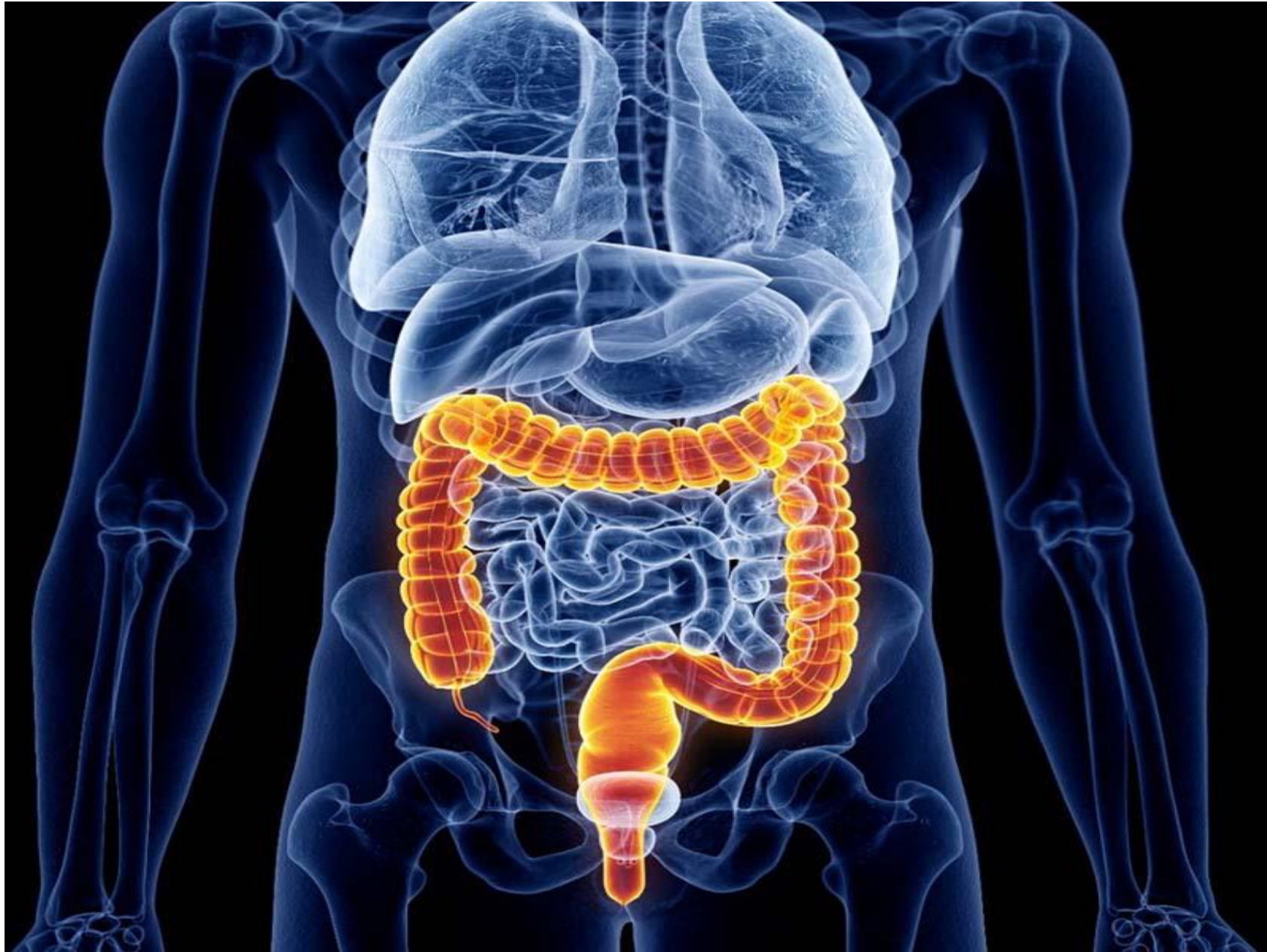




# *Colorectal cancer*

Dr. Afshin Shahbazi

99/5/1



- Definition of CRC

- Epidemiology

- Risk factors

Regimen, Habits, IBD, Genetic, etc

HNPCC, FAP, PJS and Relation to other cancers

- Sing & symptoms

Bowel habits, GIB( Gross, Obscure ), Abdominal pain, IDA, Fatigue,  
obstruction , Asymptomatic

- Prophylaxis

- Primary
- secondary
- tertiary

- Primary prophylaxis
  - Drug :NSAIDs, FA
  - Diet ( Fiber, Red meat, conservatives , ..)
  - Exercise
  - Alcohol
  - Smoking

- Secondary prophylaxis:

### Options for CRC screening

#### Stool-based tests

- Fecal immunochemical test every y
- High-sensitivity, guaiac-based fecal occult blood test every y
- Multitarget stool DNA test every 3 y

#### Structural examinations

- Colonoscopy every 10 y
- CT colonography every 5 y
- Flexible sigmoidoscopy every 5 y

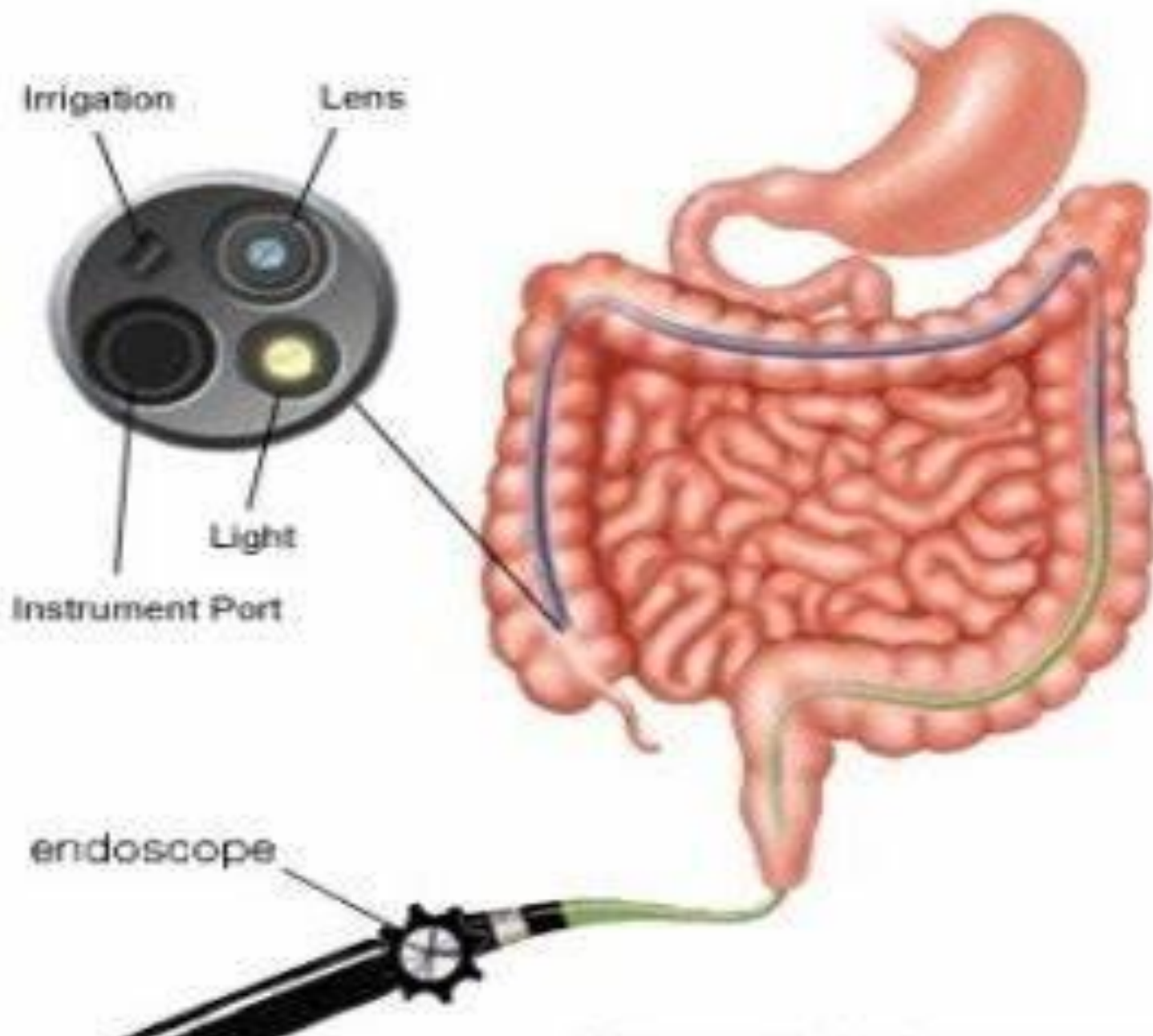
Screening Test	Considerations
<b>Fecal Immunochemical Test (FIT)</b> <i>Interval:</i> Every year	<ul style="list-style-type: none"> <li>▶ Evidence of superior performance in cancer and adenoma detection compared to HSgFOBT</li> <li>▶ High nonadherence (especially in the absence of annual reminder systems)</li> </ul>
<b>High-sensitivity Guaiac-based Fecal Occult Blood Test (HSgFOBT)</b> <i>Interval:</i> Every year	<ul style="list-style-type: none"> <li>▶ Higher false-positive rate than FIT (leads to more colonoscopies)</li> <li>▶ High nonadherence (especially in the absence of annual reminder systems)</li> <li>▶ Requires multiple samples, reducing adherence compared with FIT</li> <li>▶ Requires avoidance of nonsteroidal anti-inflammatory drugs for 7 days; and avoidance of vitamin C, red meat, and cruciferous vegetables for 3 days prior</li> </ul>
<b>Multi-target Stool DNA Test (MT-sDNA)</b> <i>Interval:</i> Every 3 years	<ul style="list-style-type: none"> <li>▶ Evidence of superior performance in cancer and adenoma detection compared with HSgFOBT and FIT.</li> <li>▶ Improved detection of advanced adenomas and sessile serrated polyps compared to other stool-based tests</li> <li>▶ Higher false-positive rate than FIT (leads to more colonoscopies)</li> <li>▶ Uncertainty in management of positive results followed by a negative colonoscopy</li> <li>▶ New test, needs performance monitoring over time</li> </ul>

