Seminar in IBD
4^{th}&6^{th} Year Students

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Case presentation &Discussion

- A 24 year old female patient presented with loose bowel motion for the last 6 weeks.
- Bowel frequency about 4/day with some blood
- **What points in history are relevant to this case?**

- **Frequency and quantity : it reflects severity, and location of the disease**
- Small bowel : large quantity, pale foul smelling
- Large bowel and rectum: small amount increased in frequency and urgency
- **Presence of Blood** : Inflammatory type diarrhoea
- **Duration of symptoms**: > 4 weeks means Chronic diarrhoea

Chronic diarrhoea :

- **Secretory**: Day and night large amount(OG>125) stool ph high, dehydration, No anemia
- **Osmotic**: only during day time related to ingested food that is not absorbed.(OG<50), stool ph low, no dehydration or Anemia
- The above two can be differentiated with the estimation of Osmotic gab 290 – 2(Na Plus K)

- **Inflammatory diarrhoea**:small amount, Presence of inflammatory cell in stool analysis and or blood with or without systemic features eg fever, arthrlagia, abdominal pain
- There is dehyration, urgency and Anemia, fasting has no effect.
- **Fatty Diarrhoea**: Greasy malodorous stool,

consider it in patients with chronic pancreatitis

- **Ask about** Red flags : weight loss, family history of Ca colon, constitutional symptoms fever, arthralgia& excessive sweating.
- **Ask about** Travel, similar symptoms in the surroundings and drug history

Case- continue

- She works as a teacher, no other symptoms except for urgency and some blood mixed with stool.
- Physical examination was Un remarkable except for pallor.
- **How to investigate her**:

Case - Continue

- **Stool analysis**: for ova, parasite, RBCs, Pus cells, culture, Cl difficile toxins, faecal cal protectine, Stool ph, Na,K
- **CBC ESR CRP ASCA ANCA**
- **KFT,LFT,INR,PTT**
- **Abdominal Xray**

Value of the tests

- **Stool analysis**: to R/O infection, classify diarrhoea
- **CBC ESR CRP**: presence of Anaemia and assess inflammatory markers (platelets can be used as inflammatory marker)
- **ASCA, ANCA** may help to support IBD diagnosis
- **KFT,LFT,INR,PTT**: to assess effect of diarrhoea
- **Abdominal Xray**: to R/O colonic dilatation

