscopy : Left colonic mass
- (+) 3 day hx abdominal distention and  
crampy abdominal pain > generalized
- Hypotension, tachycardia, tachypnea
- (+) tenderness all over
- (+) muscle guarding & rigidity
- (+) pneumoperitoneum
- (+) dilated large bowel with interserosal thickening

**63 y/o male**  
**(+) hx changes in bm**  
**Colonoscopy: mass left colon**

**Abdominal distention**  
**Crampy abdominal pain**

**obstruction**

**Bibasal crackles**  
**Pulmonic infiltrates**

**Increased abdominal pain**  
**Becoming generalized**

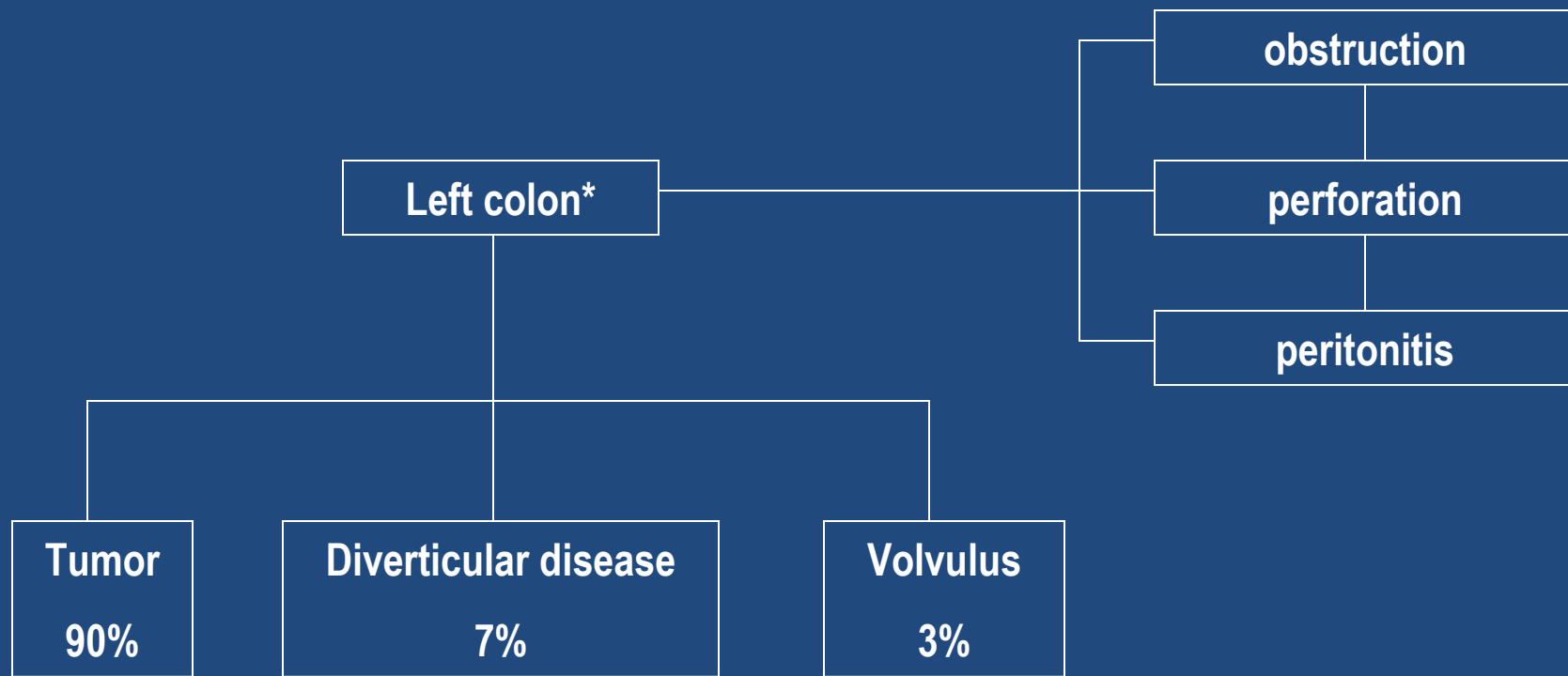
**Distended large bowel up to the  
descending colon**