Screening Test	Considerations
<b>Colonoscopy</b> <i>Interval:</i> Every 10 years	<ul style="list-style-type: none"> <li>▶ Offers both early detection and prevention of CRC through polypectomy</li> <li>▶ Risks: bowel perforation – 4 in 10,000; major bleeding – 8 in 10,000; cardiovascular event (due to sedation) – 2-4 in 10,000. These risks increase with age and comorbidity burden.</li> <li>▶ Laxative preparation may not be done properly, leading to suboptimal visualization.</li> </ul>
<b>CT Colonography (CTC)</b> <i>Interval:</i> Every 5 years	<ul style="list-style-type: none"> <li>▶ Comparable performance to colonoscopy in identifying cancer and advanced adenomas without procedural risks of colonoscopy</li> <li>▶ Exposure to low-dose radiation</li> <li>▶ Incidental extracolonic findings may require workup.</li> <li>▶ May not be covered by insurance (not covered by Medicare at this time)</li> </ul>
<b>Flexible Sigmoidoscopy (FS)</b> <i>Interval:</i> Every 5 years	<ul style="list-style-type: none"> <li>▶ Best evidence among structural exams for reducing CRC mortality and incidence</li> <li>▶ Risks: bowel perforation – 1 in 10,000; major bleeding – 2 in 10,000</li> <li>▶ Self-administration of enemas may not be done properly, leading to suboptimal visualization.</li> <li>▶ Misses cancers and polyps in the proximal colon</li> </ul>

- Age
  - Average risk( 45 – 50 to 76-85)
  - High risk
- Interval
  - Average risk
  - High risk
- Procedure
  - Stool based
  - Structural
- Non approved
  - DCBE
  - WCE
  - Sept9

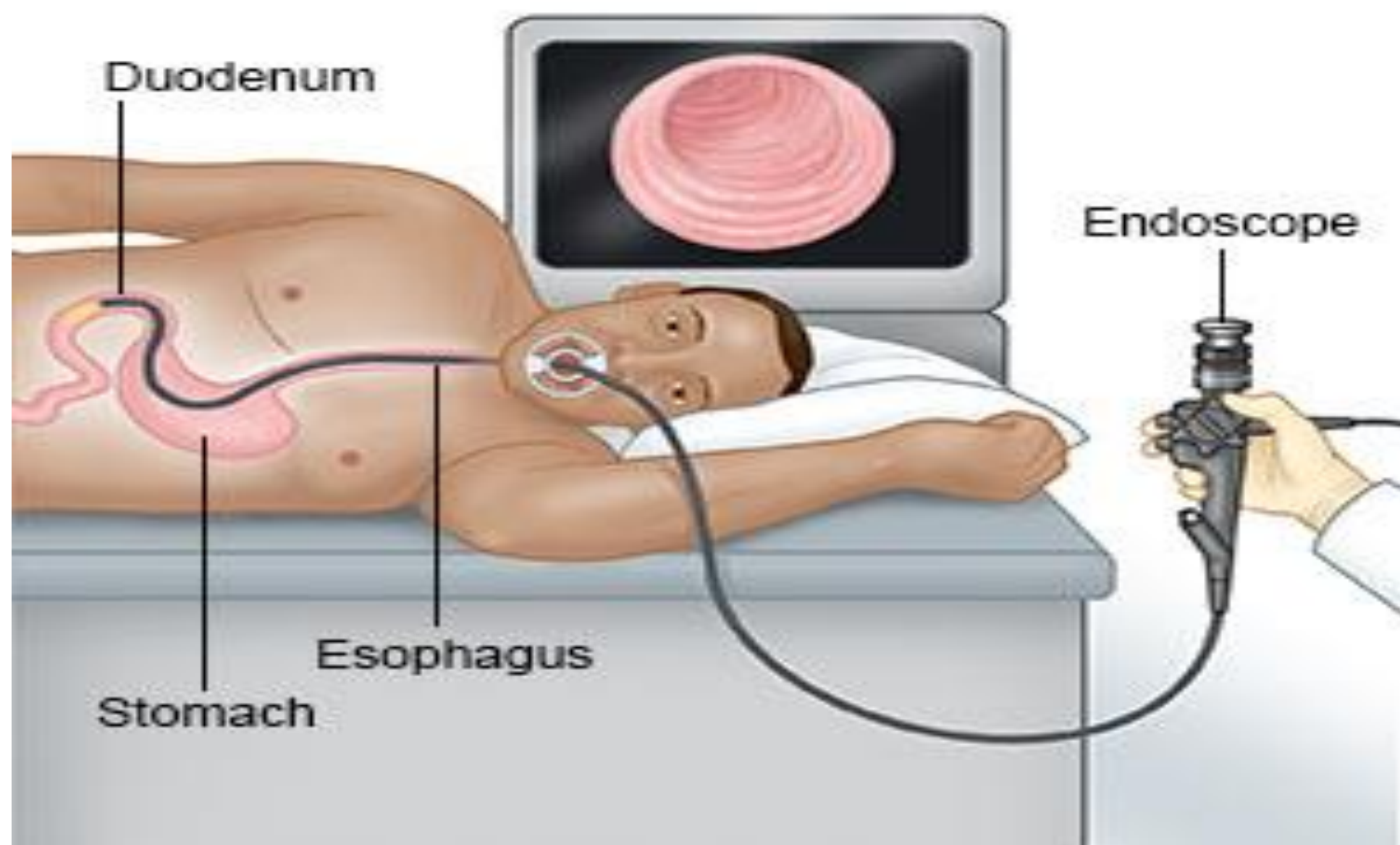


# COLONOSCOPY ENDOSCOPE





## Upper Endoscopy



# BowelPrepGuide

Your guide to excellent bowel prep.



- PEG
  - 4 to 6
  - 1/3 , 2/3
  - Lactulose not approved
- Laxatives
  - Senna
  - Bisacodyl
- Antiemetic's
  - Demitron/plasil
- Diet
  - Clear
- Mobility

# PATIENT INSTRUCTION SHEET

## SPLIT-DOSE regimen

Evening before AND day of the procedure



PACKET

1

The night before your  
colonoscopy procedure

DATE  /  /  TIME  :  PM to  :  PM

### STEP ONE

Fill the dosing cup provided with  
cold water up to the lower (5-ounce)  
line on the cup



### STEP TWO

- Pour in the contents of ONE (1) packet
- Stir for 2-3 minutes until dissolved
- Drink the entire contents



2-3 Min.

### STEP THREE

Follow with FIVE (5) 8-ounce drinks  
of clear liquid, taken at your own pace  
within the next 5 hours, before bed



1 2 3 4 5

Check off a circle as you finish each drink.

Please see Important Safety Information on reverse side.  
Please see accompanying full Product Information.



PACKET

2

The morning of  
your procedure

DATE  /  /  TIME  :  AM to  :  AM

### Repeat STEPS ONE and TWO



Follow with at least THREE (3) 8-ounce  
drinks of clear liquid within 5 hours,  
before the colonoscopy



1 2 3

Check off a circle as you finish each drink.

Your colonoscopy is scheduled for

DATE  /  /  TIME  :  PM  
AM



**Prepopik**<sup>TM</sup>  
(sodium picosulfate, magnesium oxide, and  
anhydrous citric acid) for oral solution  
10 mg/3.5 g/12 g per packet

### Indication

Prepopik is a prescription medicine used by adults to clean the  
colon before a colonoscopy. Prepopik cleans your colon by  
causing you to have diarrhea. Cleaning your colon helps your  
healthcare provider see the inside of your colon more clearly  
during your colonoscopy.

