

Inflammatory Bowel Disease or Drug-Induced Colitis? A Diagnostic Challenge in a CML Case Under Dasatinib Therapy

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May 1, 2025

July 17, 2025

Dasatinib is a second-generation tyrosine kinase inhibitor that has demonstrated efficacy in the treatment of Philadelphia chromosome-positive chronic myeloid leukemia (CML) both as first-line therapy and in patients who develop intolerance or resistance to imatinib (1). In addition to its effect on the BCR-ABL fusion protein, it inhibits a variety of kinases, including the SRC family, providing a broad spectrum of activity by leading to a reduction in regulatory T cells. Although pleural effusion and cytopenias are among the most recognized adverse effects of dasatinib, gastrointestinal side effects such as diarrhea, bleeding and colitis are also clinically important (2). We present here a case that was initially misdiagnosed as inflammatory bowel disease (IBD) but ultimately turned out to be dasatinib-induced colitis, with the aim of contributing to the diagnostic process.

A 26-year-old man was diagnosed with Ph+ CML in 2019. He was initially treated with imatinib, followed by nilotinib due to drug resistance, and later switched to dasatinib (100 mg/day) due to nausea and vomiting. After three years of remission under dasatinib, he developed non-bloody diarrhea (5–6 times/day), abdominal distension, and fatigue. A colonoscopy performed at an outside facility revealed skip lesions with ulcerations (Figure 1A), and the patient was diagnosed with Crohn's disease, for which budesonide and mesalazine therapy was initiated.

Due to the persistent symptoms, the patient was re-examined at our institution. Stool cultures were negative, but fecal occult blood was positive. A repeat colonoscopy showed diffuse mucosal hyperemia and loss of vascular pattern in all colonic segments, with a normal terminal ileum (Figure 1B). Histopathologic examination revealed dense neutrophilic infiltration in the lamina propria without crypt abscesses or distortion (Figure 1C). CMV infection was ruled out with negative tissue and blood PCR. The combination of clinical, endoscopic and histologic findings led to the diagnosis of dasatinib-induced colitis. After discontinuation of the drug, the symptoms resolved completely within about three weeks. A follow-up colonoscopy was not performed due to complete and sustained symptom resolution.

Dasatinib-associated colitis has been predominantly described in the literature as hemorrhagic or non-specific colitis (3,4). However, recent reports have highlighted cases that mimic Crohn's disease, which can lead to misdiagnosis and unnecessary immunosuppressive therapy (5,6). In patients who have been taking dasatinib for a long time and develop gastrointestinal symptoms, drug-induced colitis should be considered in the differential diagnosis.

This case emphasises the fact that dasatinib-induced colitis can be very similar to IBD both clinically and histologically. A thorough pharmacologic history is crucial for an accurate diagnosis. Early detection can prevent inappropriate treatment and reduce patient morbidity.

Availability of Data and Materials

All data generated or analyzed during this study are included in this published article.

Ethical Approval Statement

This study was conducted in accordance with the ethical standards of the institutional research committee and the Helsinki Declaration.

Informed Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Author Contributions

Concept – H.D., M.T.;
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Supervision – M.T, M.A.;
Resources – Y.B.K., M.T;
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Data Collection and/or Processing – H.D., Y.B.K.;
Analysis and/or Interpretation – H.D., M.T;
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Declaration of Interests

The authors declare no conflicts of interest.

Funding

The authors received no financial support for this study.

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