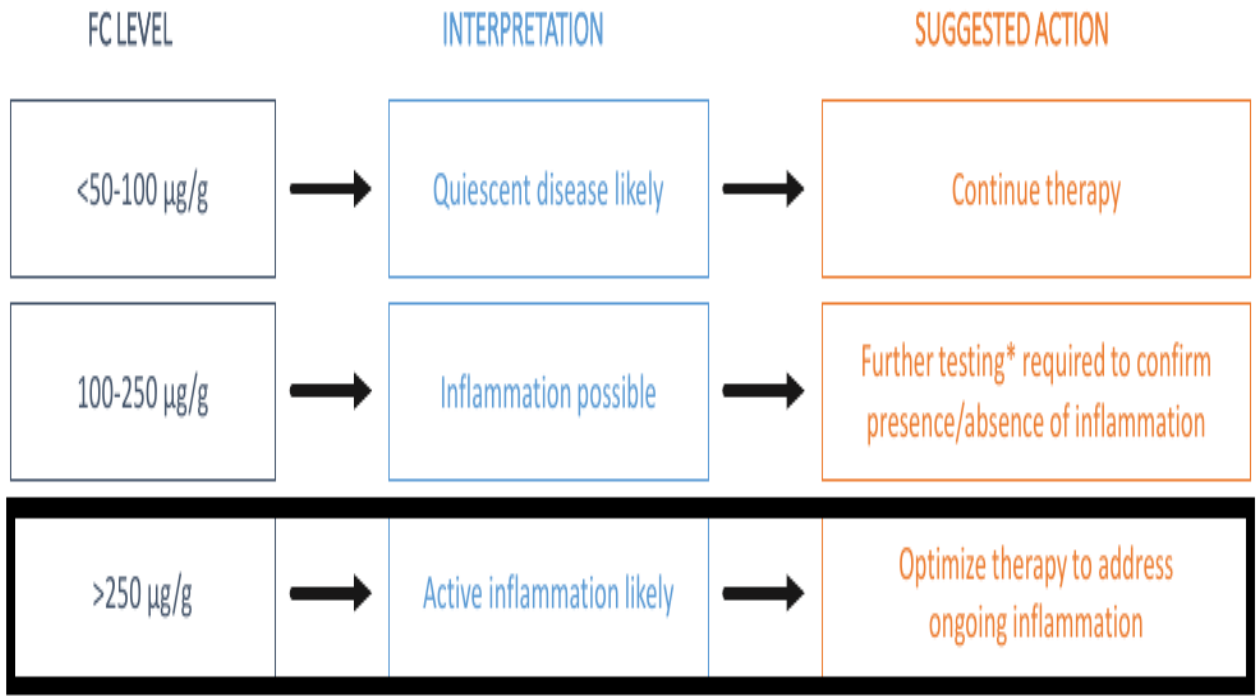
Case - Continue

- **Stool analysis**: Numerous wbcs RBCs NO Ova or parasites
- **Faecal Calprotectin** 500
- **CBC:Hb** 10gm/l **wbc** 9000 **CRP** 60
- **ASCA –ve ANCA +ve**
- **KFT,LFT,INR,PTT:** Normal
- **Abdominal Xray:** Normal

Case - Continue

- **This suggest inflammatory type diarrhoea.**
- Inflammatory cells in stool
- Elevated Faecal calprotectin
- Elevated CRP
- Anemia
- ASCA- ANCA+ suggest UC (see my talk **online)**

Faecal Calprotectin



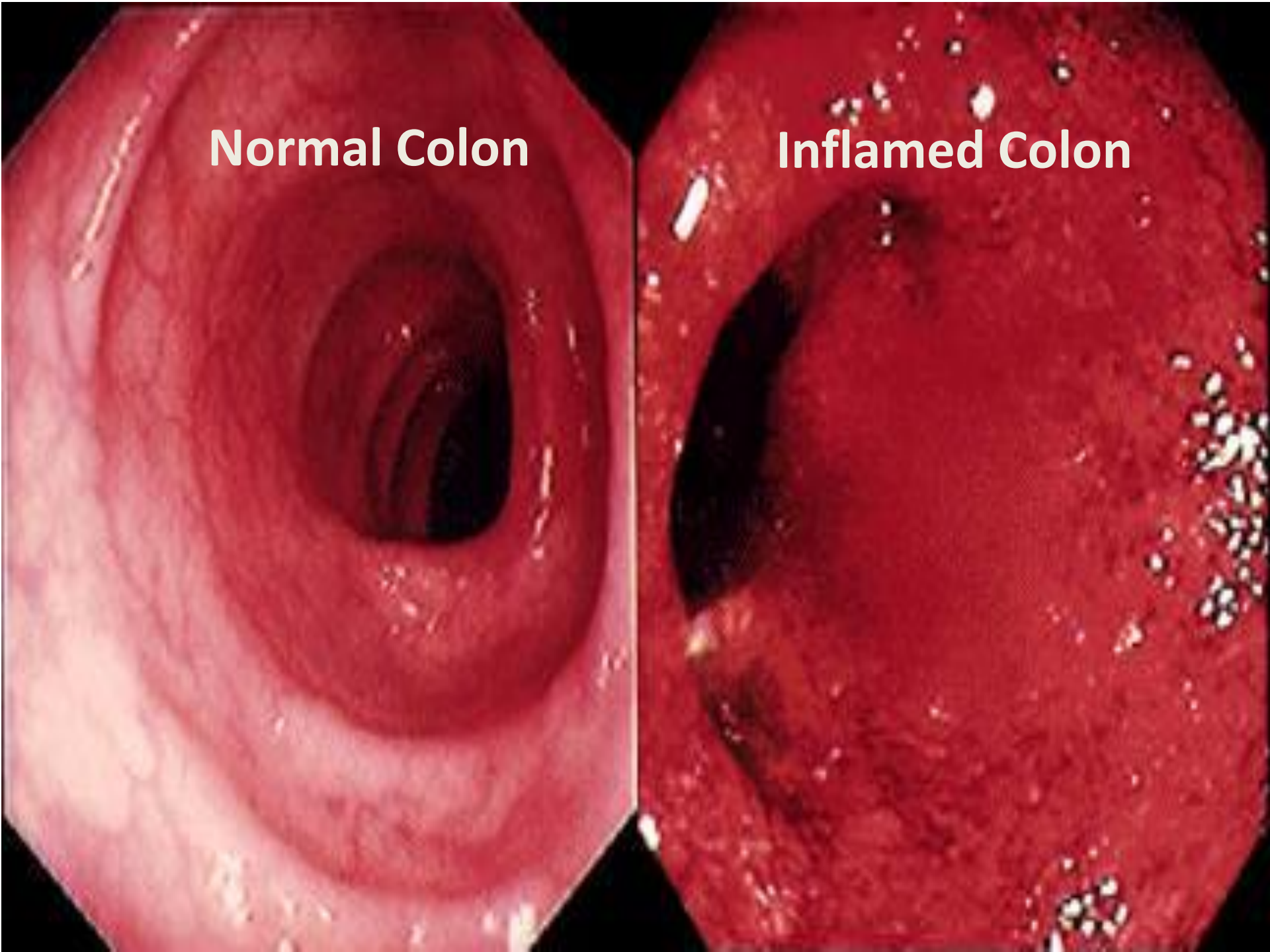
*May include additional FC tests, cross sectional imaging, colonoscopy, or videocapsule endoscopy

