

A Rare Case of Primary Diffuse Large B Cell Lymphoma of the Colon

Qitan Huang, DO; Sean-Patrick Prince, MD, MPH; Denisse Camille Dayto, MD; Arjun Grewal, MD; Siddharth Mathur, MD, FACC

Department of Internal Medicine, USF Morsani GME Consortium: HCA Florida Citrus Hospital, Inverness, FL, USA



Background

- In the United States and United Kingdom, the incidence of diffuse large B-cell lymphoma (DLBCL) is approximately 7 cases per 100,000 people annually
- Primary colorectal lymphomas are uncommon and account for 0.3% of all large intestinal malignancies, majority are B-cell non-Hodgkin lymphoma with DLBCL representing the most common subtype

Case Presentation

- An 86-year-old female with a past medical history of diverticulosis, GERD, chronic atrial fibrillation on warfarin, hypertension, hyperlipidemia presented with complaints of lower abdominal cramping, bloating, changes in bowel habit, and intermittent rectal bleeding
- Social History: No tobacco, alcohol or illicit drug use
- Surgical History: Hysterectomy
- Vitals Signs: BP 151/83 mmHg, T98.6 F, HR 91 bpm, RR 99%
- Physical exam significant for mild lower abdominal tenderness, otherwise remainder of exam were unremarkable

Laboratory Results

WBC	10.56 x 10 ³ cells/uL
Hemoglobin	11.0 x10 ³ cells/uL
Platelets	97
Potassium	2.8 mmol/L

Colonoscopy

Stricture of benign intrinsic appearance in the sigmoid colon measuring 10 cm in diameter and 3 cm in length

Histology

Mild to moderate colitis with no specific findings on trichrome stain

Diagnostic Results

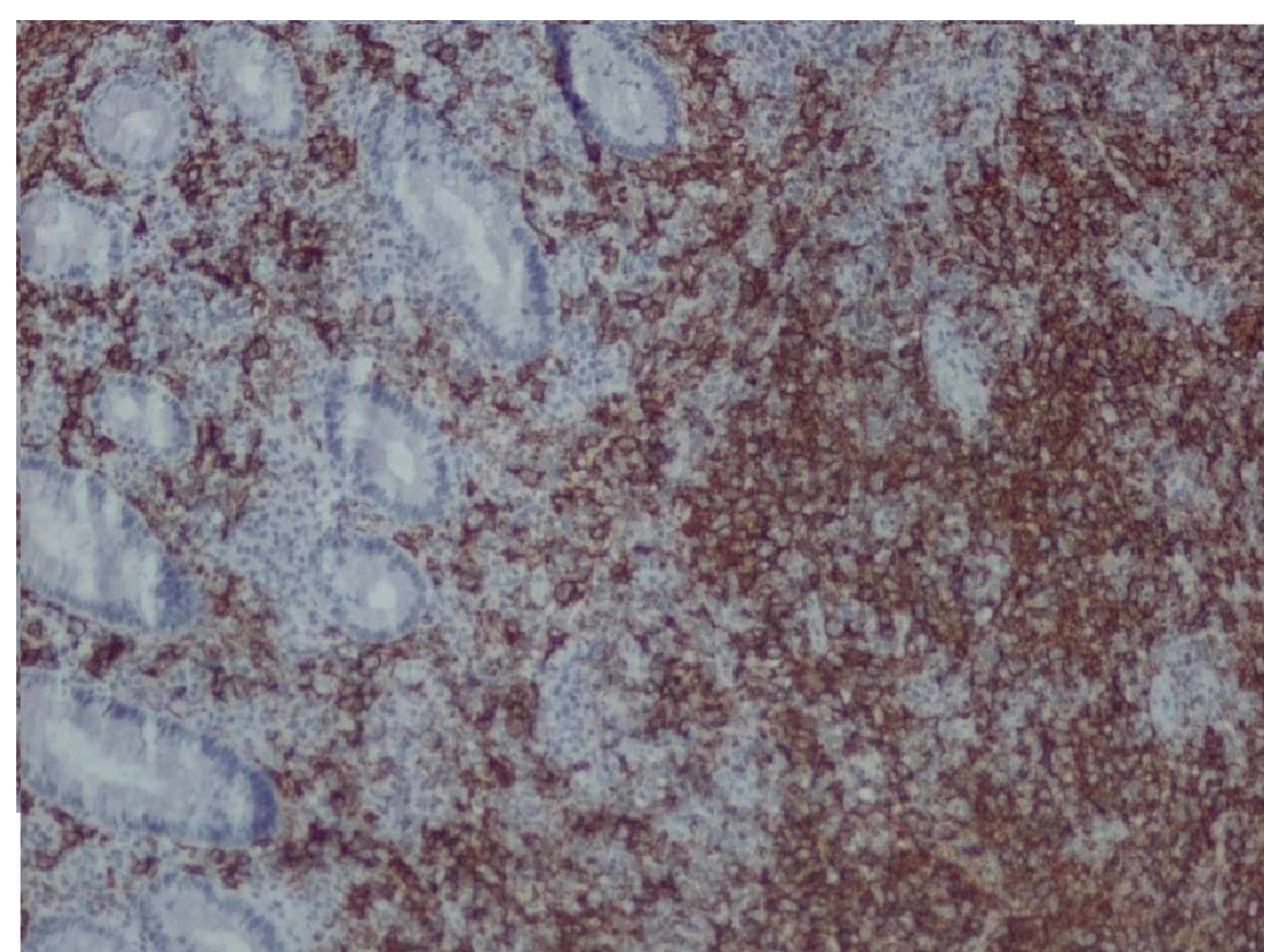
- The patient was taken for laparoscopic low anterior resection of a sigmoid colonic mass and was converted to an open approach intraoperatively due to the size of the mass and decreased visualization in the pelvis
- The sigmoid colon was further mobilized and the uninvolved portions of the proximal rectum and descending colon were transected
- The sigmoid colon was removed and sent to pathology for further analysis and the proximal rectum and descending colon were anastomosed with no air leaks identified
- Surgical pathology report of the sigmoid colon specimen later showed malignant lymphoma with transmural invasion and involvement of numerous adjacent peri-colonic nodes, but the proximal and distal resection margins were negative for tumor