Additional information on reverse side. ►

# Are They Clear Liquids?



# Clear Liquid Diet for Colonoscopy

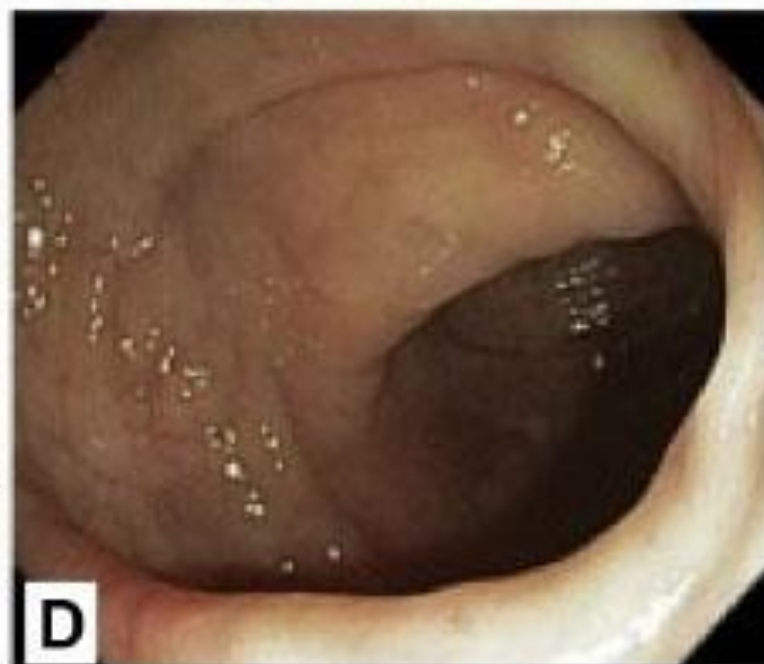
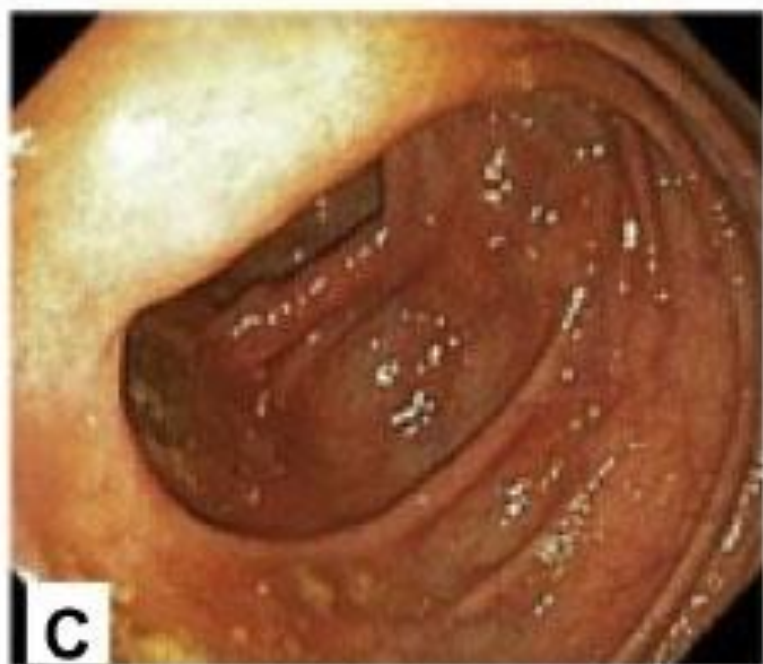
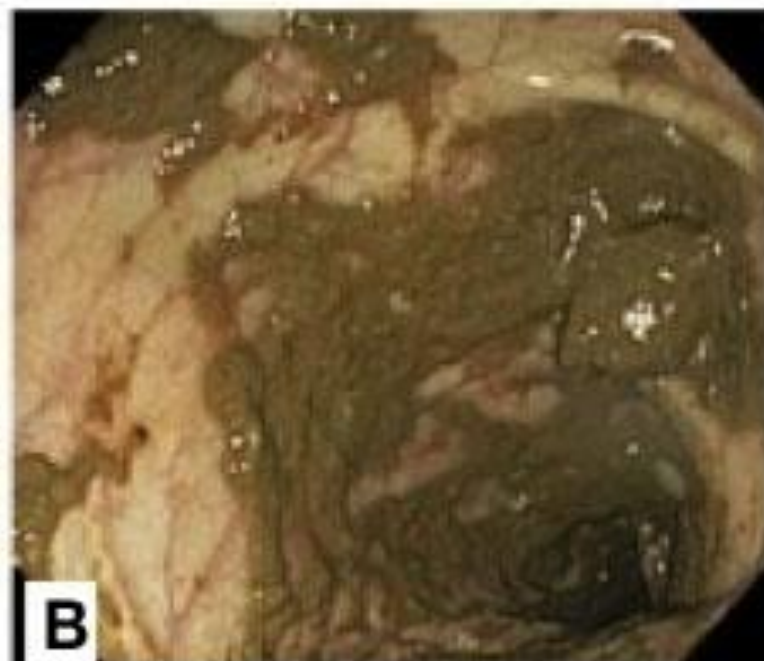
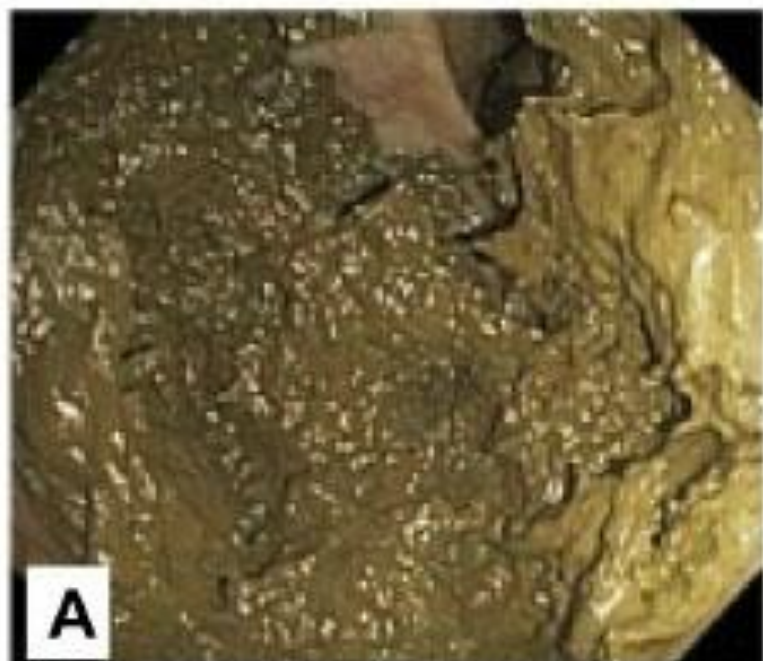
Drinks that are okay	Drinks that are not okay
Water	Orange or pineapple juice
Black coffee (or Tea) without milk or cream	Milk or dairy products
Sport drinks with electrolyte	Milk shakes
Carbonated beverages and Sodas	Malt
Apple juice	Alcoholic drinks
Foods that are okay	Foods that are not okay
Clear broth and soup	Vegetables
Honey	Fruits
Hard candies	Meat or poultry products
Gelatin	Bread
Popsicles	Pasta
Sugar	Rice, grains
Fruit Ices	Cereals
Sorbet	Seeds and nuts



## Bowel Preparation - Why

**Cleaned out  
So the doctor  
can see any  
problems**

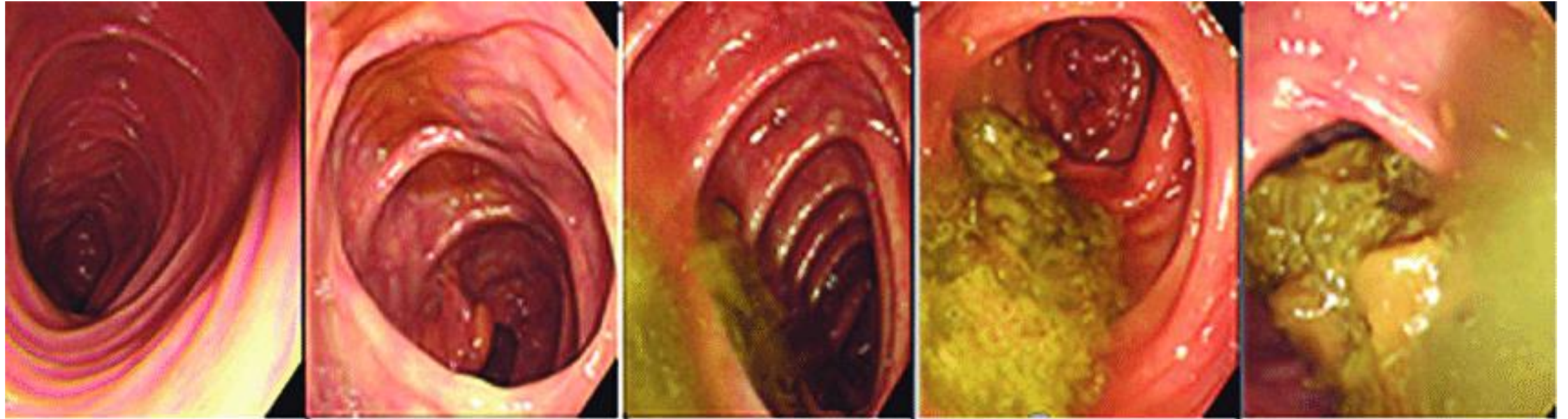






## Bowel Preparation Readiness Chart

Stool Color	Description	Readiness
	Dark, thick, particles	NOT READY
	Brown, thick, particles	NOT READY
	Dark orange, semi-clear	NOT READY
	Light orange, mostly clear	ALMOST READY
	Yellow, light, clear	READY