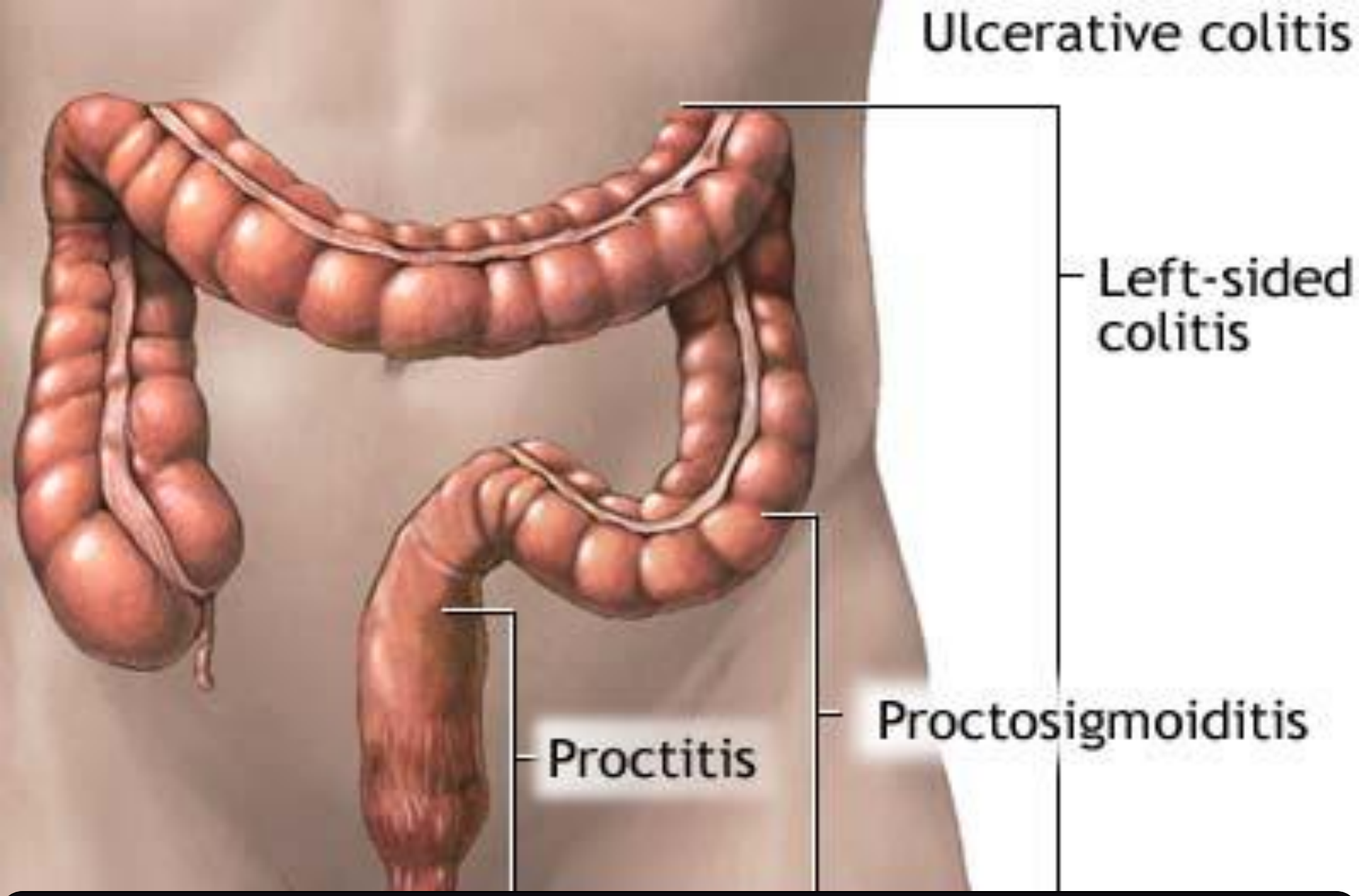
Bressler, B *et al. Gastroenterology* (2015), 148:1035-1058

