A Curious Case of Colitis

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Introduction

Segmental colitis associated with diverticulosis (SCAD) is chronic colitis isolated to areas with diverticulosis and is a distinct entity from inflammatory bowel disease (IBD). Distinguishing between these diseases can be difficult due to overlapping clinical symptoms (e.g. rectal bleeding, diarrhea, and abdominal pain), endoscopic findings, and histopathology features.

Case Presentation

HPI:
69F with diverticulosis and sigmoid stricture presented to GI clinic with chronic 5-6 bloody bowel movements/day and lower abdominal pain.

PMH:
- Obesity
- Insulin-dependent type 2 diabetes mellitus
- Hypothyroidism

Social History:
- Reports 1 drink/ 2-3 months
- Retired civil engineer

Clinical Timeline

2016

• Initial GI Referral
- ***Endoscopy:*** Mucosal hypertrophy and erythema surrounding diverticula, consistent with SCAD. Limited exam beyond 25cm due to stricture .
- ***Plan:*** 10-day course of Ciprofloxacin and Metronidazole. Start Mesalamine.

2018

• Symptomatic Flare
- ***Endoscopy:*** Unremarkable. Unable to pass stricture.
- ***Lab:*** Fecal calprotectin 1318 (H)
- ***Plan:*** Titrate up mesalamine dose and frequency.

2020

• No Symptomatic Resolution
- ***Endoscopy:*** Severe edema. Again, unable to pass stricture.
- ***Plan:*** Budesonide trial

• Budesonide Taper Intolerance
- Taper attempts precipitate symptomatic exacerbations.

2021

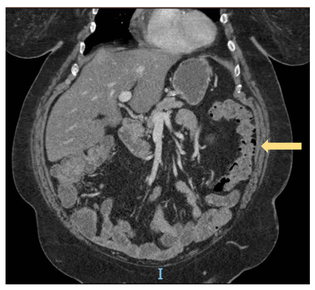
• Elective Partial Colectomy
- With end colostomy and Hartmann pouch
- ***Histopathology:*** Moderate chronic colitis with dense lymphoplastic infiltrates.

2022

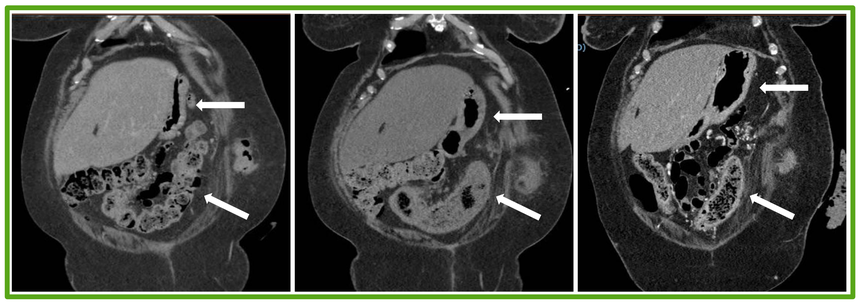
• ICU Admission
- ***HPI:*** High-ostomy output c/b hypovolemic shock.
- ***Labs:*** Negative infectious work-up.
- ***Imaging:*** CT abd/pelvis reveal transverse colitis.
- ***Endoscopy (via stoma):*** Mucosal inflammation with pseudopolyps. Acute and chronic inflammation on biopsy.

• Re-Admission
- ***HPI:*** Skin lesion c/f pyoderma gangrenosum; Development of enterocutaneous fistula.
- ***Skin lesion biopsy:*** Pyoderma gangrenosum
- ***Plan:*** High-dose steroids and Infliximab initiation.

CT Imaging

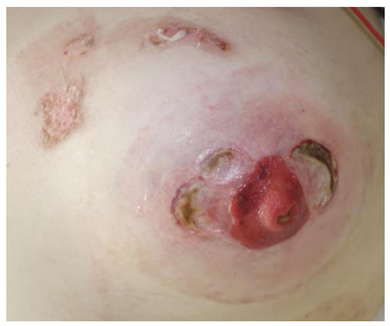


2020: Prior to Resection
Unremarkable with exception of diffuse colonic diverticulosis (indicated by yellow arrow). No findings supportive of IBD.