**Left colonic  
pathology**

**Hypotension**  
**Tachycardia**  
**Tachypnea**  
**High grade fever**

**tenderness all over**  
**(+) muscle guarding & rigidity**  
**Pneumoperitoneum**  
**Interserosal thickening**

**Perforation**  
**Peritonitis**



*Cameron, JL. 2001*

# Clinical Diagnosis

	CONDITION	CERTAINTY	TREATMENT
PRIMARY	Acute Surgical Abdomen sec to Complete intestinal obstruction with tumor perforation	95%	surgical
SECONDARY	Acute surgical abdomen 2ndry to a perforated diverticulitis	5%	surgical

# Paraclinical diagnostic procedure

- **Do I Need A Paraclinical Diagnostic Procedure?**

**No.**

# Pretreatment Diagnosis

Diagnosis	Acute Surgical Abdomen sec to Complete Intestinal Obstruction with Tumor Perforation
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# Goals of treatment

- Resolve the underlying cause  
of obstruction, perforation and peritonitis
- Restore bowel continuity
- Least morbidity and mortality

# Management Options

	BENEFIT			RISK	COST	AVAILABILITY
Colectomy With Intraoperative Lavage And Anastomosis*	Main goal	Morbidity	Mortality	Anaesthesia ≈ Leak rate 7%	5,000.00- 7,000.00	√
	√√√	14-20%	0.6-11%			
Hartmann Procedure and delayed anastomosis*	√√	2-25%	0.6-17%	Anaesthesia ≈ Leak rate 4-16%	5,000.00- 7,000.00	√
Colectomy, colostomy, mucous fistula, and delayed anastomosis*	√√	2-25%	0.6-17%	Anaesthesia ≈ Leak rate 4-16%	5,000.00- 7,000.00	√
Colostomy*	√	25-48%	31-41%	Anaesthesia ↓	5,000.00	√

\*Murray, JJ et al

# Surgical Treatment of Choice

- Colectomy with intraoperative lavage and Anastomosis

- Give psychosocial support
- Optimize condition of patient
  - Nasogastric tube placed
  - Fluid resuscitation and hydration
  - Pre-op monitoring
  - Antibiotics
  - Screening of other condition that will interfere with treatment
- Prepare materials



# Operative Technique

- Patient supine
- Asepsis antisepsis
- Sterile drapes placed
- Midline incision carried down to the peritoneum
- Intraop findings noted

# Intraoperative Findings

- (+) generalized peritonitis
- (+) gross fecal spillage
- (+) sigmoid tumor  
perforation 7 cm from the  
peritoneal reflection
- Fixed, invades the iliac  
vessels
- 1.5cm mass, segment 3,5,  
liver
- (+) regional lymph node
- (+) dilated proximal colon  
with heavy fecal load

# Goals of Treatment

- Bypass obstruction
- Relieve peritonitis and gross fecal spillage
- Decrease fecal load
- Least morbidity and mortality

# Management Options

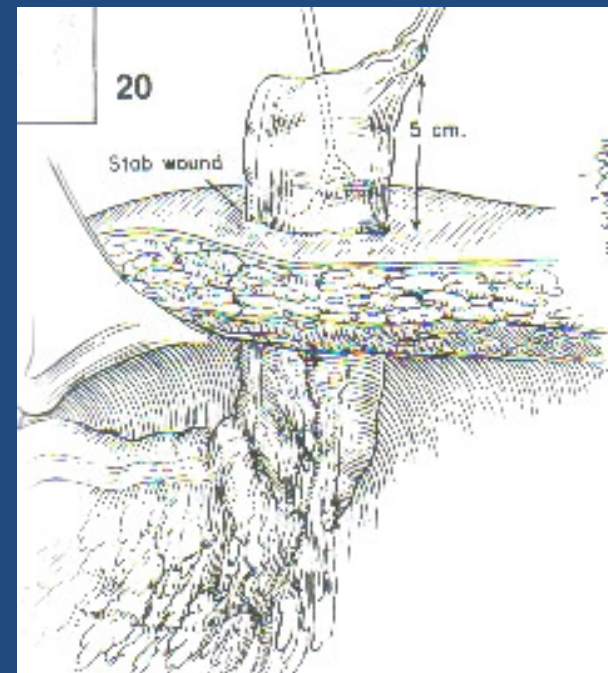
	BENEFIT			RISK	COST	AVAILABILITY
	Main goal	Morbidity	Mortality			
Transverse loop colostomy	✓✓	✓✓	✓	anesthesia	5k	✓
Descending loop colostomy	✓✓✓	✓	✓	anesthesia	5k	✓