Case - Continue

- **What is Next:**
- **Colonoscopy:** Inflamation from rectum to proximal sigmoid with ulceration, the Rest of the colon and T ileum normal SEE next pic

Changes are continuous with No skip areas and stop at proximal sigmoid


Normal Colon
Inflamed Colon

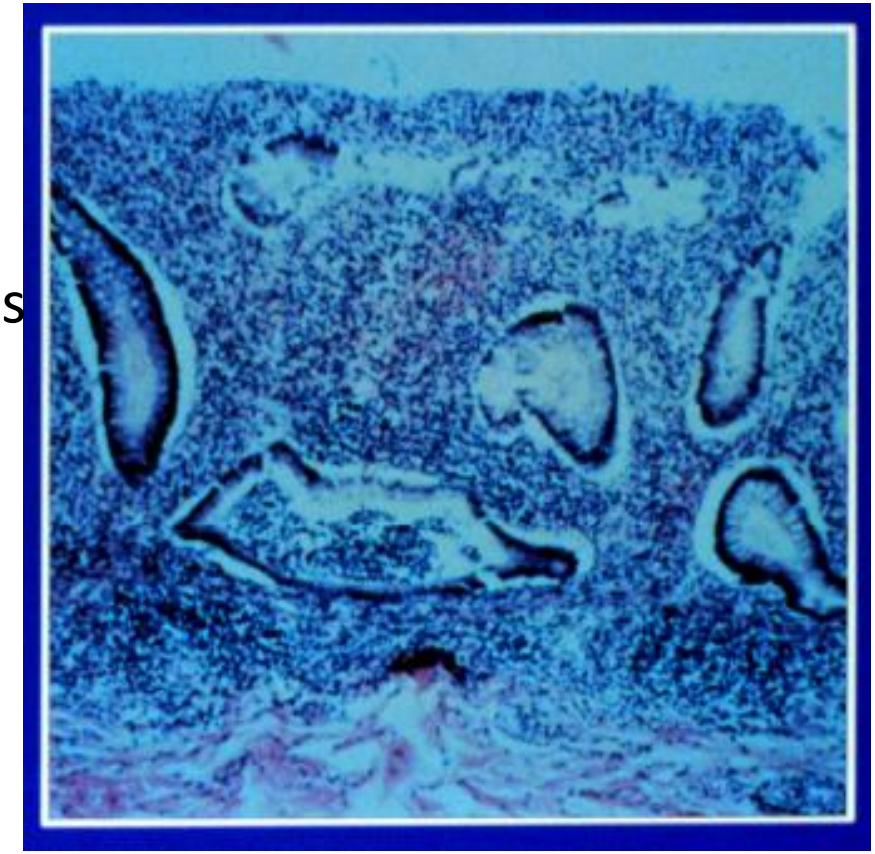


No skip lesions

Severe Ulcerative Colitis

Diagnosis

There is crypt distoration
Cryptitis / crypt abscesses
Lamina propria expansion with
acute and chronic inflammatory cells
There is basal plasma cells
and lymphoid infiltration



