Case Reports and Reviews

Case Report


# Not Your Typical Rash: A Case of Cutaneous Crohn's Disease Without Intestinal Involvement

**Bradley Schuler[1], Melanie Vargas[2], Jacqueline Nguyen[1], Charlotte Chaiklin[3]**

[1]*Department of Medicine, University of Florida, FL, USA*
[2]*Department of Anesthesiology, University of Florida, FL, USA*
[3]*Division of General Internal Medicine, University of Florida, FL, USA*

Correspondence

**Charlotte Chaiklin**
Division of General Internal Medicine, University of Florida , 1329 SW 16th St, Suite 5140 Gainesville, FL 32608 FL, United States.

Email: cchaiklin@ufl.edu

- Received Date: 23 Sep 2024
- Accepted Date: 03 Oct 2024
- Publication Date: 05 Oct 2024



## Background

Crohn's disease (CD) is a granulomatous inflammatory bowel disease (IBD) that primarily affects the gastrointestinal (GI) system. It is estimated that half of patients with CD will experience cutaneous manifestations of the disease [1]. One rare form of skin involvement includes cutaneous metastatic CD (MCD) [1].

## Objective

We report a case of cutaneous MCD without intestinal involvement in an older patient.

## Background

A 71-year-old woman with a history of a cecal perforation after bowel preparation for a routine screening colonoscopy status post end ileostomy and subtotal colectomy, iron deficiency anemia, hysterectomy, recently diagnosed colovaginal fistula with resulting total parental nutrition (TPN) dependence, and bilateral lower extremity venous thromboembolism presented with intractable pain in the setting of a worsening erythematous intertriginous rash of the anterior abdomen and labia for the last few months. She reported using topical antifungal therapy at home without improvement of symptoms and ultimately was admitted to an outside hospital where she received a two-week course of micafungin therapy in addition to topical nystatin therapy for presumed extensive cutaneous candidiasis with little improvement of symptoms. She was a lifetime non-smoker and denied alcohol or recreational drug use.

Upon initial presentation, her vital signs were normal and laboratory findings were significant for a hemoglobin of 9.2 gm/dL and an albumin of 2.9 gm/dL. Computed tomography (CT) imaging revealed the sigmoid colon tethered to the vaginal cuff with intracavitary air favored to represent a colovaginal fistula. A punch biopsy of her right and left abdominal pannus revealed dermal and subcutaneous diffuse mixed inflammation with

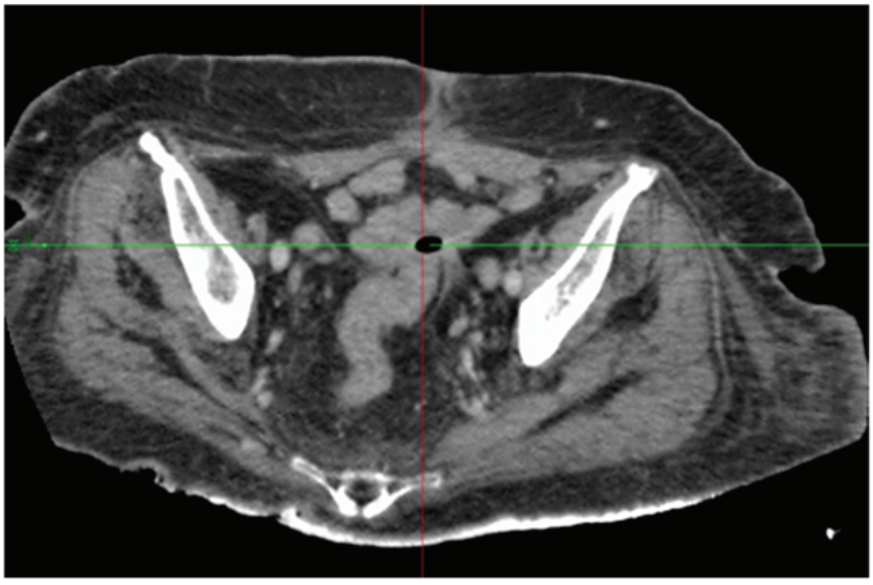

***Figure 1.*** *Axial view of the patient's colovaginal fistula on CT imaging*

Citation: Schuler B, Vargas M, Nguyen J, Chaiklin C. Not Your Typical Rash: A Case of Cutaneous Crohn's Disease Without Intestinal Involvement. Case Rep Rev. 2024;4(2):43