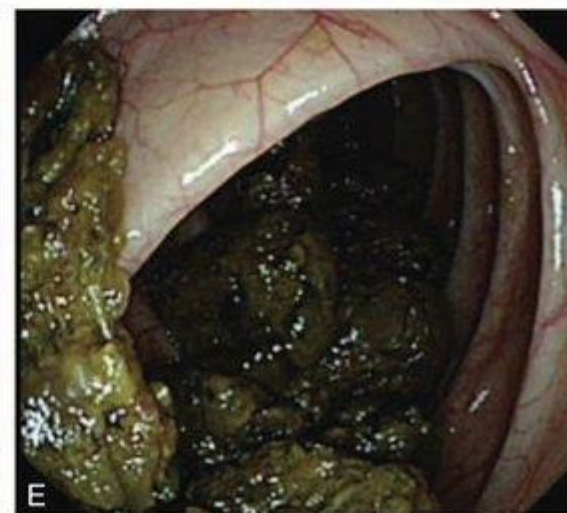
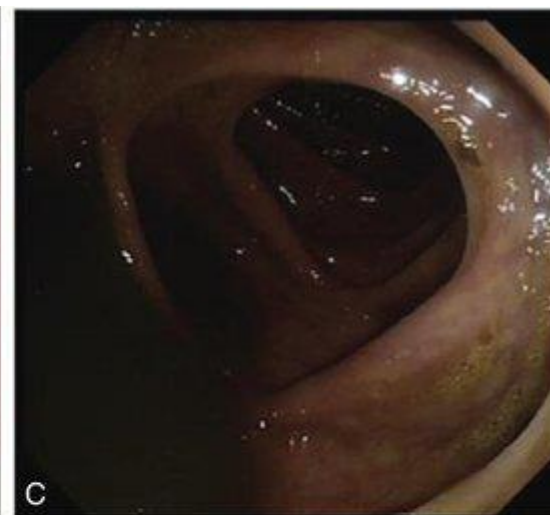
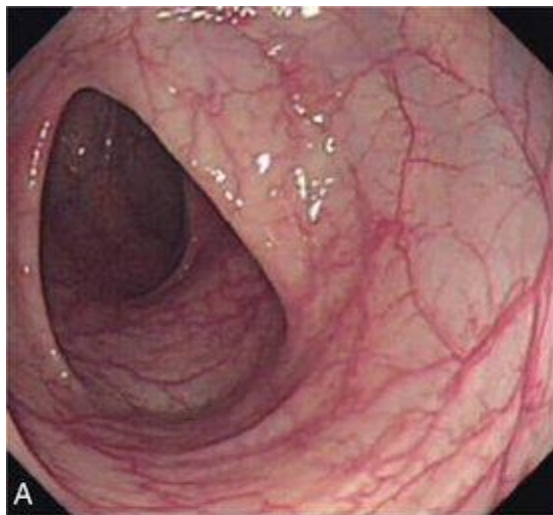
**Excellent**

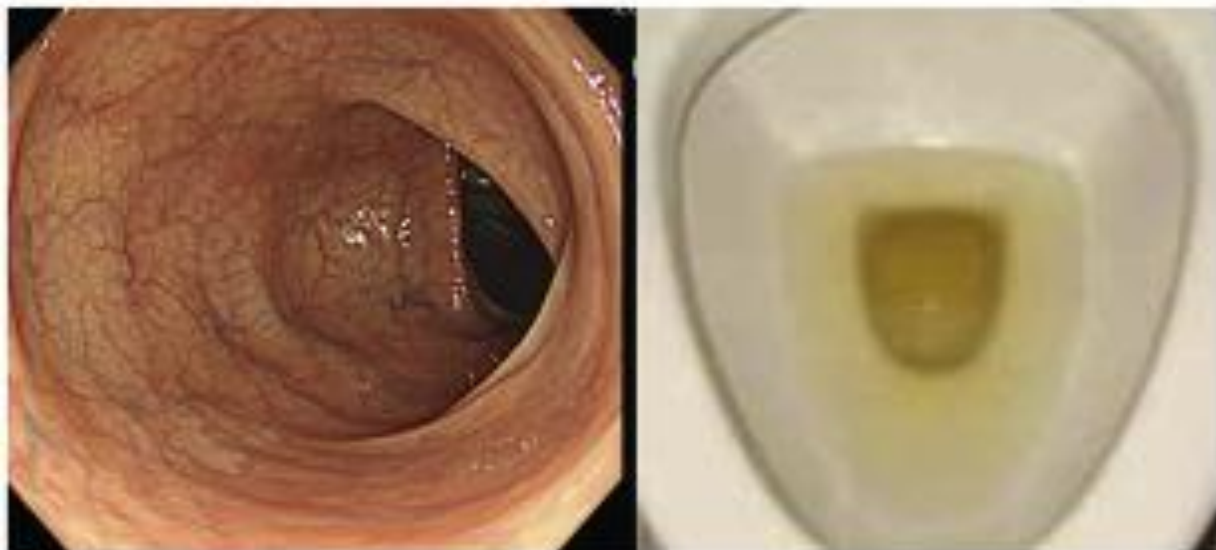
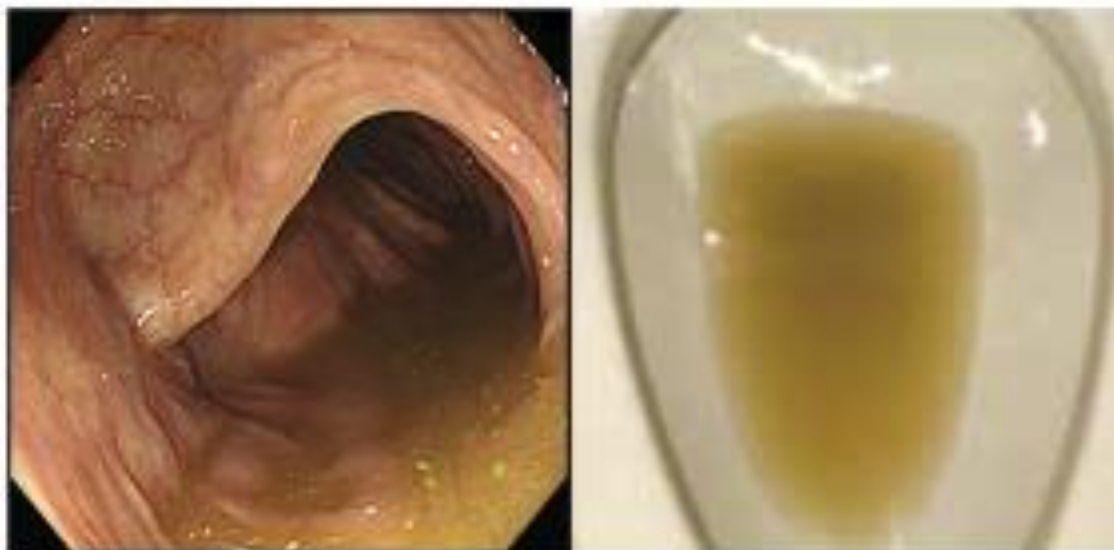
**Good**