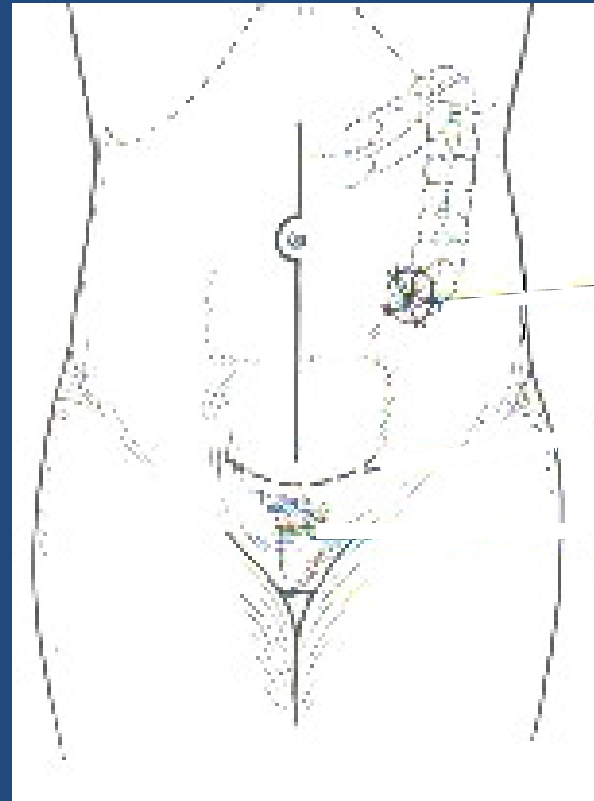
# Treatment Plan

- Descending Loop Colostomy, Omental Patch on Tumor Perforation
- Distal colonic wash out

- Peritoneal lavage
- Colostomy with mucous fistula created, descending colon
- Intraoperative colonic lavage done

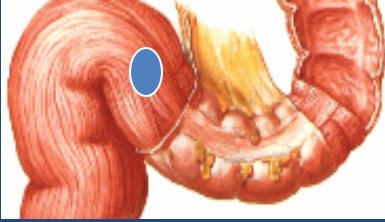


- Omentum laid over the tumor perforation
- Hemostasis/peritoneal wash
- Instrument and sponge checked
- Layer by layer closure
- Partial skin closure
- Colostomy bag applied
- Wound lightly dressed



# Operation

Exploratory Laparotomy,  
Descending Loop Colostomy  
Omental Patch on Tumor Perforation  
Distal Colonic Wash



# Final Diagnosis

Intestinal Obstruction with  
Generalized Peritonitis 2ndry to a  
perforated Sigmoid carcinoma  
Stage IV (T4N2M1)



# Post-op Care

1st POD



NGT maintained  
Hydration continued  
IV Antibiotics

3rd POD



Catheter removed  
NGT removed  
Diet as tolerated

5th POD



IVF consumed  
Shifted to oral meds

# Goals of Treatment

- Increase survival
- Quality of life

# Postoperative Management Options

	BENEFIT		RISK		COST	AVAILABILITY
	Mean Survival	QOL	Morbidity	Mortality		
With no Surgical Resection (Palliative Care-CX <sup>^</sup> )	12 months	√√√	√	reduced risk of death (0.65 hazard ratio)	10k	√
Supportive Care <sup>^</sup> (RT, Pain mgt, Palliative Surgery)	3-5 months	√√	√√		10k	√

<sup>^</sup> Salcberge, ED et al.



# References

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- Murray JJ, Schoetz DJ, Collier JA, Roberts PL, Veidenheimer MC: Intraoperative colonic lavage and primary anastomosis in nonelective colon resection. Dis Colon Rectum. 1991; 34(7):527-31.
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# References

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- Scoggins CR, Meszoely IM, Blanke CD, et al: Nonoperative management of primary colorectal cancer in patients with stage IV disease. Ann Surg Oncol 6:651, 1999
- Zorcolo L, Covotta L, Carlomagno N, Bartolo DC. Safety of primary anastomosis in emergency colo-rectal surgery. Rev Gastroenterol Mex. 1999; 64(3):127-33.

