IBD Case of the Month:
Extensive ulcerative colitis with worsening clinical symptoms

Developed by the Nurse and Advanced Practice Committee

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Instructions

To begin, please enter into “Presentation mode” to enable full interactivity of case and questions.

When you see words or phrases that are underlined click on the underlined word and this will take you to the next screen.

To continue the presentation make sure you click back in the bottom left corner.

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Objectives

When to use topical therapy vs oral therapy or both
Identify labs needed to further assess need for escalation of therapy
Evaluate for extraintestinal manifestations of active inflammatory bowel disease

Introduction/Background

25 yo female with extensive ulcerative colitis diagnosed in 2009. She was treated with a mesalamine initially at 3.6 g, later increased to 4.8 g daily and noted substantial clinical improvement. Two weeks later noticed an increase in bowel frequency and hematochezia, was then started on budesonide extended release tablets 9mg daily and noticed improvement in symptoms. Reports 2 to 4 bowel movements daily, which are soft in consistency, without nocturnal BMs.

What additional information will be helpful?

Any extraintestinal manifestations of IBD?

- Joint pain?
- Eye redness?
- Oral ulcers?
- Perianal symptoms?
- Skin changes?

Review of Systems (ROS): What is important & why

Notable for fatigue, eye redness, abdominal pain, blood in the stool, back and joint pain, anxiety, memory loss.
A 14-point review of systems is otherwise negative except listed above.

Physical Exam

VITAL SIGNS: blood pressure is 111/76, heart rate is 64, respiratory rate is 18, temperature is 36.7, saturating 97% on room air. Her weight is 82.2 kg and height is 165.1 cm. Her SIBDQ is 49. Her UCCS is 3.
GENERAL: Appears comfortable, NAD
HEENT: Anicteric. EOMs are intact. Oropharynx is clear.
NECK: Supple without supraclavicular or cervical lymphadenopathy.
PULMONARY: CTAB without wheeze.
CARDIOVASCULAR: RRR. No murmurs, rubs or gallops.
ABDOMEN: Positive bowel sounds, soft, nontender and nondistended. No guarding, rebound or mass.
EXTREMITIES: No lower extremity edema.
SKIN: No rash.

Previous Workup

1. Colonoscopy February 2009, normal terminal ileum, inflammation extending from the cecum to the distal transverse colon, normal sigmoid and descending colon. There was evidence of rectal erythema and focal hemorrhage. Biopsies show normal terminal ileum biopsies. There is acute and chronic inflammation from the cecum through the distal transverse colon. Biopsies from the descending and sigmoid colon showed nonspecific change and biopsies from the rectum showed acute and chronic inflammation.
2. Retrograde ileoscopy June of 2009, there was no evidence of small bowel polyp. Endoscopically, colon was felt to have the appearance of Mayo score of 1. Biopsies from the cecum, right, transverse, descending, sigmoid and rectum showed acute and chronic inflammation.
3. Video capsule endoscopy May of 2009, distal ileal polyp, subsequent video capsule endoscopy in January 2010 normal.
4. Upper GI endoscopy July 2010, normal. Biopsies showed duodenal mucosal fragments without pathologic change. Mild chronic gastritis.
5. Colonoscopy January 2012, normal terminal ileum, possible decreased vascular pattern at the colon. Random colon biopsies show chronic ulcerative colitis quiescent without dysplasia. Biopsies from the descending colon showed moderate active colitis without dysplasia. Biopsies from the rectosigmoid showed chronic ulcerative colitis quiescent without dysplasia.
6. Colonoscopy July 2015. The appearance was consistent with ulcerative proctitis with a normal colon proximal to 20 cm and normal terminal ileum. Random colon biopsy showed histologically unremarkable mucosa. Colon biopsy showed chronic proctitis with moderate activity. There is architectural distortion, basal plasmacytosis. No evidence of dysplasia.

Do you have red flags/cause for concern based on physical exam & previous workup?

No concern
Minimal concern
Significant concern
Major concern indicating need for admission

Do you have a Differential Diagnosis?

Celiac sprue
Infectious colitis
Microscopic/collagenous colitis
Irritable Bowel syndrome

What would be ordered for workup?

Labs/Stool studies:

- CBC
- CMP
- CRP-HS
- Iron studies
- Fecal calprotectin
- Clostridium difficile/adenovirus
- TTG IgA, IgA (to screen for celiac disease)

Additional labs to consider

Baseline IBD labs if escalation of therapy is warranted in the future:

- CBC
- CMP
- CRP-hs
- Iron studies
- Hepatitis serologies (HBsAB, HBsAG, HB core total, HCV ab, HAV ab)
- QuantiFERON Gold
- Thiopurine methyltransferase activity

Laboratory Results

CBC – unremarkable

CMP - unremarkable

- Creatinine 0.63
- BUN 12

CRP – HS 4.1 (h)

Ferritin 4 (low)

TTG IgA 3 (nl)

IgA, 148 (nl)

C.diff/adeno – negative

Fecal calprotectin 1156 (h)

What is your Diagnosis?