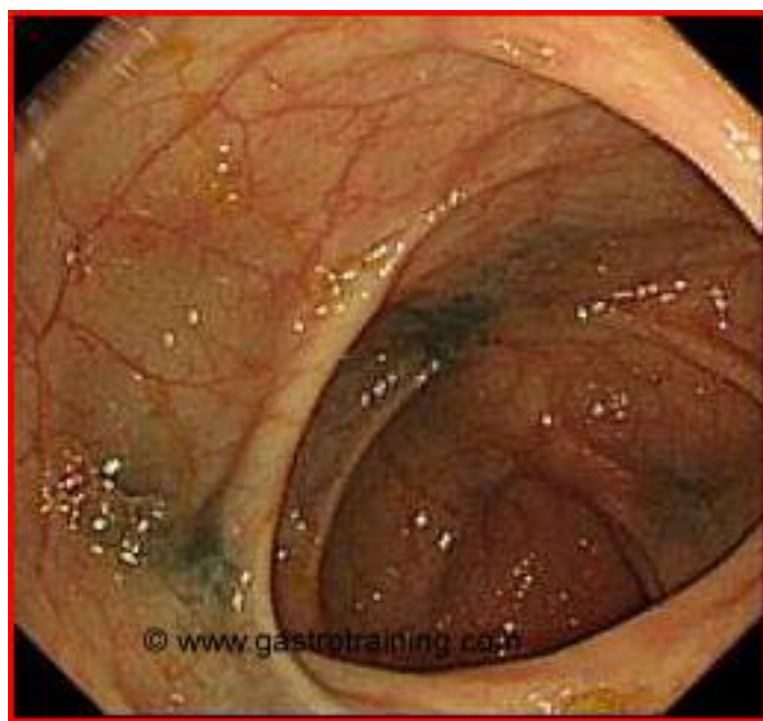
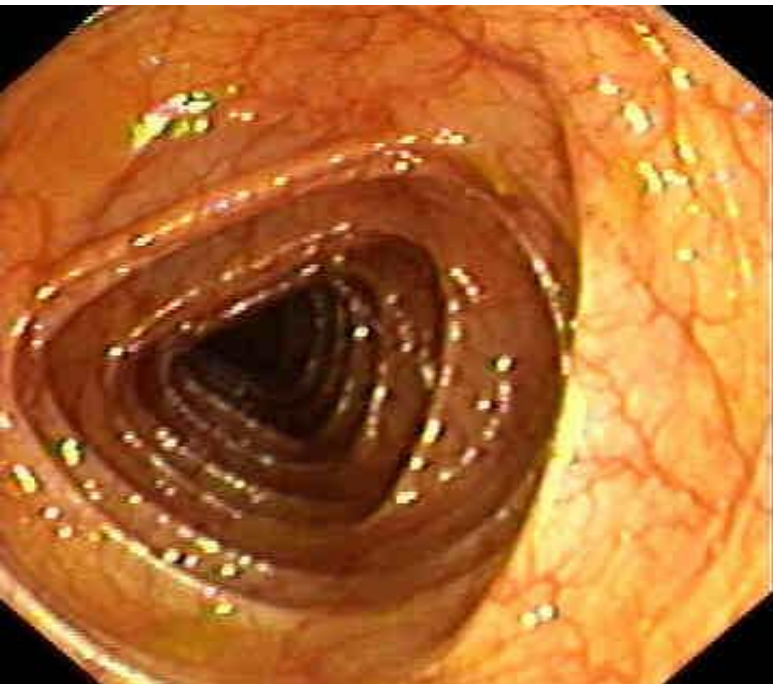
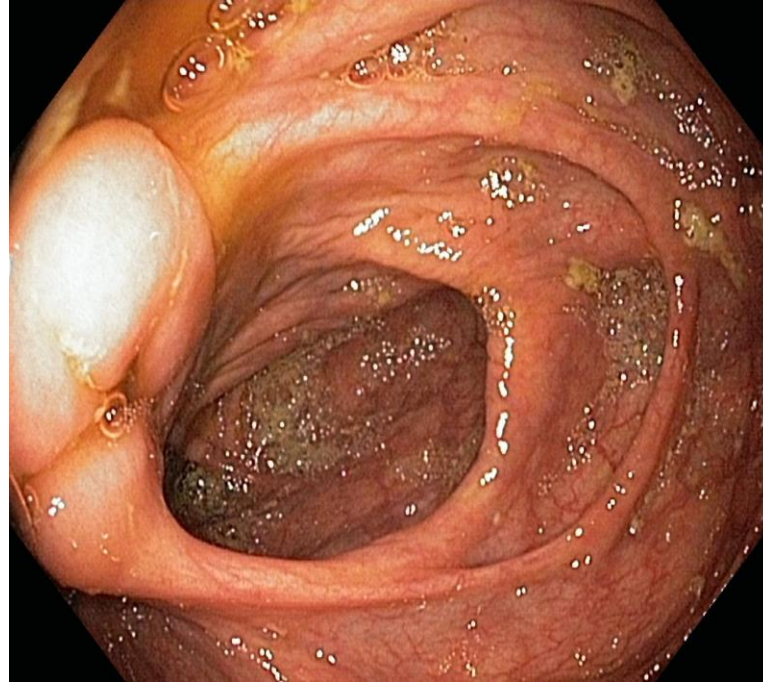
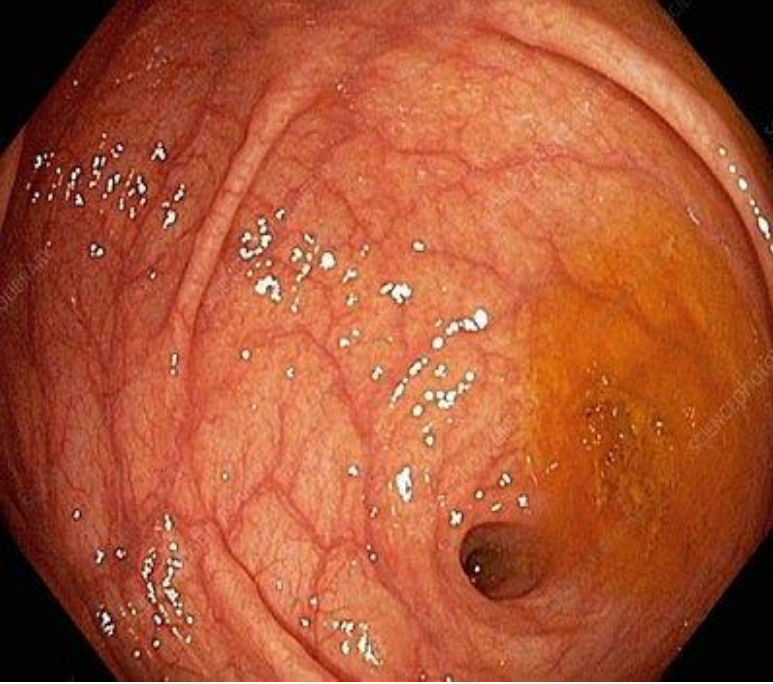
**Fair**