# Synchronous Metastatic (Stage IV) Disease

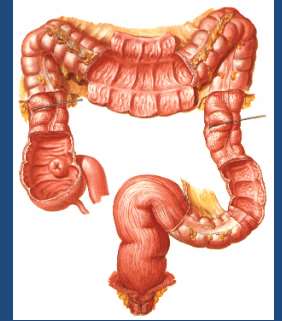
- 20% of CRC patients have metastatic disease at the time of initial presentation.
- The need for surgical intervention in this group of patients is not well defined.
- Clearly, surgical resection or diversion is indicated in patients who present with significant bleeding, perforation, or obstruction.

- In asymptomatic patients with **unresectable** metastatic disease, the role of surgical resection of the primary lesion remains controversial.
- In patients with resectable metastatic disease (e.g., isolated liver or lung metastases), curative resection may be undertaken.

- retrospective review (Scoogins, et al) with **unresectable** stage IV CRC, there was no difference in survival between those who were initially managed surgically and those who were initially managed nonoperatively.
- In the surgical group, the morbidity rate was 30% and the mortality 5%. Only 9% of the nonoperative patients subsequently required surgical intervention for bowel obstruction.

- In another retrospective series, patients managed surgically had significantly better overall survival than those managed nonoperatively but had a lesser tumor burden
- 29% of the nonoperative patients eventually required surgery for bowel obstruction.

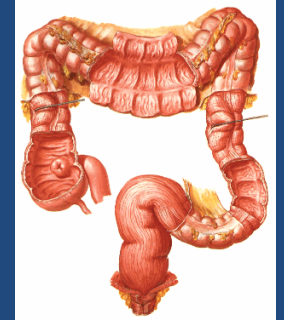
# Discussion



- Initial complication due to colon carcinoma
  - left colon 70%
  - bowel obstruction 8-21% of patients
  - perforation 10%

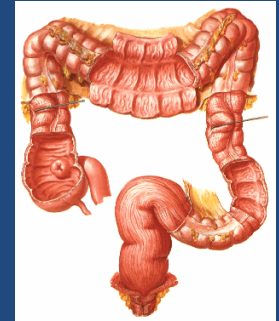


# Discussion



- Series of 735 patients
  - free perforation 27
  - tumor perforation 20
  - perforation proximal to obstruction 7
- Reflects indolent course of large bowel obstruction from neoplasms

# Discussion



- Perforation

- most lethal complication of colorectal carcinoma

- 4 fold operative mortality

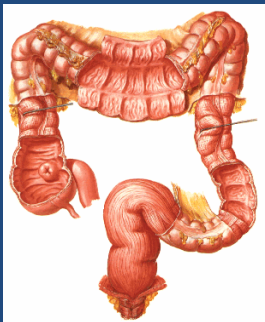
- 5 year survival  $\frac{1}{4}$  that of the overall population

- Poor prognosis

- function of the more advanced stage of the disease

- sequelae from the complicated manifestations

- Considering patients surviving curative resections  
penetrating and obstructing lesions  
assoc. with 5year survival the same  
as curative resection group as a whole  
perforating lesions  
roughly half the life expectancy



Kelley. W, Brown P, Lawrence W., Terz J

Penetrating, obstructing, an perforating carcinomas of the  
colon and rectum. Dis Colon Rectum. 1991;34(7):527-31.

- 323 patients
- outcome of resection and primary anastomosis vs Hartmann's procedure
- Stratified: localized peritonitis  
generalized peritonitis  
or with obstruction

Zorcolo L, Covotta L, Carlomagno N, Bartolo DC. Safety of primary anastomosis in emergency colo-rectal surgery. Rev Gastroenterol Mex. 1999; 64(3):127-33.

- Resection anastomosis 176 (55.7%)
  - anastomotic dehiscence 9(5.1%)
  - wound sepsis 8(4.5%)
  - median hosp. stay 13 days
  - mortality rate (5.7%)
- Hartmann's resection
  - systemic morbidity (39.5%)
  - surgical morbidity (24.3%)
  - mortality rate (20.4%)
- RA performed with low M&M in selected patients even in the presence of free perforation with diffuse peritonitis
- Px selected for staged resection: major co-morbid disease

## An anatomical illustration of the female reproductive system. The central organ is the pear-shaped uterus, which is divided into an upper fundus and a lower body. It has a segmented, bumpy appearance. Two fallopian tubes extend from the upper corners of the uterus, each ending in a finger-like projection called a fimbria. At the end of each fallopian tube is an ovary, which is a small, oval-shaped organ. The entire system is shown in a reddish-pink color, indicating its vascular nature.