CT Abdomen Pelvis with contrast
Sigmoid colonic diverticulosis

Chilaiditi Syndrome with interposition of colon between liver and right hemidiaphragm

Diagnosis: Diffuse Large B-Cell Lymphoma



Tumor Stain
Positive:
BCL-2, BCL-6, CD10, CD20
Negative:
CD3 and BCL-1

Highly proliferative activity for KI-67

Discussion

- As in the case of our patient, initial presentation had vague gastrointestinal abnormalities
- Imaging study with CT of the abdomen and pelvis and colonoscopy with biopsy were nonspecific
- Diagnostic modalities usually involve imaging to evaluate for extension of disease, direct visualization with colonoscopy, and sampling for tissue analysis
- In the case of DLBCL, the etiology is unknown however certain risk factors and predisposing conditions have been associated such as immunodeficiency and inflammatory bowel disease

Conclusion

- Primary colonic lymphomas are rather uncommon
- History and presenting symptoms are usually nonspecific which often results in delay of diagnosis
- Recognizing associated factors can help include disease onto the differential. Further advancement in immunohistochemistry and tumor analysis can allow for more timely diagnosis of colonic lymphomas

References

- Haddad I, El Kurdi B, El Iskandarani M, Babar S, Young M. Primary Diffuse Large B-cell Lymphoma of the Sigmoid Colon. Cureus. 2019;11(6):e5048. Published 2019 Jun 30. doi:10.7759/cureus.5048
- Sharma B, Pavelock N, Antoine M, Shah M, Galbraith K, Rawlins S. Primary Diffuse Large B-Cell Lymphoma of the Descending Colon. Am J Med Sci. 2019;358(2):164-167. doi:10.1016/j.amjms.2019.05.004
- Risio D, Percario R, Legnini M, et al. Diffuse large B-cell lymphoma of the colon with synchronous liver metastasis: a rare case report mimicking metastatic colorectal adenocarcinoma. BMC Surg. 2014;14:75. Published 2014 Oct 7. doi:10.1186/1471-2482-14-75
- Doolabh N, Anthony T, Simmang C, et al. Primary colonic lymphoma. J Surg Oncol. 2000;74(4):257-262. doi:10.1002/1096-9098(200008)74:4<257::aid-jso3>3.0.co;2-u
- Tahir M, Samad K, Koenig T, Viswanathan P. A rare case of primary diffuse large B-cell lymphoma of the colon. AME Case Rep. 2018;2:28. Published 2018 Jun 1. doi:10.21037/acr.2018.05.04
- Chen L, Sun Q, Chen E, Jin D, Song Z. Primary colonic lymphoma: report of two cases and a literature review. J Int Med Res. 2021;49(6):3000605211017037. doi:10.1177/03000605211017037
- Smith A, Howell D, Patmore R, Jack A, Roman E. Incidence of haematological malignancy by sub-type: a report from the Haematological Malignancy Research Network. Br J Cancer. 2011;105(11):1684-1692. doi:10.1038/bjc.2011.450
- Morton LM, Wang SS, Devesa SS, Hartge P, Weisenburger DD, Linet MS. Lymphoma incidence patterns by WHO subtype in the United States, 1992-2001. Blood. 2006;107(1):265-276. doi:10.1182/blood-2005-06-2508
- Figure 1: Case courtesy of Dr Michael P Hartung, Radiopaedia.org, rID: 57805
- Figure 2: Haddad I, El Kurdi B, El Iskandarani M, et al. (June 30, 2019) Primary Diffuse Large B-cell Lymphoma of the Sigmoid Colon. Cureus 11(6): e5048. doi:10.7759/cureus.5048