**Poor**

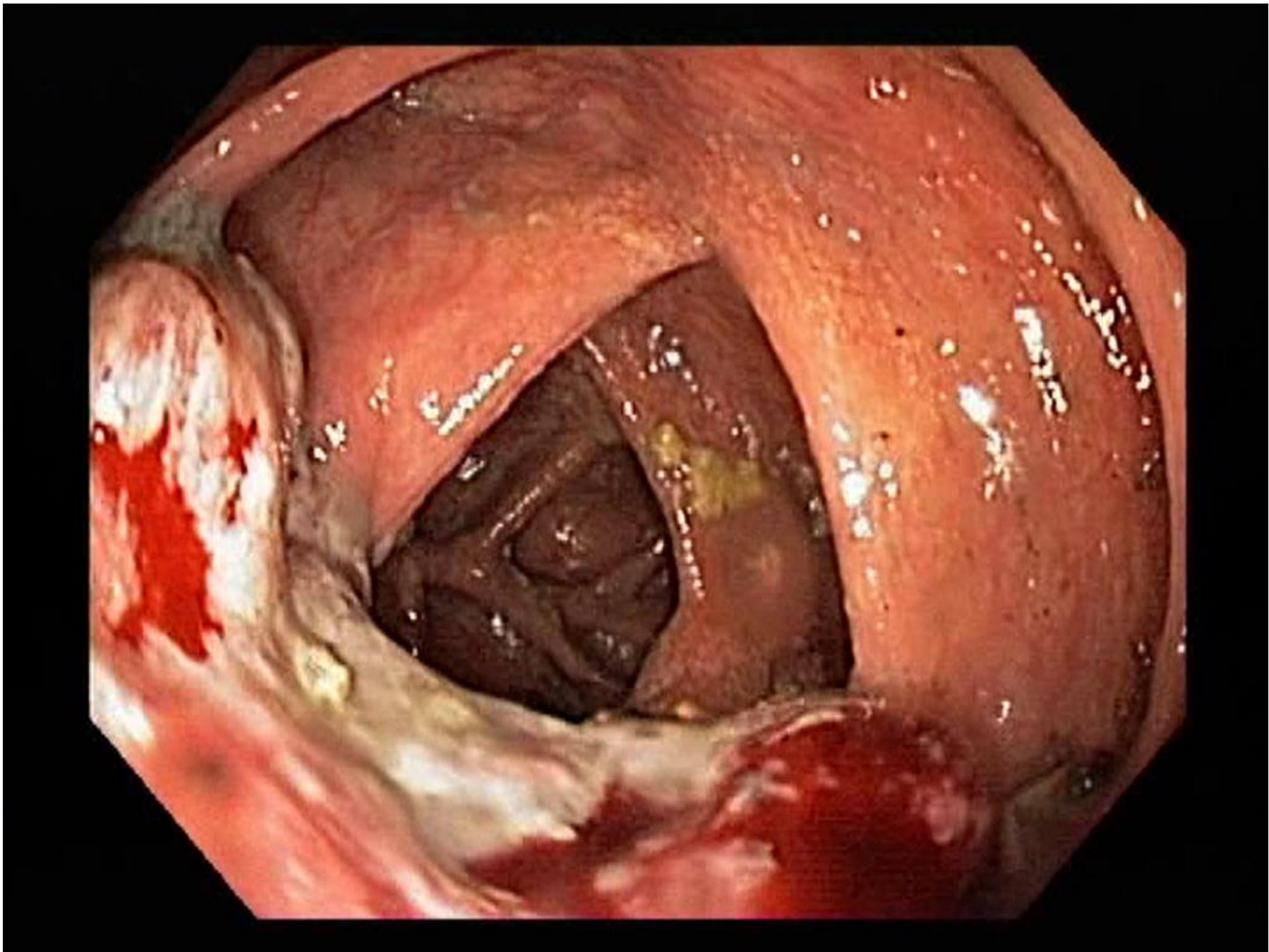
**Inadequate**

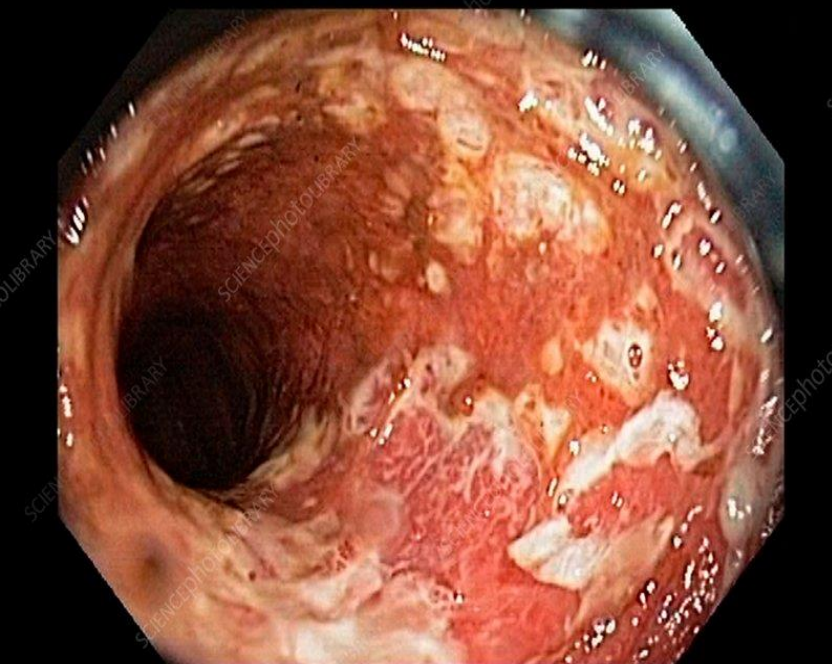
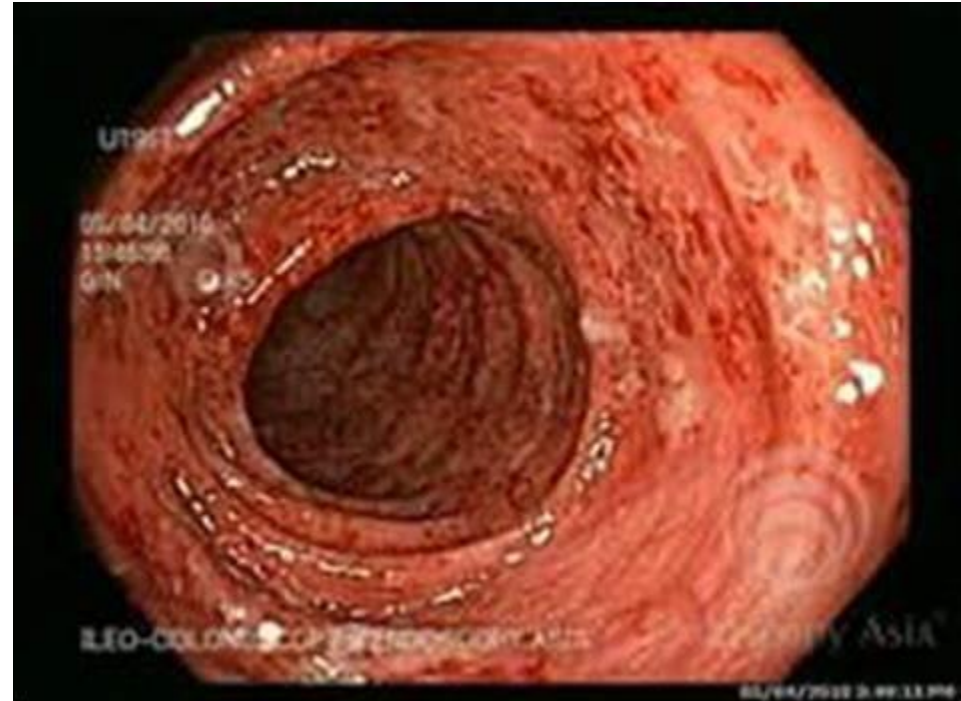


**A****B****C**







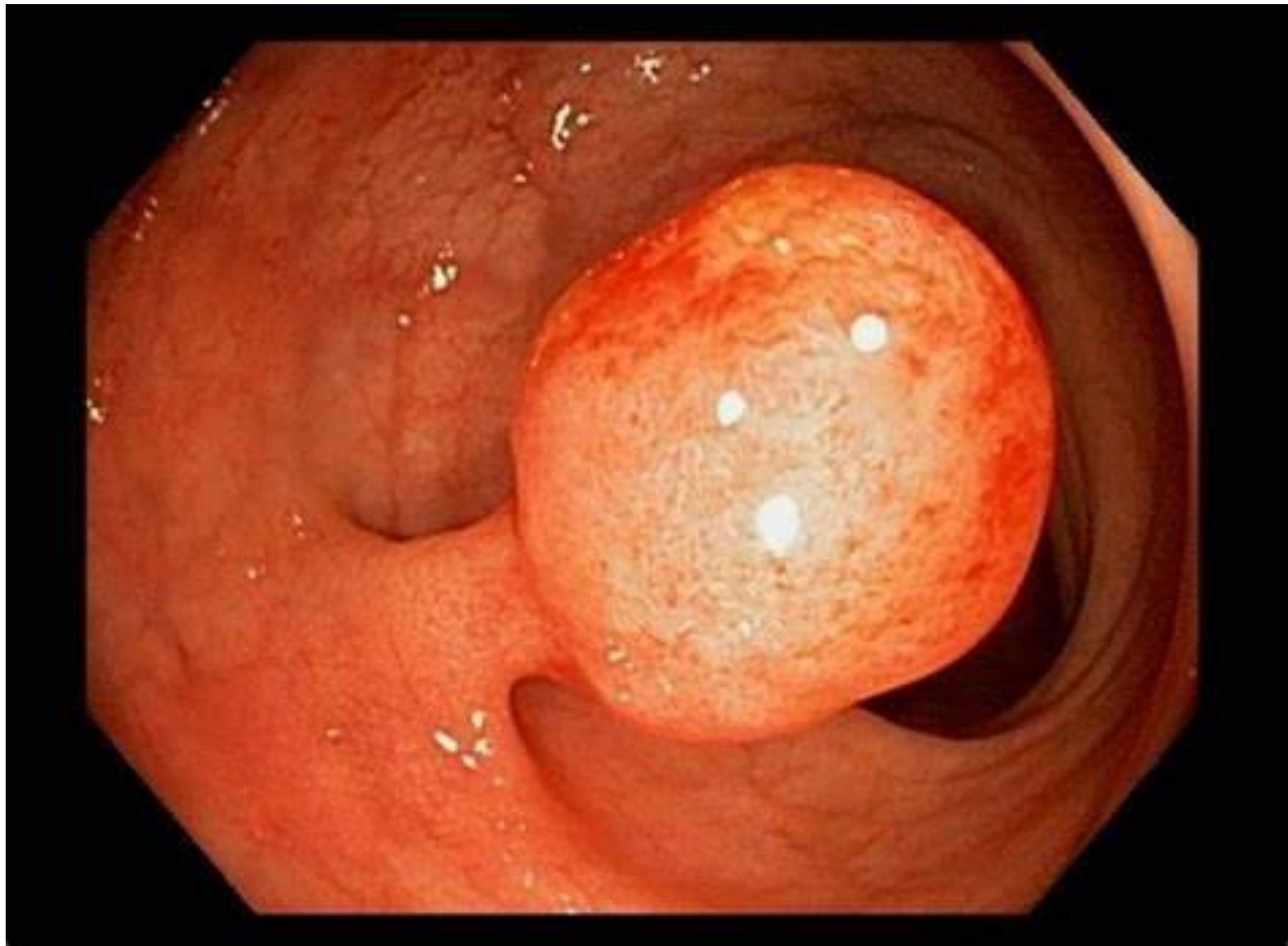


- Sampling

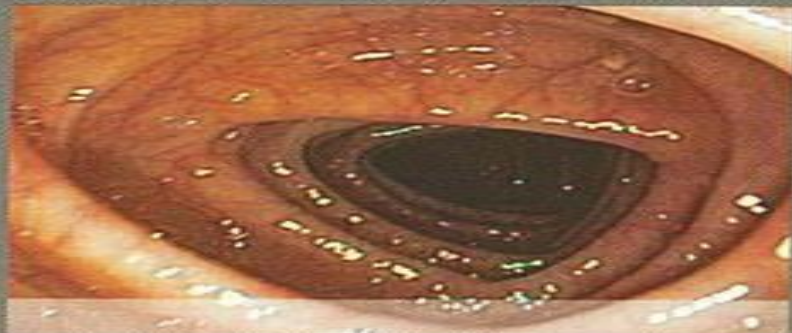


- Interventions





Excellent prep



Good prep



- Follow your doctor's directions to ensure your colon is as clean as possible

Fair prep



Poor prep



- A fair or poor prep can leave the colon dirty—making it difficult for your doctor to spot **abnormal growths**<sup>4,5</sup>



