

**#MADEEASY**



**GASTROINTESTINAL  
TRACT: CANCERS  
(PART 2)**





## GASTROINTESTINAL TRACT: CANCERS (Part 2)

**Patient:** Let's continue discussing about intestinal cancers now, doc.  
**Doctor:** We'll start with cancers of the small intestine.

### **Small intestine cancers**

#### **Risk factors**

- **Hereditary syndrome**  
**Familial adenomatous polyposis (FAP):** mutation in APC gene
- **Crohn's disease**
- **Radiation exposure**

**Histological types (similar to gastric tumors: discussed in Part 1)**

#### **Adenocarcinoma**

- **Most common location: Duodenum**
- **On endoscopy: Polypoid or ulcerative lesions**
- **Histologically: show glandular structures with varying levels of differentiation.**

#### **Metastasis:**

- **Infiltrate intestinal wall**
- **Spread to regional lymph nodes**

**GIST (same as gastric cancer)**

#### **Lymphomas**

- **Non-Hodgkin lymphoma: seen in association with Celiac disease.**

#### **Neuroendocrine tumors: Carcinoid tumor**

- **Most common location: Ileum**
- **Arise from Enterochromaffin cells.**

**Doctor:** Now coming to Colorectal cancer, the one you read about.



# Colorectal Cancer



## **Risk factors:**

- **Its incidence increases with age.**
- **Hereditary syndromes**

**Familial adenomatous polyposis (FAP): mutation in APC gene**

**Lynch syndrome/HNPCC: Hereditary non-polyposis colorectal cancer**

- **CEO syndrome**
- **Colon cancer**
- **Endometrial cancer**
- **Ovarian cancer**

## **Inflammatory bowel disease**

- **Crohn's disease**
- **Ulcerative colitis**

## **Dietary factors**

- **Processed meat consumption**
- **Low fibre diet**
- **Obesity**
- **Mostly histologically Adenocarcinoma.**
- **Most common location: Rectum**





# Colorectal Cancer

## **Metastasis**

- **Liver**
- **Lymph nodes**
- **Ovaries: Krukenberg tumor**

## **Diagnostic Techniques**

- **Colonoscopy showing macroscopic features**
- **Polypoid or ulcerous lesion**
- **Annular/ circumferential constricting lesion showing Napkin ring appearance**
- **Fecal occult blood test**
- **Barium enema**



**Patient:** Oh, so this is what The Black Panther had! What about anal cancer? That's where the GIT ends, right?

**Doctor:** Yes, anus is the last part of the gastrointestinal Tract.





# Anal cancer

## **Risk factors**

- **Human Papilloma Virus HPV 16 & 18 (express P16)**
- **Smoking**
- **Anal intercourse**
- **Immunosuppressive states like HIV/AIDS**
- **Majority of anal cancers are histologically Squamous cell cancer.**
- **Macroscopically show ulcerative or nodular lesions**

## **Metastasis**

- **Invades anal wall to adjacent organs**
- **Spreads to regional lymph nodes**

**Doctor:** So, that's it for today, I hope you learnt all you needed to!

**Patient:** Yes, doctor! Thank you for telling me about these cancers.





## Focal Segmental Glomerulosclerosis

- **MCC of nephrotic syndrome in adults**
- **Associated with HIV, HTN and sickle cell anemia.**
- **HIV associated nephropathy findings:**

1. **Tubular cystic lesions**
2. **Visceral epithelial cell hypertrophy**
3. **Glomerular damage**
4. **Non-responsive to steroids**
5. **Poor prognosis**

**Tip to remember:** not a good way but easy to remember than other technical mnemonics: HIV is associated with FSGS as if someone has HIV, they are 'F'ed.

- **Shows effacement of podocytes.**



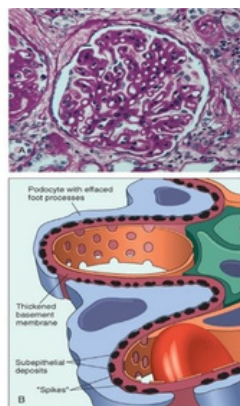


## Membranous Glomerulopathy

- **Elderly**
- **Hepatitis B**
- **SLE**
- **Cancer**
- **MEMBERS** of this group are either too old or too sick to attend the meetings.

### Pathophysiology

- **Autoantibodies against HLA-DQA1 cause damage of the podocyte.**
- **Podocyte effacement --> shows "spike and dome appearance".**
- **Subendothelial deposits**
- **Thick basement membrane**



**Membranous nephropathy.**  
A, Diffuse thickening of the glomerular basement membrane.  
B, Schematic diagram illustrating subepithelial deposits, effacement of foot processes, and the presence of "spikes" of basement membrane material between the immune deposits.





## Secondary causes of Nephrotic Syndrome

- **Systemic lupus erythematosus (SLE)**
- **Diabetes mellitus**
- **Hepatitis B, C**
- **Drugs: NSAIDs**

***Patient:*** Thanks a lot doc for sharing  
your knowledge with me!

