SURGICAL PATHOLOGY REPORT [SYNTHETIC]

ACCESSION #: UC-2025-29689
DATE OF PROCEDURE: 04/19/2025
DATE OF REPORT: 04/23/2025
REQUESTING PHYSICIAN: Dr. Leah Frederick, Gastroenterology
PATHOLOGIST: Dr. Dominique George, Anatomic Pathology

CLINICAL HISTORY:

47 year old male with 2 week history of bloody diarrhea, abdominal pain, and urgency. Colonoscopy showed mild erythema and granularity limited to rectum and sigmoid colon. Clinical suspicion for ulcerative colitis.

SPECIMEN RECEIVED:

A. Rectum, biopsy

B. Sigmoid colon, biopsy

C. Descending colon, biopsy

D. Transverse colon, biopsy

E. Ascending colon, biopsy

F. Terminal ileum, biopsy

GROSS DESCRIPTION:

A. Received in formalin labeled "rectum" are 6 tan-pink tissue fragments measuring 5 mm in aggregate.

B. Received in formalin labeled "sigmoid colon" are 2 tan-pink tissue fragments measuring 3 mm in aggregate.

C. Received in formalin labeled "descending colon" are 2 tan-pink tissue fragments measuring 5 mm in aggregate.

D. Received in formalin labeled "transverse colon" are 3 tan-pink tissue fragments measuring 4 mm in aggregate.

E. Received in formalin labeled "ascending colon" are 4 tan-pink tissue fragments measuring 5 mm in aggregate.

F. Received in formalin labeled "terminal ileum" are 2 tan-pink tissue fragments measuring 8 mm in aggregate.

All specimens are entirely submitted in 4 cassette(s).

MICROSCOPIC DESCRIPTION:

A. Rectal mucosa shows severe active chronic inflammation with crypt architectural distortion, lamina propria plasma cells, and basal plasmacytosis. The inflammatory process is limited to the mucosa without evidence of granulomas. Reactive epithelial changes are seen adjacent to areas of active inflammation. Focally, the colonic epithelium shows nuclear enlargement, hyperchromasia, and architectural complexity suspicious for low-grade dysplasia. Terminal ileal mucosa shows mild active inflammation with neutrophilic cryptitis, likely representing backwash ileitis.

B. Sigmoid colonic mucosa shows severe active chronic inflammation with crypt branching, crypt atrophy, and focal crypt abscesses. The inflammatory process is limited to the mucosa without evidence of granulomas. Marked decrease in goblet cell population.

C. Descending colonic mucosa shows mild to moderate active chronic inflammation with diffuse neutrophilic cryptitis, crypt abscesses, and epithelial injury. The inflammatory process is limited to the mucosa without evidence of granulomas. Mucosal edema and congestion are present.

D. Transverse colonic mucosa shows moderate active chronic inflammation with diffuse crypt architectural distortion, crypt abscesses, and goblet cell depletion. Reactive epithelial changes are seen adjacent to areas of active inflammation.

E. Ascending colonic mucosa shows mild active chronic inflammation with crypt architectural distortion and crypt abscesses. Reactive epithelial changes are seen adjacent to areas of active inflammation. The inflammatory pattern shows overlapping features of both ulcerative colitis and Crohn's disease. Areas of crypt dropout and lamina propria fibrosis are present, suggesting chronicity and possible treatment effect.

F. Terminal ileal mucosa shows minimal increase in lamina propria lymphoplasmacytic infiltrates, likely reactive. No evidence of chronic inflammatory bowel disease identified in this section. In addition to the chronic inflammatory changes, there are numerous neutrophils and pseudomembranes suspicious for superimposed Clostridioides difficile infection.

DIAGNOSIS:

A. Rectum, biopsy:

- severe active chronic colitis with crypt architectural distortion and goblet cell depletion
- Changes consistent with chronicity and treatment effect
- Focal low-grade dysplasia identified
- severe consistent with ulcerative colitis
- No dysplasia identified
- No evidence of cytomegalovirus (CMV) infection

B. Sigmoid colon, biopsy:

- severe active chronic colitis with crypt architectural distortion and goblet cell depletion
- severe consistent with ulcerative colitis
- No dysplasia identified

C-E. Descending, transverse, and ascending colon, biopsies:

- mild to moderate active chronic colitis with crypt architectural distortion
- Mild active ileitis, consistent with backwash ileitis in the setting of ulcerative colitis
- Features suggestive of superimposed Clostridioides difficile infection
- Features consistent with ulcerative colitis
- No dysplasia identified

F. Terminal ileum, biopsy:

- Mild non-specific inflammation
- Features of chronicity consistent with inflammatory bowel disease, with overlapping features of both UC and CD
- No evidence of inflammatory bowel disease

COMMENT:

The histologic findings show a pattern of continuous chronic active colitis with greatest severity in the distal colon and rectum, with relative sparing of the proximal colon. The absence of granulomas, transmural inflammation, and terminal ileal involvement are features favoring ulcerative colitis over Crohn's disease. Correlation with clinical, endoscopic, and radiologic findings is recommended for definitive classification. The presence of diffuse crypt architectural distortion, basal plasmacytosis, and continuous inflammatory pattern strongly supports the diagnosis of ulcerative colitis. The presence of low-grade dysplasia warrants close clinical follow-up and surveillance colonoscopy according to established guidelines for

IBD-associated dysplasia. The histologic features suggestive of superimposed Clostridioides difficile infection should be correlated with clinical presentation and stool testing. The histologic findings show overlapping features of both ulcerative colitis and Crohn's disease. This pattern may represent an 'indeterminate colitis' and correlation with clinical, endoscopic, and serologic markers is strongly recommended for further classification. The mild ileal inflammation in the context of pancolitis is consistent with backwash ileitis, which can be seen in ulcerative colitis and does not necessarily indicate Crohn's disease. Histologic features suggesting chronicity and treatment effect are present. Correlation with treatment history is recommended.

SPECIAL STUDIES:

Grocott's methenamine silver (GMS) stain is negative for fungal organisms. p53 immunohistochemical stain shows focal overexpression in areas of dysplasia. Gram stain highlights numerous gram-positive bacilli morphologically consistent with Clostridioides difficile.