Flat lesion



Depressed lesion



Polyp



Elevated lesion

FAP



- HP, Adenoma, Serrated
- Mucosal tags
- Adenoma
  - TA
  - Villous
  - Tubulovillous
- Dysplasia
  - HGD
  - LGD
- Size
- Count

## Neoplastic lesions:

- F/U of patients with polyps
- F/U of patients with cancer
  - Surgery
  - CTx
  - RTx
  - Surveillance colonoscopy



Right hemicolectomy



Left hemicolectomy



Transverse colectomy



Sigmoid colectomy

A colectomy may be done anywhere within the shaded areas of the diagrams.

# ***Patients FAMILY???***

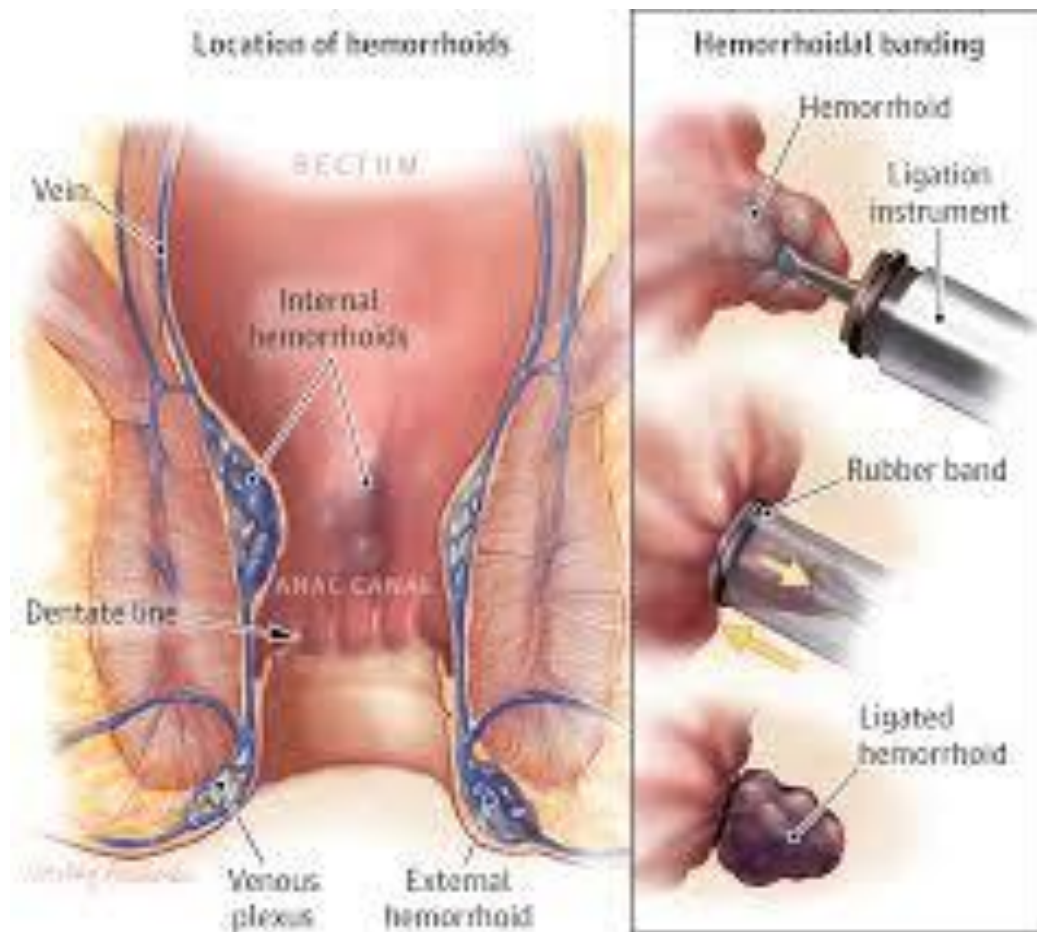
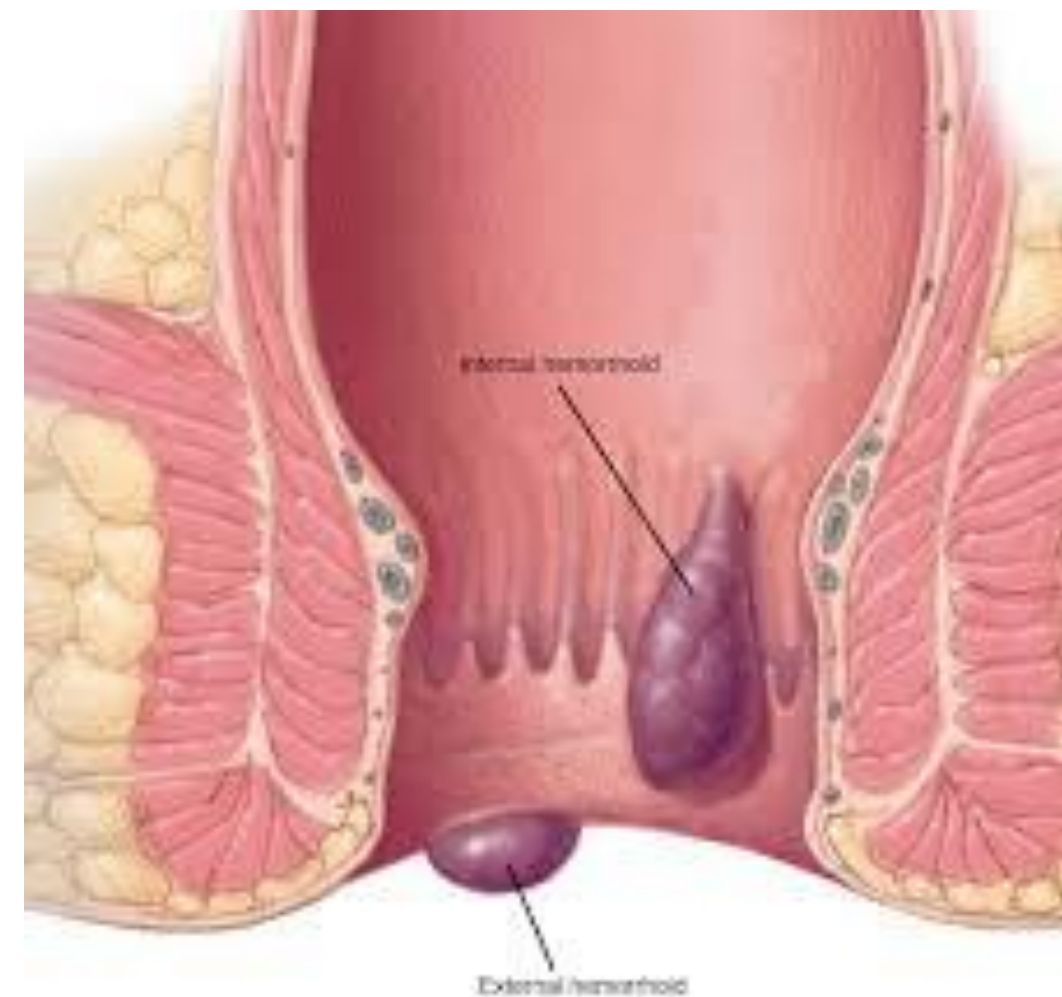
First degree relatives??

Second degree relatives??

Genetic considerations??

