

**Case Report****Primary Non-Hodgkin Lymphoma of Sigmoid Colon: A Rare Presentation**

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ABSTRACT

Primary lymphoma of the colon is a rare tumor of the gastrointestinal (GI) tract and comprises only 0.2-1.2% of all colonic malignancies. The most common variety of colonic lymphoma is Non-Hodgkin's lymphoma (NHL). The GI tract is the most frequently involved site, accounting for 30-40% of all extra nodal lymphomas, approximately 4-20% of which are NHL. The stomach is the most common location of GI lymphomas, followed by the small intestine. We present a case report of 40 year old male presenting with progressive constipation since 6 month, investigation showed sigmoid growth. He underwent exploratory laparotomy and anterior resection with Colocolic anastomosis and diversion loop Ileostomy; correctly diagnosed as Non-Hodgkin lymphoma of sigmoid colon.

1. Introduction

The gastrointestinal (GI) tract is the most common site of involvement of extra-nodal Non-Hodgkin's Lymphoma (NHL), occurring in up to 40% of cases[1]. However, the colorectal area is a rare site for primary lymphoma as most GI-NHL originate from the stomach and small intestines, probably due to their prominent lymphoid tissue[2]. Primary colorectal lymphoma (PCL) constitutes less than 10% of all GI lymphomas and a small proportion of colorectal malignancies. Although several cases of primary lymphoma throughout the large intestine have been reported in the literature, the sigmoid colon non Hodgkin lymphoma has been rarely reported as a site of origin for PCL. Here we report a rare case of large Non Hodgkin Lymphoma of sigmoid colon with the intent to discuss its surgical and therapeutic features.

2. Case report

A 40 year old male presented in outpatient department of general surgery at SMS Hospital with chief complain of progressive constipation with altered consistency of stool, consistency becoming progressively semi solid over time. There was history of use of purgative in increasing dosage. There was no history of

pain abdomen, melena, hematochezia, bleeding per rectum, weight loss and loss of appetite. General physical examination and per abdominal examination was normal. Per rectal examination revealed no abnormality. Patient was admitted in hospital and all routine blood investigation was within normal limit. Serum CEA was 1.53ng/ml. Ultrasound showed an oval hypoechoic area 88.9×69.8cm in the left para umbilical region and extending to left iliac fossa showing peripheral hypoechoic rim and central echogenic part suggestive of bowel mass. Colonoscopy showed large growth coated with stool material seen at 25 cm, occupying ≥50% circumference and occluding ≥ 50% lumen suspicious of malignant growth. Colonoscopic biopsy was non suggestive, showed multiple fragments of necrotic tissue covered with purulent exudate and granulation tissue. CECT abdomen and pelvis showed short segment eccentric wall thickening noted involving the sigmoid colon. Maximum thickness was 6 cm and length of involved segment was 7.3 cm. Multiple enlarged lymph node were seen in surrounding region, likely mitotic. Multiple subcentimeter size pre and para aortic lymph nodes were also noted (Figure no.1 & 2).

