

Colon lymphoma: A case report and literature review

ABSTRACT

Colorectal lymphoma is a rare and uncommon entity, its diagnosis is most often delayed given the non-specific symptoms.

We report the case of a patient who complained of an abdominal pain and was diagnosed with right colon lymphoma. The treatment is made on a case-by-case basis

The purpose of this case is to describe our experience based on surgery as the cornerstone of treatment

Keywords: colon Lymphoma, non-Hodgkin lymphoma, surgery, chemotherapy.

1. INTRODUCTION

Colon lymphoma is a rare type of gastrointestinal lymphoma and represents 0.2% to –1.2% of all primary colon cancers(1), the stomach and small bowel are more frequently affected. The most common variety of colonic lymphoma is non-Hodgkin's lymphoma (NHL).

Most cases are diagnosed between the age of 50 and 70 years, with a male predominance (2/1).

“The presentation is usually nonspecific, leading to a delay in diagnosis, as the symptoms suggestive of colonic lymphoma are mainly aspecific. The treatment varies from chemotherapy alone to multimodal therapies combining surgery, chemotherapy and radiotherapy” (2,12).

2. CASE REPORT:

A 38-year-old male patient with no medical history, who was admitted for a complaint of hypogastric and left iliac fossa pain for more than two months associated with a chronic constipation.

Abdominal examination reveals hypogastric tenderness with a palpable mass, and rectal examination does not identify any abnormalities.

The initial biological assessment was normal, with a hemoglobin value of 13.2 g/dL, white blood cells 9300/mm³ and platelets value of 209000/mm³.

Abdominal CT Scan revealed a circumferential thickening of the right colon wall with some mesenteric adenopathies in the right iliac fossa



Figure 1: Abdominal CT scan showing right colon parietal thickening (Yellow Arrow)

Colonoscopy showed an irregular hyperplasia and congestion of the intestinal mucosa of the right colon with partial luminal obliteration, multiple biopsies were taken and pathological analysis were inconclusive.

Our patient underwent surgery, a median laparotomy was performed which revealed a mass in the ascending colon, neither ascites nor secondary deposits in the liver or peritoneum were detected at exploration. Right hemicolectomy was performed with ileo-transverse, side-to-side anastomosis.

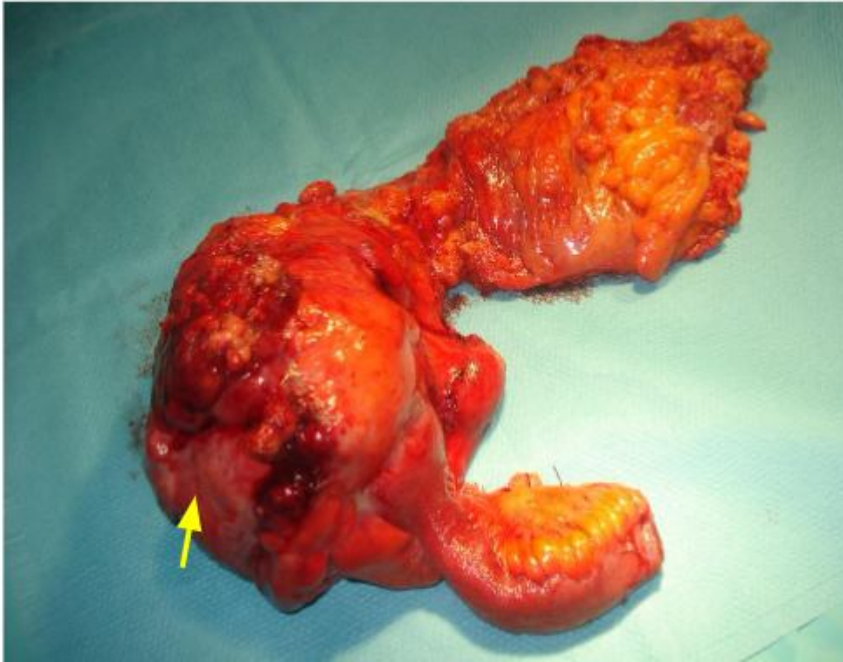


Figure 2 : Resected mass of the ascendent colon (Yellow Arrow)

Histopathological investigation of the resected mass revealed it to be lymphoma. Immunohistochemically, tumor cells were found positive for CD20 and CD45, but negative for CD3, which allowed us to make the diagnosis of diffuse large B cell lymphoma.