1. Extensive ulcerative colitis with worsening clinical symptoms despite oral mesalamine 4.8 g daily, now clinically improved on oral mesalamine in combination with topical mesalamine enemas and budesonide extended release tablets.
2. Joint pain, suspect a component of enteropathic arthritis.

What is your plan of care?

Remain on oral mesalamine at a dose of 4.8 g daily.

- She noted 2 to 4 bowel movements per day with hematochezia and joint pain.
  - Joint pain, a extraintestinal manifestation of IBD, is most likely secondary to active inflammation. A referral to rheumatology is not warranted at this time given her active disease.

    Initiation of topical mesalamine enemas and subsequent addition of topical steroid to a clinical regimen.
  - The mechanism of action of oral 5-ASA therapies, with relatively lower concentration of the medication at the rectum. As she has more active rectal disease, an oral mesalamine compound in combination with a topical rectal therapy will be more effective than an oral therapy alone.

Follow up visit

The symptoms of joint pain and hematochezia resolved completely with initiation of mesalamine enemas and subsequent addition of budesonide extended release tablets to a clinical regimen.

Summary

This 25-year-old female with extensive ulcerative colitis as noted by clinical, biochemical and endoscopic markers of inflammation. She was on maintenance therapy with mesalamine (Lialda®) 4.8 g daily. With ongoing clinical symptoms and endoscopic activity noted in the rectum, topical mesalamines in addition to oral therapy was warranted to better control her disease. She is clinically improved. She no longer notices melena or hematochezia. Her bowel movements are more formed in consistency. It appears that she has been responsive to topical 5-ASA therapies.

Thank you!

We hope you enjoyed this case. Check back next month for a new case!
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Joint Pain

Joint pain started approx. 3 wks ago, coincident with worsening of her bowel symptoms. Pain localized to right knee, foot and thigh and has been improved previously with use of prednisone.

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Eye redness

She has been evaluated for eye redness in the setting of active bowel symptoms in the past. She is not clear what her diagnosis was at that time, but it was thought related to her inflammatory bowel disease.

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Oral ulcers

Denies history of oral ulcers

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Perianal symptoms

Denies history of perianal symptoms

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Skin changes

Denies history of skin changes

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No Concern

Incorrect:
She has evidence of extensive ulcerative colitis based on endoscopic evaluation and histology. By most recent evaluation in July 2015, persistent disease activity was noted at the rectum with inactive disease more proximally. She has clinical symptoms of active disease. There should be some concern for this.

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Minimal Concern

Correct:
She has evidence of extensive ulcerative colitis based on endoscopic evaluation and histology. By most recent evaluation in July 2015, persistent disease activity was noted at the rectum with inactive disease more proximally.
She has clinical symptoms of active disease

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Significant Concern

Incorrect:
Endoscopic activity: The ascending colon was graded as Mayo Score 1 (mild, with erythema, decreased vascular pattern, mild friability) and remainder of the colon Mayo 0
Laboratory values: elevated biochemical markers of inflammation. Normal albumin.
No weight loss

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Major Concern Indicating Need for Admission

Incorrect:
No weight loss, no fever, vital signs stable, and no laboratory data to support need for admission.

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Celiac Sprue

Celiac sprue
- Serological workup: negative TTG IgA and Immunoglobulin A
- Histological workup: negative duodenal biopsies with upper GI endoscopy

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Infectious colitis

Infectious colitis
- Stool studies for **Clostridium difficile** negative

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Microscopic/collagenous colitis

Microscopic/collagenous colitis
- Lower GI endoscopy biopsies negative July 2015

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Irritable Bowel Syndrome

Endoscopic disease activity was present consistent with ongoing clinical complaints
Biochemical markers were elevated in relation to active endoscopic activity.
Hematochezia present consistent with endoscopic disease activity.

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Short Inflammatory Bowel Disease Questionnaire (SIBDQ)

Health-related quality of life (HRQoL) tool measuring physical, social and emotional status - score 10-70, poor to good HRQoL
Reproducible and responsive to changes in disease activity

Jowett,S.L., Seal C.J., Barton J.R., Welfare, M.R, The American Journal of Gastroenterology. 2001.

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Ulcerative Colitis Clinical Score (UCCS)

Outcome measure
Also known as modified Mayo Score.
Assess disease activity in ulcerative colitis, score of 0-3 (none to severe) in each category

- Stool frequency
- Rectal bleeding
- Physician global assessment

**The mucosal appearance at endoscopy is not included in the UCCS.*

Lewis et al. *Inflammatory Bowel Disease*. 2008.

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Mayo Score

- Disease Activity Index (DAI)
- Assess disease activity in Ulcerative colitis
  - Stool frequency
  - Rectal bleeding
  - **Endoscopic evaluation ***
  - Physician global assessment

Lewis et al. *Inflammatory Bowel Disease*. 2008.

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