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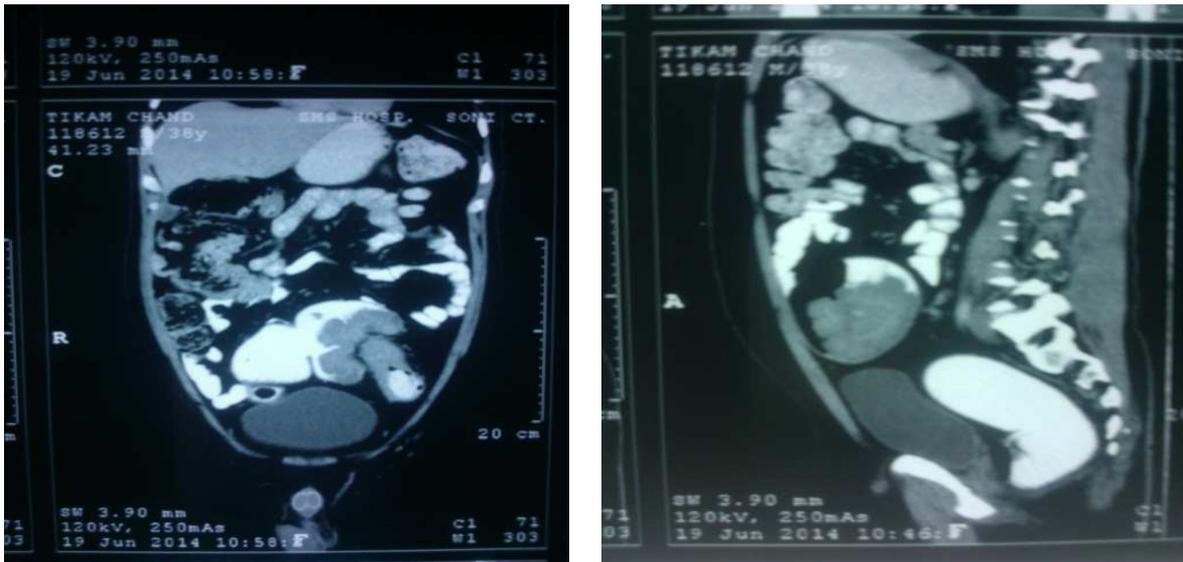


Figure no. 1

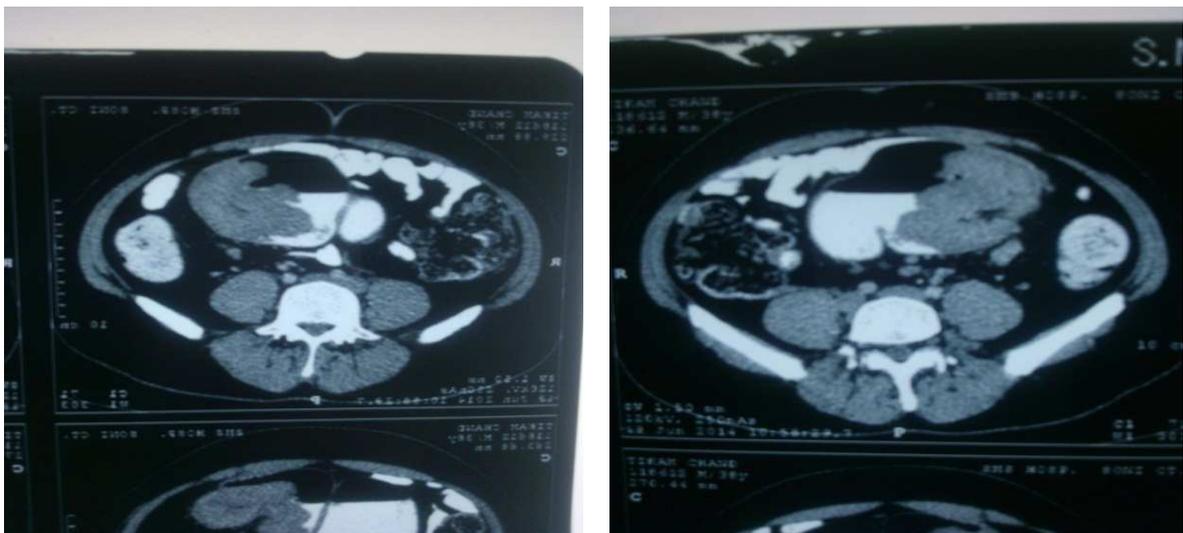


Figure no. 2

Figure no. 1, 2 showing CECT of Abdomen and Pelvis showing short segment eccentric wall thickening involving the sigmoid colon. Maximum thickness was 6 cm and length of involved segment was 7.3 cm.

Exploratory laparotomy was planned, per operative findings showed large intraluminal growth involving sigmoid colon, length of involved segment was approximately 7 cm. No adhesions were present with adjoining organs, no mesenteric, peritoneal or visceral deposits seen. No mesenteric, mesocolic lymphadenopathy seen. Thus Anterior Resection with Colo Colic Anastomosis and proximal diversion loop ileostomy was done. Post operative period was uneventful and patient discharged on day 7 with stable vitals, functional ileostomy and healthy suture line. Histopathological report of multiple section

from the growth showed malignant neoplasm composed of round cells arranged in an associated manner. The nuclei were round with small inconspicuous nucleoli. The cytoplasm is scanty. Mitotic activity was high. Areas of necrosis seen. Both resected margins were negative for presence of tumor. All lymph nodes were negative for metastasis (0/15). Overall microscopic features revealed poorly differentiated malignant neoplasm, suggestive of Non Hodgkin's Lymphoma. After 2 month patient was taken for ileostomy closure and referred to medical oncology department for chemotherapy.