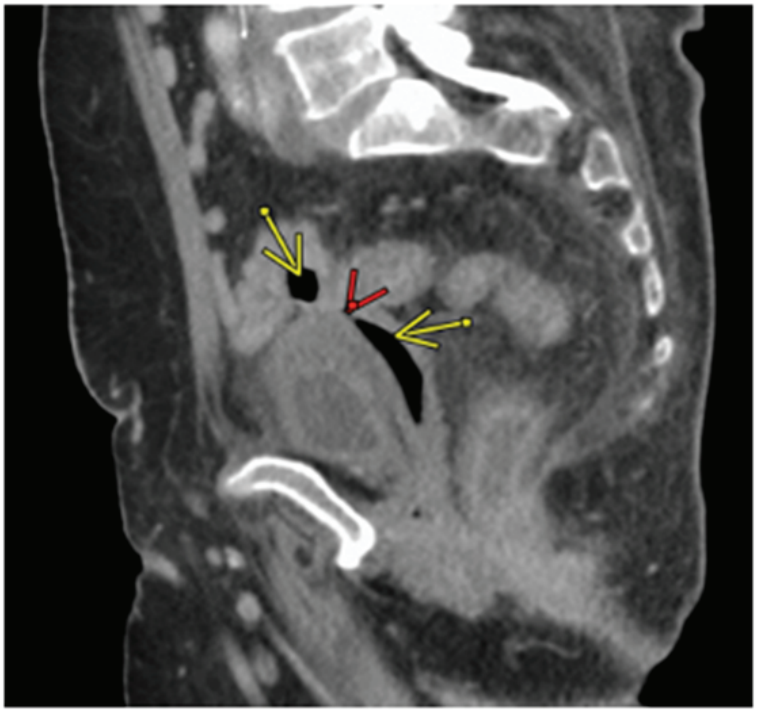

***Figure 2.*** *Sagittal view of the patient's colovaginal fistula on CT imaging*

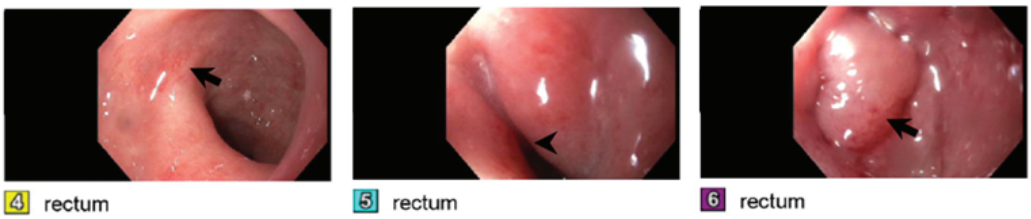


***Figure 3.*** *Images of the remnant rectum during colonoscopy*

noncaseating granulomas with fibrosis, edema, and plasma cells consistent with cutaneous Crohn's disease. Per dermatology recommendations, she was started on metronidazole therapy. Colorectal surgery was consulted for evaluation of her colovaginal fistula with no surgical intervention recommended, discontinuation of TPN, and advancement to a low fiber and low residual diet. CT enterography was performed with no evidence of active or chronic IBD. A colonoscopy demonstrated erythema and erosions in the remnant rectum with rectal biopsies demonstrating chronic colitis with patchy activity thought to be a sequela of her prior surgery. Ileoscopy did not reveal any gross disease with normal ileal biopsies. Notably, the pathology of her two prior colonic resections was similarly unremarkable for features of IBD.

She was ultimately diagnosed with cutaneous MCD and started on sulfasalazine and infliximab therapy. Three months after hospitalization, she was noted to have significant improvement of her CCD and colovaginal fistula.

## Discussion

The most common site for extraintestinal disease in patients with CD is the skin [2]. Cutaneous MCD is a rare dermatosis defined as noncaseating granulomas on histopathology from a skin lesion that is not contiguous with the GI tract or fistula [1,2]. In the majority of cases of cutaneous MCD, the development of MCD occurs at the time of or after the initial diagnosis of CD [3]. For this reason, all patients with suspected cutaneous MCD should undergo colonoscopy to evaluate for gastrointestinal evidence of CD. Our patient's ileoscopy and colonoscopy demonstrated no concern of gastrointestinal involvement. To our knowledge, our patient case is one of only a few dozen case reports of cutaneous MCD without intestinal involvement [4,5].

Due to its rarity, there have been no randomized controlled studies to guide treatment of cutaneous MCD [2,3]. Case reports and case series have suggested treatment success with tumor necrosis factor (TNF) – alpha inhibitors, azathioprine, systemic steroids, and metronidazole [3-6]. For this reason, our patient was started on both infliximab, a TNF-alpha inhibitor and metronidazole therapy.

Cutaneous MCD is a rare disease that causes significant morbidity and can occur in patients without intestinal CD. In patients presenting with intractable pain in the setting of an erythematous intertriginous rash, cutaneous MCD is an important diagnosis to consider. Prompt diagnosis of cutaneous MCD is a crucial step in initiating appropriate treatment and alleviating suffering.

## Conflict of Interest

The authors have no conflicts of interest to disclose.

## References


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