TX primary tumor cannot be assessed

Tis carcinoma in situ: intraepithelial or invasion of lamina propria

T2 tumor invades muscularis propria

T4 tumor directly invades other organs or structures and/or perforates visceral peritoneum

# TNM CLASSIFICATION

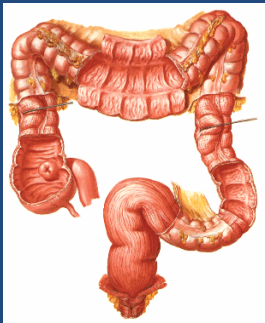
- Regional lymph nodes (N)

Nx regional lymph nodes cannot be assessed

N0 no regional lymph node metastasis

N1 metastasis in 1 to 3 regional lymph nodes

N2 metastasis in 4 or more regional lymph nodes



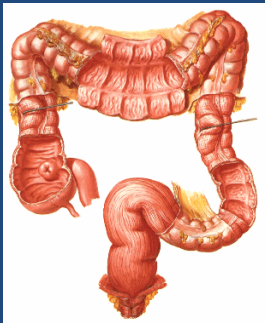
# TNM CLASSIFICATION

- Distant metastasis (M)

Mx Distant metastasis cannot be assessed

M0 no distant metastasis

M1 distant metastasis





AJCC/UICC				Dukes	5 year survival
Stage 0	Tis	N0	M0	-	
Stage I	T1	N0	M0	A	90%
	T2	N0	M0	-	
Stage II	T3	N0	M0	B	60-80%
	T4	N0	M0	-	
Stage III	Any T	N1	M0	C	20-50%
	Any T	N2	M0	-	
Stage IV	Any T	Any N	M1	-	<5%

- Factors with negative prognostic influence
  - poor histologic differentiation
  - mucin producing tumors
  - signet ring cell tumors
  - venous or perineural invasion by cancer
  - bowel perforation
  - elevated CEA level
  - aneuploid nuclei

- Adjuvant chemotherapy  
treatment with 5FU + low dose  
leucovorin  
5% significant prolongation DFS  
4% in overall survival

Wolmark N, Rockette H, Mamounas E, et al: Clinical trial to assess the relative efficacy of fluorouracil and leucovorin, fluorouracil and levamisole, and fluorouracil, leucovorin, and levamisole in patients with Dukes' B and C carcinoma of the colon: Results from National Surgical Adjuvant Breast and bowel Project C-04. J Clin Oncol 1999; 17:3553-3559

MCQ/MCR

1. The following factors have a poor prognostic influence in the survival of patients with colonic carcinoma, except:
  - a. venous or perineural invasion by cancer
  - b. bowel perforation
  - c. depressed CEA level
  - d. aneuploid nuclei
  - e. poor histologic differentiation
  
2. The 5 year survival rate of Stage III colonic carcinoma is
  - a. <5%
  - b. 10%
  - c. 20-50%
  - d. 60-80%
  - e. 90%

3. The following is/are treatment option/s for left colonic obstruction

1. Segmental colectomy, intraop lavage, anastomosis
2. Hartmann's procedure with delayed anastomosis
3. Colectomy, colostomy, mucous fistula with delayed anastomosis
4. Subtotal Colectomy

4. Which surveillance guidelines is/are recommended by ASCO after curative resection for colonic carcinoma:
  1. chest x-ray annually
  2. history and physical examination 3-6 months first 3 years then annually
  3. liver ultrasound every year
  4. Colonoscopy, 3-5 years

5. The following statements is/are true regarding stage IV Colorectal Cancers.

1. 20% of CRC patients have metastatic disease at the time of initial presentation.
2. The need for surgical intervention in this group of patients is not well defined.
3. Clearly, surgical resection or diversion is indicated in patients who present with significant bleeding, perforation, or obstruction.



4. In patients with resectable metastatic disease (e.g., isolated liver or lung metastases), curative resection should not be undertaken.

Thank you for your kind attention!