JGH Open Open Access An open access journal of gastroenterology and hepatology

JGHF Journal of Gastroenterology and Hepatology Foundation

doi:10.1002/jgh3.12940

CASE REPORT

Diffuse large B-cell lymphoma in large intestine presenting as multiple polypoid lesions

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Key words
colonic polyps, diffuse large B-cell lymphoma, endoscopy.

Accepted for publication 30 June 2023.

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Declaration of conflict of interest: The authors declare no conflicts of interest.

Funding support: The corporation project of Sichuan University and Zigong 2022CDZG-26

Abstract

A solitary large ulcerated mass is the common morphological feature of diffuse large B-cell lymphoma (DLBCL) in the large intestine under endoscopy. Here we report a 54-year-old man with DLBCL presenting with multiple polypoid lesions in the large intestine, which is an uncommon morphological form of DLBCL.

Introduction

Diffuse large B-cell lymphoma (DLBCL) ranks first among all histological types of gastrointestinal lymphoma.[1] Under endoscopy, DLBCL in the large intestine usually presents as a solitary, large, ulcerated mass.[2,3] Here we report a case of DLBCL in the large intestine with a distinct morphology of multiple polypoid lesions.

Case report

A 54-year-old man was admitted to our department complaining of fever and hematochezia for 10 days. He did not suffer abdominal pain or hematemesis. Physical examination revealed cervical and inguinal lymphadenopathies. Blood tests showed a decreased hemoglobin level of 80 g/L (normal value: 130–170 g/L), low platelet count of 35×10^9/L (normal value: 100–300 $\times 10^9$/L), increased lactate dehydrogenase level of 1001 IU/L (normal value: 120–250 IU/L), and positive Epsten-Barr virus (EBV) DNA (5.8×10^6 copies/mL). Liver and renal function tests were normal. Computed tomography of the chest and abdomen showed enlarged lymph nodes scattered in the pelvic cavity, retroperitoneum, hepatic hilum and inguinal region, and around the abdominal aorta and iliac vessels. Esophagogastroduodenoscopy showed gastric and duodenal ulcers. Capsule endoscopy found no abnormalities. However, in addition to melanosis coli, colonoscopy revealed multiple polypoid lesions from the descending colon to the rectum (Fig. 1a,b). During colonoscopy, biopsy was performed on polypoid lesions, and the pathology of these lesions revealed DLBCL (Fig. 1c). Immunostaining tested positive for CD20 and a high Ki-67 proliferation index (60–70%), as well as positive EBV-encoded RNA (Fig. 1d–f). The cervical lymph node biopsy also confirmed B-cell lymphoma. Based on these findings, the patient was diagnosed with DLBCL. He thereafter received six cycles of chemotherapy with the R-CHOP regimen, but eventually died of pneumonia 7 months after diagnosis.

Discussion

Lymphoma is categorized into Hodgkin's lymphoma (10% of all lymphomas) and non-Hodgkin lymphoma.[4] Extranodal lymphoma refers to lymphomas that occur in organs or tissues beyond the lymph nodes and spleen, and the gastrointestinal tract is the most commonly involved site for extranodal non-Hodgkin's lymphoma, accounting for 30–40% of all cases.[5] Risk factors for gastrointestinal DLBCL include immune dysfunction, viral infections, and genetic factors.[6,7] The symptoms of gastrointestinal DLBCL lymphoma include abdominal pain, weight loss, abdominal mass, as well as gastrointestinal bleeding, perforation, and obstruction.[8] Under endoscopy, DLBCL in the large intestine usually presents as a unique,

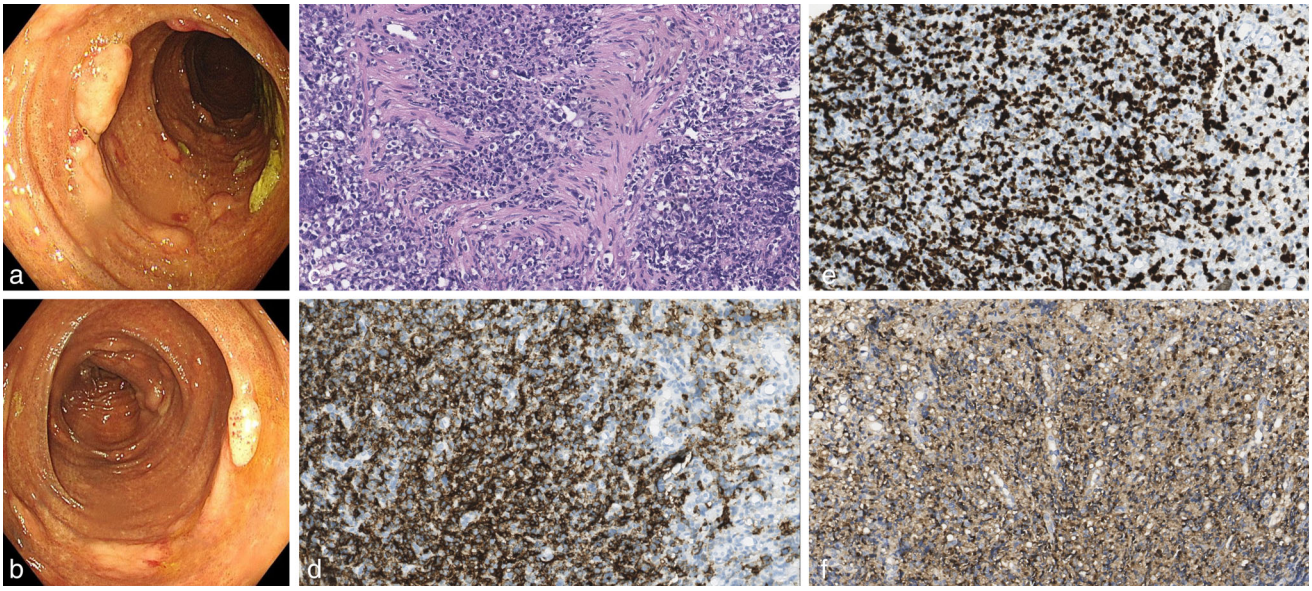

Figure 1 Imaging of colonoscopy and pathology. (a, b) Colonoscopy images showing multiple polypoid lesions. (c–f) Pathology of the intestinal polypoid lesions: (c) HE staining; (d) CD20 staining; (e) Ki-67 staining; (f) Epstein–Barr virus-encoded RNA staining. All pathological images are at 400× magnification.

large, ulcerated mass, whereas multiple polypoid lesions are seldom seen.[2,3] When DLBCL presents as multiple polypoid lesions in the gastrointestinal tract, these lesions are not easily detectable by physical examination and abdominal imaging. Therefore, endoscopy has become a pivotal tool for diagnosis in that clinical scenario. The CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone) regimen has been the mainstay therapy for DLBCL.[9] As an aggressive lymphoma, DLBCL carries a poor prognosis with a median survival of 15.8 months if untreated.[10] In addition, positive EBV infection might worsen the prognosis of DLBCL.[7] In light of the poor prognosis of DLBCL, it is crucial to promptly confirm the diagnosis of DLBCL, especially for those presenting with multiple polypoid lesions, which would shorten the lengthy duration of diagnosis to initiate the specialized treatment of DLBCL earlier, to improve the clinical outcome.

Acknowledgment

This work was supported by the corporation project of Sichuan University and Zigong (2022CDZG-26).

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