The Cecal Patch is Associated with a Greater Prevalence of Symptoms in Patients with Ulcerative Colitis

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Background

The cecal patch is defined as the discontinuous involvement of the cecum in patients with otherwise left-sided ulcerative colitis (UC); see Figures 1 and 2. Several studies have failed to show consistent clinical differences between UC patients with and without a cecal patch. Also, the reported prevalence of the cecal patch varies widely.

Purpose

We designed this study to determine whether patients with a cecal patch have a different prevalence of symptoms, including rectal bleeding, diarrhea, and abdominal pain, compared to UC patients without a cecal patch. A secondary aim was to calculate the prevalence of the cecal patch in a large population of patients with established UC.

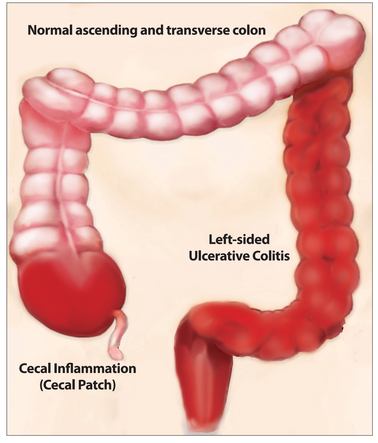

Figure 1. Example of a frequently encountered distribution of disease in UC with cecal patch.

Study Setting

Miraca Research Institute, part of Miraca Life Sciences, is a specialized gastrointestinal pathology laboratory that receives specimens from gastroenterologists operating in private outpatient endoscopy and surgery centers across the U.S. All demographic, histopathologic, endoscopic, and clinical information is stored in a searchable SQL database.

Patients and Controls

Using the Miraca Database, we extracted histopathologic, demographic, clinical, and endoscopic information from all patients with a clinicopathologic diagnosis of UC made between 1.1.2008 and 12.31.2011. The database was then queried for patients with a cecal patch, defined as the histologically documented, simultaneous presence of chronic colitis in the cecum or ascending colon and in the distal colon, in the absence of colitis in the intervening colon. Parametric and non-parametric statistical tests and odds ratios were used to compare groups.

Results

There were 932,735 unique patients (median age 60 y; 50% F) with colonic biopsies. UC was diagnosed in 17,376 patients (1.9%); 576 (3.3%) of these met the criteria for a cecal patch. Patients with a cecal patch (median age 40 y vs. 50 y, p<0.001) were younger than the 16,800 without; they were more likely to be male (56.4%; OR 1.23 95%CI 1.04-1.45; p<.02). Significantly fewer patients with a cecal patch underwent colonoscopy (see table) for UC surveillance only (22% vs. 33%; OR 0.58 95% CI 0.47-0.70; p<.0001); in contrast, rectal bleeding (50% vs. 34%; OR 1.86 95% CI 1.58-2.20; p<.0001), diarrhea (35% vs. 21%; OR 1.98 95% CI 1.66-2.36; p<.0001) and abdominal pain (12% vs. 8%; OR 1.49 95% CI 1.14-1.93; p<.05) were significantly more common in patients with a cecal patch. Terminal ileitis (likely "backwash ileitis") was also more prevalent in cecal patch patients than in controls (15% vs. 9%; OR 1.86 95% CI 1.24-2.79; p<.05). The cecal patch was described in accompanying endoscopic notes in only 4 of 576 patients with a histologically documented patch (0.7%) and was specifically mentioned in the pathology report in 104 patients (18.2%).

Indication for Colonoscopy	Cecal Patch Patients n = 576	Non Cecal Patch Patients n = 16,800	OR (95% CI)
Surveillance	128 (22.2%)	5,564 (33.1%)	0.58 (0.47-0.70)
Abdominal pain	66 (11.5%)	1,346 (8.0%)	1.49 (1.14-1.93)
Rectal bleeding	285 (49.5%)	5,785 (34.4%)	1.86 (1.58-2.20)
Diarrhea	201 (34.9%)	3,576 (21.3%)	1.98 (1.66-2.36)

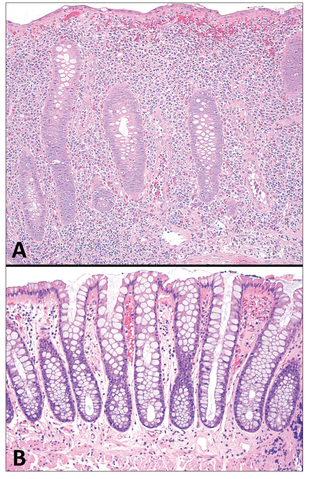

Figure 2. Typical histologic features of UC with cecal patch.

A. Chronic active colitis with cryptitis, dense lymphoplasmacytic inflammation, and architectural distortion, seen in both the cecum and the left colon/rectum.

B. Intervening histologically unremarkable colonic mucosa.

Study Highlights

- This is the largest study to date to examine the cecal patch in ulcerative colitis (UC), and includes data from almost 18,000 UC patients.
- The cecal patch was found to have a prevalence of 3.3%, a figure at the low end of the previously reported range.
- The cecal patch was more common in younger patients and in males.
- Significantly fewer patients with a cecal patch underwent colonoscopy for UC surveillance only.
- The cecal patch was associated with a significantly greater prevalence of symptoms, namely:
  - Abdominal pain
  - Rectal bleeding
  - Diarrhea
- Backwash ileitis was more common in cases with a cecal patch than in controls.
- Knowledge of these data may prompt endoscopists to more carefully search for a cecal patch in the proper clinical setting.

References

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