The resected margins were tumor free and the lymph nodes showed reactive hyperplasia.

Outcomes were uneventful through the patient was referred to Oncology department where he received six cycles of chemotherapy following surgery (CHOP).

3. DISCUSSION

"Lymphomas of the gastrointestinal tract are the most common type of primary extranodal lymphoma, representing 5-10% of all non-Hodgkin's lymphoma(3). Majority of these arise in the stomach (up to 65% of all GI lymphoma) followed by the small bowel (20–30%) with rest arising in the colon and rectum" (3–5)

"Primary lymphoma of the colon is a rare tumor of the gastrointestinal tract that comprises only 0.2-1% of all colonic malignancies" (6).

"The most common symptoms of colonic lymphoma are abdominal pain, nausea, vomiting, weight loss, abdominal mass, transit disorder" (3,5) rarely obstruction (4,5), These non-specific symptoms

explain the delay in diagnosis (5). Large masses can usually be palpated by a simple physical examination.

“Colorectal lymphoma is screened often by computed tomography (CT). It provides extraluminal and anatomical information about the size and extent of the tumor, the depth of invasion, and the involvement of regional lymph nodes. Radiographic findings associated with colorectal lymphoma are generally nonspecific and show significant similarity to those of other types of colorectal disease including colorectal adenocarcinoma” (7).

“Due to its rarity and non specific clinical and radiographic signs, the diagnosis of colorectal lymphoma is difficult to make. In the non-emergency setting, the diagnosis can usually be made preoperatively through a colonoscopy to obtain tissue biopsies” (7).

Surgery is the mainstay of treatment followed by chemotherapy(8); radical resection of the tumor (hemicolectomy) is then performed plus adjuvant multidrug therapy based on the CHOP protocol (cyclophosphamide, doxorubicin, vincristine and prednisolone). Surgery alone may be considered suitable treatment for patients with low-grade NHL whose infiltration has not spread beyond the submucosa(8). In late stages patients, biopsy is followed by multi-drug chemotherapy(9), However, “the prognosis of colon lymphoma is related to surgery, so it seems appropriate and prudent to resect colon lymphoma whenever possible” (10,11).

Prognosis is often varied with median survival of above 5 years reported in various series.

4. CONCLUSION

Colorectal lymphoma is a rare disease, constituting a small percentage of colorectal malignancies and gastrointestinal lymphomas.

Most patients present nonspecific symptoms, which often delays the diagnosis and leads to an advanced stage at the time of diagnosis.

Treatment of colorectal lymphoma usually consists on surgery followed by multi-agent systemic chemotherapy.

Unfortunately, despite aggressive treatment, the majority of colorectal lymphoma patients eventually experience recurrence.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the authors.

Consent

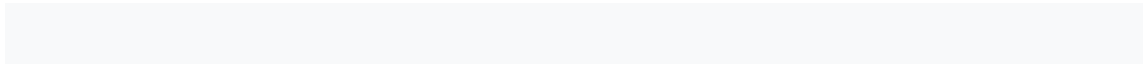
As per international standards or university standards, patient written consent has been collected and preserved by the authors

Disclaimer (Artificial intelligence)

We hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

REFERENCES

1. Hasturk, Denizcan MD^{a,*}; Akturk Esen, Selin MD^b; Buyukaksoy, Muge MD^a; Civelek, Burak MD^b; Seven, Ismet MD^b; Uncu, Dogan MD^b. Primary colon lymphomas: An analysis of our experience over the last 18 years. *Medicine* 103(19):p e38013, May 10, 2024. | DOI: 10.1097/MD.00000000000038013
2. Stanojevic GZ, Nestorovic MD, Brankovic BR, Stojanovic MP, Jovanovic MM, Radojkovic MD. Primary colorectal lymphoma: An overview. *World J Gastrointest Oncol* [Internet]. 2011 Jan 1 [cited 2023 Mar 16];3(1):14. Available from: /pmc/articles/PMC3026053/
3. Zinzani PL, Magagnoli M, Pagliani G, Bendandi M, Gherlinzoni F, Merla E, et al. Primary intestinal lymphoma: Clinical and therapeutic features of 32 patients. *Haematologica* [Internet]. 1997 [cited 2023 Mar 8];82(3):305–8. Available from: <https://pubmed.ncbi.nlm.nih.gov/9234576/>
4. Bernstein M. Perioperative chemotherapy with FOLFOX4 and surgery versus surgery alone for resectable liver metastases from colorectal cancer (EORTC Intergroup trial 40983): A randomized controlled trial [Internet]. Vol. 51, *Diseases of the Colon and Rectum*. 2008 [cited 2023 Mar 8]. p. 1306–7. Available from: <https://pubmed.ncbi.nlm.nih.gov/18376684/>
5. Bairey O, Ruchlemer R, Shpilberg O. Non-Hodgkin's lymphomas of the colon. *Isr Med Assoc J* [Internet]. 2006 [cited 2023 Mar 8];8(12):832–5. Available from: <https://pubmed.ncbi.nlm.nih.gov/17214096/>
6. Wong MTC, Eu KW. Primary colorectal lymphomas. *Colorectal Dis* [Internet]. 2006 Sep [cited 2023 Mar 8];8(7):586–91. Available from: <https://pubmed.ncbi.nlm.nih.gov/16919111/>
7. Quayle FJ, Lowney JK. Colorectal Lymphoma. *Clin Colon Rectal Surg* [Internet]. 2006 May [cited 2023 Mar 8];19(2):49. Available from: /pmc/articles/PMC2780105/
8. Tondini C, Giardini R, Bozzetti F, Valagussa P, Santoro A, Bertulli R, et al. Combined modality treatment for primary gastrointestinal non-Hodgkin's lymphoma: the Milan Cancer Institute experience. *Ann Oncol Off J Eur Soc Med Oncol* [Internet]. 1993 [cited 2023 Mar 8];4(10):831–7. Available from: <https://pubmed.ncbi.nlm.nih.gov/8117602/>
9. Dalal L. Primary multifocal non-Hodgkin lymphoma of the colon successfully treated with chemotherapy. *Gastrointest Endosc* [Internet]. 2008 Nov [cited 2023 Mar 8];68(5):1005–6. Available from: <https://pubmed.ncbi.nlm.nih.gov/18565526/>
10. Gobbi PG, Ghirardelli ML, Cavalli C, Baldini L, Brogna C, Clò V, et al. The role of surgery in the treatment of gastrointestinal lymphomas other than low-grade MALT lymphomas. *Haematologica* [Internet]. 2000 [cited 2023 Mar 8];85(4):372–80. Available from: <https://pubmed.ncbi.nlm.nih.gov/10756362/>
11. Waisberg J, Bromberg SH, Franco MIF, Matheus CO, Zanotto A, Petrolino LF, et al. Primary non-Hodgkin lymphoma of the right colon: A retrospective clinical-pathological study. *Int Surg* [Internet]. 2001 [cited 2023 Mar 8];86(1):20–5. Available from: <https://pubmed.ncbi.nlm.nih.gov/11890335/>
12. Tauro, Leo F.; Furtado, Harold W.; Aithala, Panambur S.; D'Souza, Clement S.; George, Celine; Vishnumoorthy, Santhrupth H.. Primary Lymphoma of the Colon. *Saudi Journal of Gastroenterology* 15(4):p 279-282, October 2009. | DOI: 10.4103/1319-3767.56095



UNDER PEER REVIEW