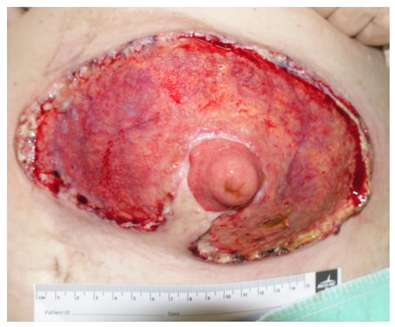


2022: Pre-ICU Admit **ICU Admit (2 mo)** **Re-Admit (3 mo)**
Timespan of 3 months demonstrates progression of wall thickening and loss of haustration involving the transverse colon as indicated by the white arrows.

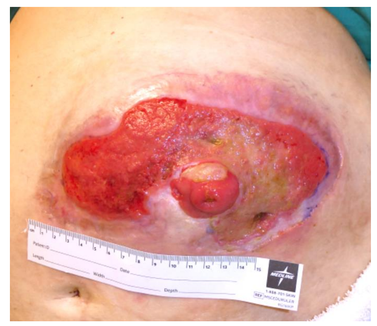
Pyoderma Gangrenosum Progression



2022: Discharge from ICU
Scattered ulcers believed to be skin breakdown from ostomy bag leak due to increased ostomy output.

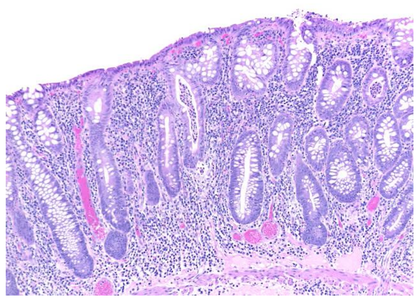


Re-Admit (2 wks)
Presented for a nursing visit for ostomy management with 20cm shallow ulcer with red granulation tissue base, fibrin rim, and undermined pink-purple violaceous border.



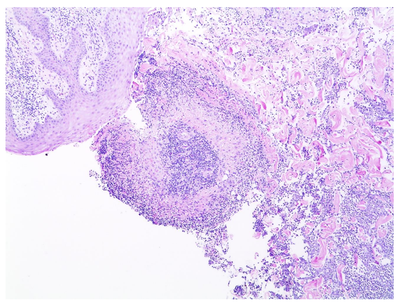
Post-Discharge (4 mo)
Months following high-dose steroids and regularly scheduled infliximab infusions, wound edges have granulated well, and overall size has decreased.

Histology



Resected Rectosigmoid Colon
Colon mucosa exhibits features of moderately active chronic colitis, including increased lymphoplasmacytic lamina propria inflammation, crypt architectural distortion, truncation and neutrophilic crypt abscesses.

Special thank you to Eric Goranson, MD for histology reading and images.



Abdominal Skin Ulcer Biopsy
Peristomal ulcer border biopsy reveals characteristics of pyoderma gangrenosum including focal necrotizing small-to-medium vessel vasculitis, basophilic degeneration, and prominent dermal acute and chronic inflammation.

Special thank you to Kristin Shaw, MD for histology reading and images.

Discussion

- This patient's case raised the question of whether she was misdiagnosed with SCAD or whether her SCAD evolved into IBD.
- **Debate 1:** SCAD is an independent clinical entity from IBD. SCAD has isolated inflammation to areas of diverticula, a benign natural course with low relapse rate, and low likelihood of requiring maintenance therapy.
- **Debate 2:** SCAD is on the IBD spectrum. SCAD shares similar IBD inflammatory pathophysiology caused by mucosal prolapse, disturbed flora, and increased exposure to toxins and antigens.
- No definitive clinical symptom, endoscopic lesion, or histopathology feature throughout this case differentiated IBD from SCAD until her development of pyoderma gangrenosum.
- Pyoderma gangrenosum is a common cutaneous IBD extra-intestinal symptom due to cross-reacting antigens between bowel and skin.
- Given that pyoderma is *not* correlated with inflammation severity, her case may support SCAD and IBD as distinct entities.

Teaching Points

- SCAD and IBD may have many overlapping clinical presentations but are distinct entities.
- Patients who develop of IBD-associated extra-intestinal symptoms (e.g. pyoderma gangrenosum) strongly suggests an underlying IBD diagnosis.

References

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