Massive Gastrointestinal Bleeding During the Course of Chronic Myelomonocytic Leukemia

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We report the case of a 75-year-old male patient with chronic myelomonocytic leukemia-2 (CMML-2), who developed massive lower gastrointestinal bleeding caused by leukemic mucosal infiltration. CMML with trisomy 8 was diagnosed one year ago and was unresponsive to 5-azacytidine treatment at a dose of 75 mg/m²/day for 7 consecutive days via subcutaneous injection, repeated every 28 days for six cycles. Low-dose cytarabine was initiated and the patient was hospitalized because of transfusion dependence and increasing white blood cell counts. During hospitalization the patient had a sudden onset of hematochezia. An acute drop in hemoglobin from 8 g/dl to 4.8 g/dl developed with a daily transfusion requirement of more than 2 units of packed red blood cells for 8 days. Colonoscopy revealed a red edematous lesion 2 cm in diameter in the sigmoid colon, which was elevated from the mucosa with central ulceration (Fig. 1). Besides this dominant lesion there were multiple, similar lesions in the sigmoid colon, descending colon and cecum which were 0.5 to 1 cm in diameter. The morphopathological examination of these lesions demonstrated diffuse infiltration of the colon mucosa and part of the lamina propria with myeloid precursors (Fig. 2, H&E x400), atypical mononuclear cells, staining positive for myeloperoxidase (Fig. 3, x400). The progression of the disease and abdominal sepsis led to the death of the patient.

The massive hematochezia in this patient with CMML was caused by leukemic infiltration of the colon. CMML is a rare clonal bone marrow disorder with overlapping myelodysplastic/myeloproliferative features. The disease often presents with extramedullary involvement, but its occurrence in the gastrointestinal tract is exceptionally rare [1]. Presence of trisomy 8 is associated with high risk for disease [2]. In 1962 Cornes et al [3] identified gastrointestinal leukemic lesions in 14.8% of 264 cases with leukemia at autopsy, although it is not possible to ascertain what proportion of cases were in fact CMLM. CMML involvement of the large bowel has only been reported in a few case reports [4, 5]. The patients presented with melena, hematochezia, diarrhea or colonic perforation. It is important to consider extramedullary leukemic involvement in CMML patients with gastrointestinal bleeding.

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Conflicts of interest: None to declare.

REFERENCES