3. Discussion

Lymphomas of the GI tract are the most common type of primary extranodal lymphomas, accounting for 5-10% of all Non-Hodgkin's Lymphomas. In particular primary intestinal lymphomas represent about 15-20% of GI lymphomas. Primary lymphoma of the colon is a rare tumor of the gastrointestinal (GI) tract that comprises only 0.2-1.2% of all colonic malignancies[3]. GI lymphomas are predominantly located in the stomach (50-60%), whereas intestinal lymphomas are more infrequent and appear in the small bowel (20-30%), colon and the rectum (10-20%)[4]. Intestinal lymphomas differ from gastric lymphomas not only in pathology, but also in their clinical features, treatment and prognosis. Risk factors that have been identified for PCL include immune compromised conditions such as human immunodeficiency virus infection, organ transplantation and administration of immunosuppressive agents, inflammatory bowel disease and other medications[5]. PCL may originate from T-cell, B-cell or natural killer cell lymphoma, of which T-cell has a significantly worse prognosis[6]. The majority of these tumors originate from B-cells and are of the large diffuse type. The gross appearance of the tumor may be annular or just a thickened bowel wall. The majority of the colon lymphomas are single (86%), but can be multiple or diffuse in nature[7]. The most common symptoms of colonic lymphoma are abdominal pain, nausea, vomiting, weight loss, abdominal mass, change in bowel habits, hematochezia, obstruction, intussusceptions, and acute peritonitis due to intestinal perforation[7]. The lack of specific complaints and the rarity of intestinal obstruction probably accounts for the delay in diagnosis. These bulky masses can usually be palpated by simple physical examination and viewed by ultrasonography. Abdominal ultrasonography, colonoscopy with sub mucosal biopsy and computed tomography scan of the abdomen are required. Complete blood count, liver function tests, chest X-ray, peripheral smear for hematological studies and bone marrow biopsy are required to rule out systemic involvement and for staging the disease. Immunohistochemistry may be required in doubtful cases for sub classification. Combined modality of approach that includes surgical debulking and systemic chemotherapy is the preferred treatment[8]. Different therapeutic approaches include Radical tumor resection plus multi-agent chemotherapy in early stage patients, biopsy plus multidrug chemotherapy in advanced stage patients[7,8]. Polychemotherapy includes CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisolone) or CHOP-like combination chemotherapy or MACOP-B(Methotrexate, Doxorubicin, Cyclophosphamide, Vincristine, Prednisolone, Bleomycin) like regimens[8]. Surgery alone can be considered as an adequate treatment for patients with low-grade NHL disease that has not infiltrated beyond the submucosa[9]. However it is still thought that the prognosis of intestinal lymphomas is related to surgery; therefore, it seems appropriate and cautious to resect intestinal lymphomas whenever possible[10]. Those with limited stage disease may enjoy prolonged survival when treated with aggressive chemotherapy. Radiotherapy is beneficial for incomplete resection or nonresectable disease.

4. Conclusion

Our case suggests that possibility of primary colonic lymphoma must be kept in mind while evaluating any case of colonic growth. Primary colonic lymphomas are rare; caecum is the most common site of occurrence. Early diagnosis may prevent intestinal perforation; however the diagnosis is often delayed in most cases. Surgical resection is the mainstay of treatment for localized primary lymphomas followed by postoperative chemotherapy. Those with limited stage disease may enjoy prolonged survival when treated with aggressive chemotherapy. Surgery alone can be considered as an adequate treatment for patients with low-grade NHL disease that does not infiltrate beyond the sub mucosa. Although resection plays an important role in the local control of the disease and in preventing bleeding or perforation, it rarely eradicates the lymphoma by itself.

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