Changes limitted to mucosa and sub mucosa

How to Evaluate Severity and Follow Up Treatment

- USE Mayo Scoring System for Assessment of UC Activity
- Used to evaluate patients before and during therapy
- Used to assess response to treatment

Mayo Scoring System for Assessment of UC Activity

Variable	0 Points	1 Points	2 Points	3 Points
Bowel movement (BM) frequency	Normal	1-2 BM > normal	3-4 BM > normal	>5 BM > normal
Rectal bleeding	None	Streaks on stool < 50% BM's	Obvious fresh blood with most BM's	BM's with fresh blood
Endoscopy	Normal	Mild Erythema, ↓ vascularity, Mild friability	Marked erythema, Lack vascular pattern, Friability, Erosions	Severe spontaneous bleeding, Ulceration
Physician Global Assessment (PGA)	Normal	Mild	Moderate	Severe

Case - Continue

- **What is Next:**
- Based on Endoscopic, histopathologic and patient symptoms this is **Moderate Ulcerative Colitis**
- **Management:** As this is distal colitis consider simple Local Therapy

Case - Continue

- **5-ASA (Pentasa, Asacol):** Onset of action 2-6 weeks can be used for induction and maintenance of treatment.
- Enema can reach the splenic flexure which is the best treatment
- Suppositories can be used for rectal disease only or as add on to control urgency and tenesmus in more extended disease

Case - Continue

- **5-ASA (Pentasa, Asacol):** enema is superior to steroid enema
- Steroid enema can be used as add on which increase response.
- In 4-6 weeks if there is no response you can use oral 5 ASA as add on about 4 gm for induction which can be tapered to 2 gms as maintenance.

Case - Continue

- **6 weeks later Patient on oral and local 5 ASA with minimal response?**
- **What to do next?**

Case - Continue

- **Use another Agent to induce Remission?**
- **Steroids:** should be used for induction only and **not** for maintenance.
- **Cortiment:** 9mg for 8 weeks only in mild to moderate cases its effect is less than prednislone
- **Prednislone** 40 mg/day with tapering 5mg/week after response (Response in 1-2 wks)

Case - Continue

- **Hydrocortisone I/V 300mg/d:** can be used in more severe cases or when other treatment proved not to be effective.

Case - Continue

- Patient responded to 40 mg prednislone and maintained on 2-4 gm of 5 ASA
- 6 months later she is back with another attack while on treatment

- **What to do next?**

Case - Continue

- Use another course of steroid to induce remission
- Use Azathioprin/ 6mp for maintenance of remission
- Azathioprin 2mg/kg daily, weekly CBC LFT for 6 weeks to evaluate for Cytopenia or hepatitis, and assess symptoms for possible pancreatitis, then every 1-3 months

Case - Continue

- Used if patient develops 2 flares in 12 months while on standard treatment.
- Takes 12 weeks for onset of action, thus not good for induction of remission, used only for maintenance of remission.
- Takes 16 weeks before labelling it as ineffective.

Case - Continue

- 16 weeks later patient is still symptomatic.
- **What is next?**
- **Biological Agents**
- **Anti TNF: Infliximab, Adalumumab, Golimumab.**
- **Anti- integren antagonist; Vedlozumab**
- **Janus Kinase inhibitors: Tofacitnib**

Case - Continue

- The Choice is based on availability, experience and mode of administration.
- Onset of action is rapid
- Can be used in combination with Azathioprine (infliximab) or alone
- Before administration patient should be infection free, negative test for TB and HBV, received all essential vaccination & no malignancies

Final words

- Duration of treatment: **Long term**
- **Methotrexate** is not effective in UC
- **Surgery** is an option for non responders and patients with complications but can be associated with infertility