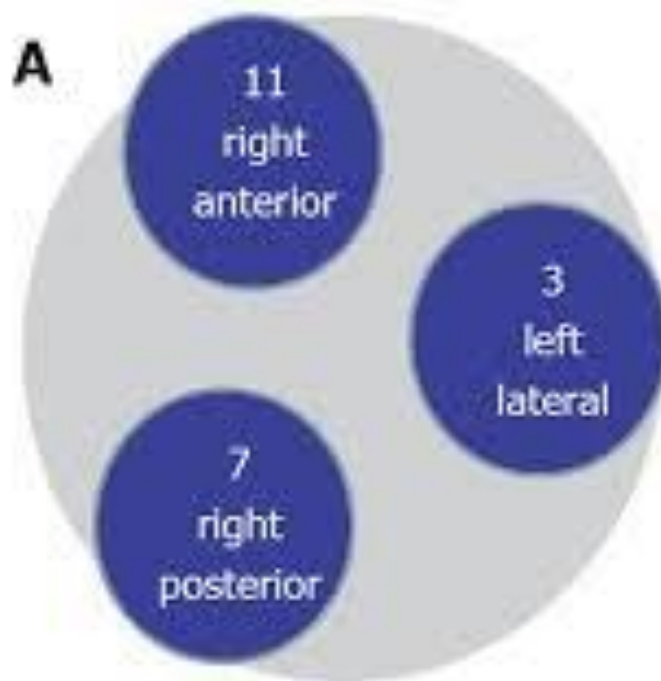
- Benign lesions:

- Hemorrhoids
- Anal fissure
- Diverticulosis
- Angiectasia
- Diverticulitis
- Strictures
- Melanosis coli

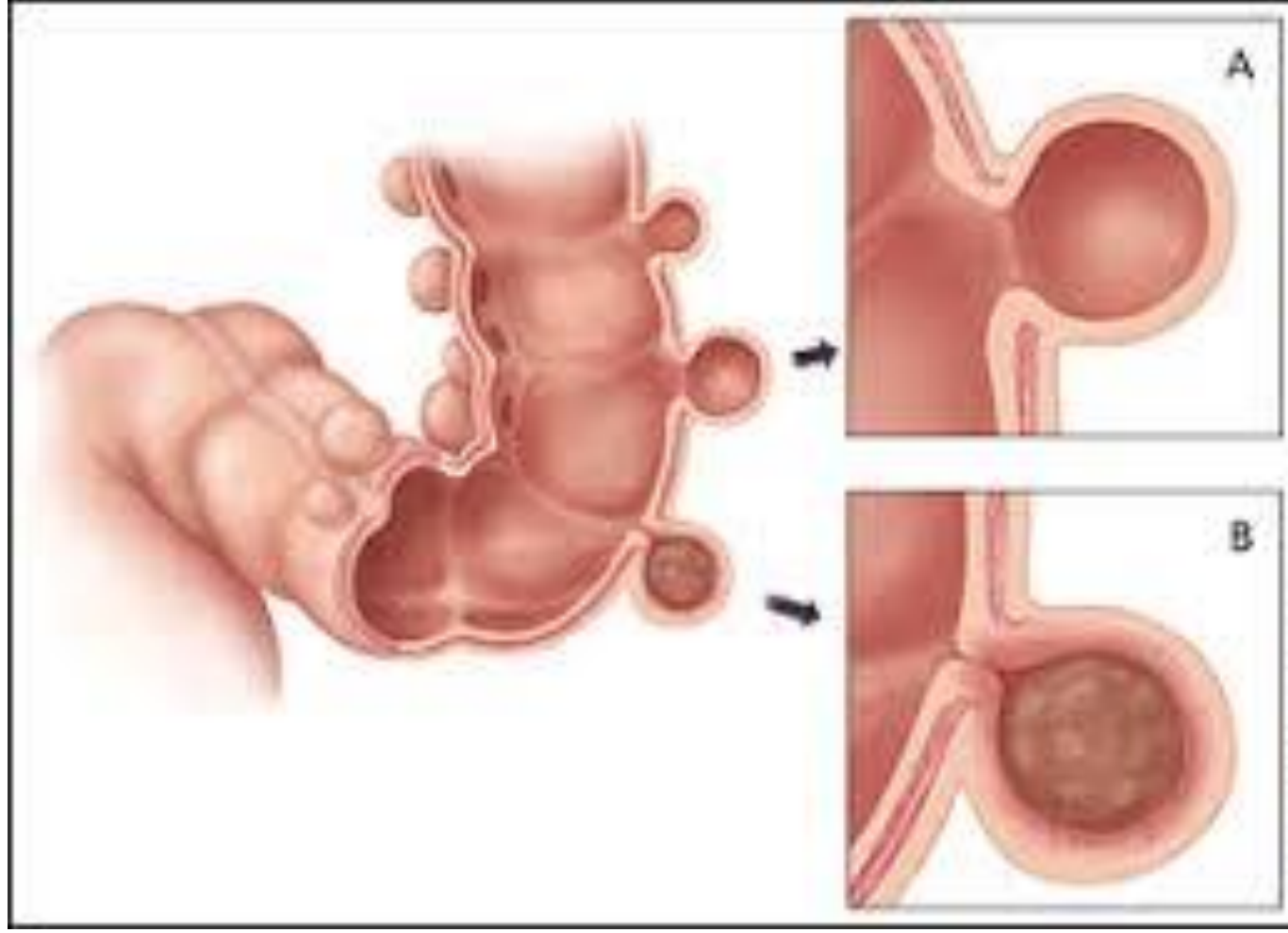


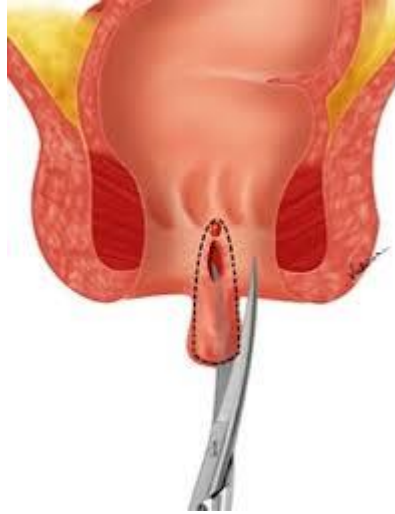
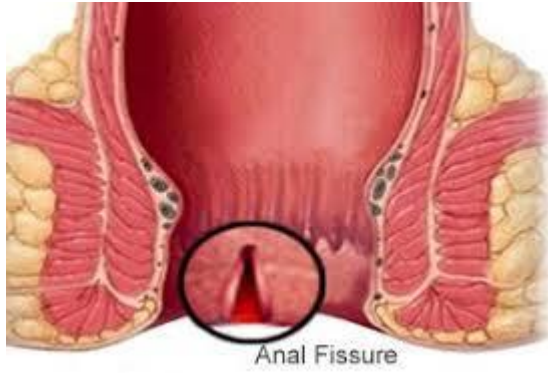


**A**





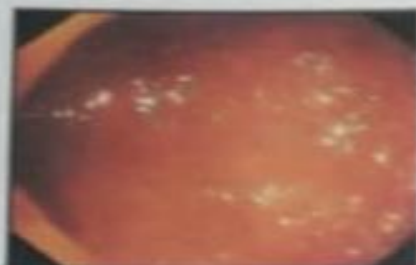




## Report Description:

- Colonoscopy: colon preparation was fair  
one 8mm sessile polyp was seen in transverse colon ; cold snare polypectomy was done

Otherwise, colonoscopy up to terminal ileum was normal.



Terminal Ileum



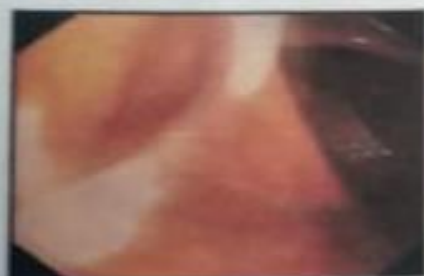
Cecum



Ascending Colon



Transverse Colon



Transverse Colon



Transverse Colon



Transverse Colon



Descending Colon



Descending Colon



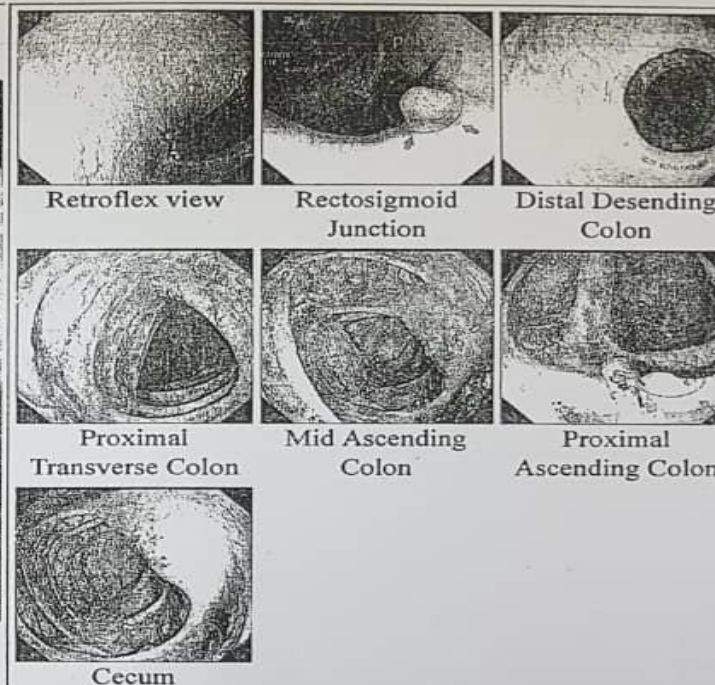
Descending Colon



Sigmoid



Rectum



**Recommendation : W/U =Patholigy ,**

مجلس شورای اسلامی و کمیسیون حقوق اساسی  
روزنامه کیهان - تهران - ۱۳۵۷



