

# Dasatinib-Induced Severe Hemorrhagic Colitis in Chronic Myeloid Leukemia

Murat KEKILLI<sup>1</sup>, Alpaslan TANOGLU<sup>2</sup>, Merih K. CAKAR<sup>3</sup>,  
Guven GUNEY<sup>4</sup>, Ibrahim C. HAZNEDAROGLU<sup>5</sup>

<sup>1</sup> Hitit University Corum Training and Research Hospital, Department of Gastroenterology, Corum

<sup>2</sup> GATA Haydarpaşa Training Hospital, Department of Gastroenterology, Istanbul

<sup>3</sup> Hitit University, Corum Training and Research Hospital, Department of Hematology, Corum

<sup>4</sup> Hitit University, Corum Training and Research Hospital, Department of Pathology, Corum

<sup>5</sup> Hacettepe University Faculty of Medicine, Department of Hematology, Ankara, TURKEY

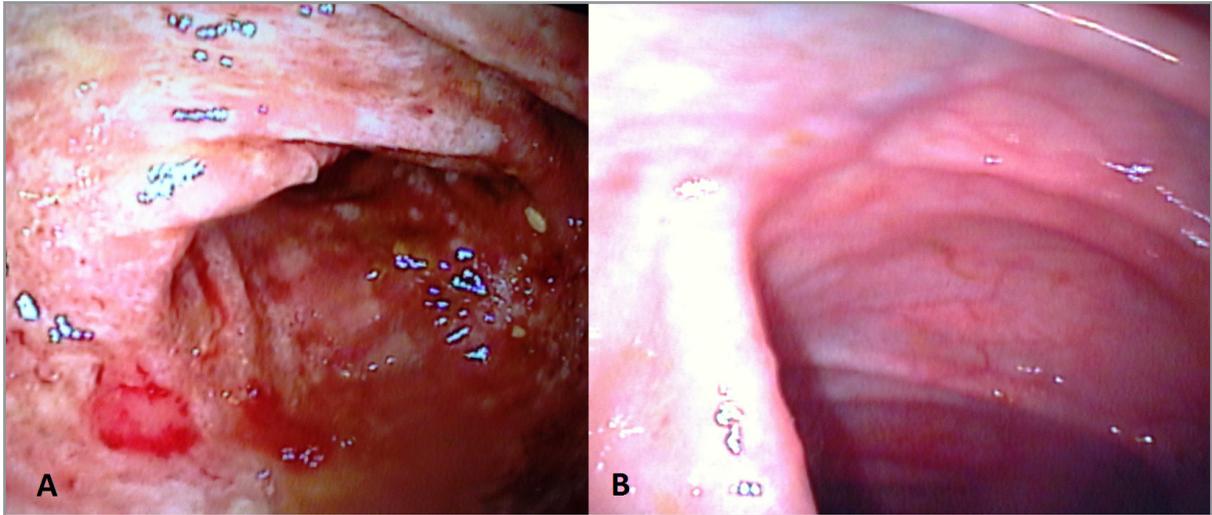
Dear Editor,

Dasatinib is an orally administered, potent, second-line tyrosine kinase inhibitor which is used for treating imatinib resistant or intolerant chronic myeloid leukemia (CML) and Philadelphia chromosome-positive acute lymphoblastic leukemia.<sup>1</sup> Dasatinib has several significant adverse reactions and gastrointestinal side effects. Risk factors for gastrointestinal bleeding including thrombocytopenia and advanced CML.<sup>2</sup> Here, we report the case of a young male patient with Ph+ chronic myeloid leukemia in the remissioned phase who was admitted to our gastroenterology clinic because of severe rectal bleeding, one year after the beginning of dasatinib use.

A 21-year-old male had been diagnosed with blastic phase of CML 3 years ago. During the follow-up, dasatinib (100 mg/day) was started nearly one year ago, because of resistance to imatinib. Dasatinib was continued as a maintenance therapy and during dasatinib therapy, he was admitted to our clinic with severe rectal bleeding. His physical examination was normal. Blood pressure was 110/75 mmHg and heart rate was 76 beats per minute. The laboratory findings revealed a hemoglobin level of 13 g/dL, a white blood cell count of 8400/mm<sup>3</sup>, and a platelet count of 303000/mm<sup>3</sup>. His prothrombin time international normalized ratio value was 0.98. Stool examination

was negative for parasites and other pathogenic bacteria. Then he was prepared for total colonoscopy. From rectum to splenic flexure, colonoscopic findings were normal. But from splenic flexure to cecum, colonoscopic findings were compatible with severe hemorrhagic colitis (Figure 1-A). Multiple biopsies were taken from these mucosal areas. Histopathological examinations of biopsy specimens revealed hemorrhage, prominent lymphocytic inflammatory infiltrate including neutrophils, focal cryptitis and lymphoid follicles in the lamina propria. Because of a well-known side effect, hemorrhagic colitis due to dasatinib was considered at the first step, dasatinib was stopped and no other medication was administered. He was followed up as an outpatient with recommends. 15 days later a control colonoscopy was performed and control colonoscopy was normal (Figure 1-B). Nilotinib (400 mg/day) was started as an alternative to dasatinib for CML treatment. Now, he is still alive and in complete remission.

Up to now, severe dasatinib-related hemorrhagic colitis, without thrombocytopenia or coagulation abnormalities, has been infrequently reported. In the literature, during dasatinib treatment, severe rectal bleeding due to acute colitis has been reported only in 1 acute lymphoblastic leukemia patient<sup>3</sup>, 1 acute myeloid leukemia patient<sup>4</sup> and in 2 chronic myeloid leukemia patients.<sup>5</sup>



**Figure 1-A.** The colonoscopic findings were compatible with severe hemorrhagic colitis. **1-B.** The control colonoscopy was normal

Original aspects of our case were; rectal bleeding was not related to thrombocytopenia or coagulation abnormalities, his clinical picture was not severe so we followed up our patient as outpatient because of his well being, and we just stopped the dasatinib and no other medication was administered and hemorrhagic colitis was healed dramatically.

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#### Correspondence

Dr. Murat KEKILLI

Hittit Üniversitesi Tıp Fakültesi  
Eğitim ve Araştırma Hastanesi  
Gastroenteroloji Anabilim Dalı  
Bacelievler Mahallesi  
Camlık Caddesi No: 2  
19100 CORUM / TURKEY

Fax: (+90-364) 223 03 00

e-mail: drkekilli@gmail.com