

## **Primary Colonic Non-Hodgkin's Lymphoma, Case Report and Review of Literature**

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### **ABSTRACT**

Primary lymphoma of the colon is rare in clinical practice and sometimes difficult to diagnose. The author here described a case of non-Hodgkin's lymphoma of the large bowel, who presented with a palpable abdominal mass without clinical evidence of obstruction; ultrasound diagnosed a solid mass in the right iliac fossa. Laparotomy revealed a big mass extending from the caecum to the whole ascending colon and partially fixed to the posterior abdominal wall. Right hemicolectomy performed with iliotransverse anastomosis. The diagnosis of low grade B-cell lymphoma was established by histopathological examination.

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### **INTRODUCTION**

Although gastrointestinal (GI) tract is the most common organ involved in extranodal lymphoma, primary lymphoma of the colon is relatively rare among colon malignancies, it comprises 10% of all GI lymphomas and probably less than 1% of malignancies in colorectum. By definition, primary gastrointestinal lymphomas exhibit no evidence of liver, spleen, or bone marrow involvement at the time of diagnosis; regional lymph nodes involvement may be present. Sporadic lymphomas are the most common form in the western hemisphere and appear to arise from the B cells of the mucosa associated lymphoid tissue (MALT). This type of lymphoma usually affects

adults, lacks a sex predilection, and may arise anywhere in the gut. Endoscopic findings of the primary lymphoma of the colon are sometimes difficult to differentiate from inflammatory bowel disease (IBD) or carcinoma of the colon. Diagnosis of the lymphoma is based on routine histological examinations, including traditional morphological, immunohistochemical (IHC) study and / or newly developed gene rearrangement analysis.

### **CASE REPORT**

A 28 years old patient presented with right iliac fossa pain of three weeks duration colicky in nature radiating to the epigastric region, severity of pain increases at the night, it was associated with nausea and vomiting.

The history started two years ago as recurrent abdominal pain with malaise, loss of appetite and weight loss, no hematemesis, no bleeding per-rectum, no jaundice. Systemic review was unremarkable.

On physical examination: patient looked ill, conscious, pale, pulse rate 100 /min regular, blood pressure 100/60 mmHg, Temp 38°C, local examination of the abdomen revealed a palpable mass with tenderness and guarding in the right iliac fossa without clinical evidence of obstruction, no palpable liver or spleen. Ultrasound examination revealed the presence of 5X7 cm mass with mixed echogenicity. The mass showed no pulsation or peristalsis. Other laboratory investigations including, general urine examination, stool examination, blood routine tests and bone marrow aspirate were all within normal.

Laparotomy performed through right para-median incision, revealed a big caecal mass extending to the ascending colon with adhesions to the posterior abdominal wall and inferior vena cava, liver was normal. Right hemicolectomy performed with excision of part of the terminal ileum, mesentery and local lymph nodes. Resected tissue were all sent for histopathological examination which showed low grade B-cell lymphoma of colonic mucosa, while the tissue from the terminal ileum was free from the tumour. (Figs. 1, 2). The post operative period was uneventful.

The patient was sent to the local oncologist who started chemotherapy treatment; he was given four courses of (COP) regimens (cyclophosphamide vincristin and prednisolone). He was followed up for 18 months; he is now symptoms free and increasing in weight.

### **DISCUSSION**

Primary gastro intestinal (GI) tract lymphoma is a rare disorder accounting for only 1-4 % of all GI malignancies (Maosween, R.N., Whaley, K., 1992; Kumar, V. et al., 1997; Shwartz, S.I. et al., 1988). Although GI tract is the most common extranodal location for the development of non- Hodgkin's lymphoma , the colon and rectum are uncommonly involved as compared with the stomach and small bowel which account for (55-60%) and (25-30 %) respectively (Kumar, V. et al., 1997).

For most gastrointestinal tract lymphomas, no specific association with a preexisting disease or pathological lesion have been reported (Lewis, J.D. et al., 2001).

However it has been proposed that lymphomas of mucosa-associated-lymphoid-tissue (MALT) arise in the setting of mucosal lymphoid activities as may result from Helicobacter associated chronic gastritis (Kumar, V. et al., 1997) beside the increased risk

of colorectal cancer among patients with inflammatory bowel diseases like Crohn's disease and ulcerative colitis is well established (Lewis, J.D. et al., 1999).

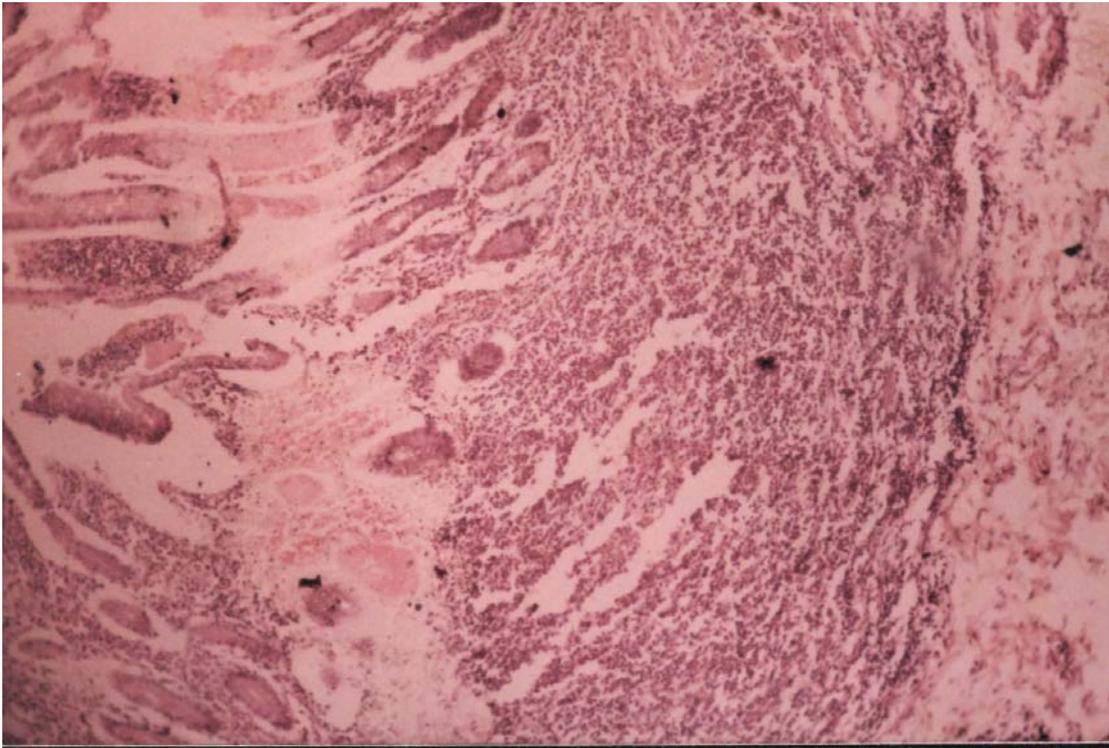


Fig.1: Low power X 10 H and E stain illustrate the colonic mucosa and the tumour.

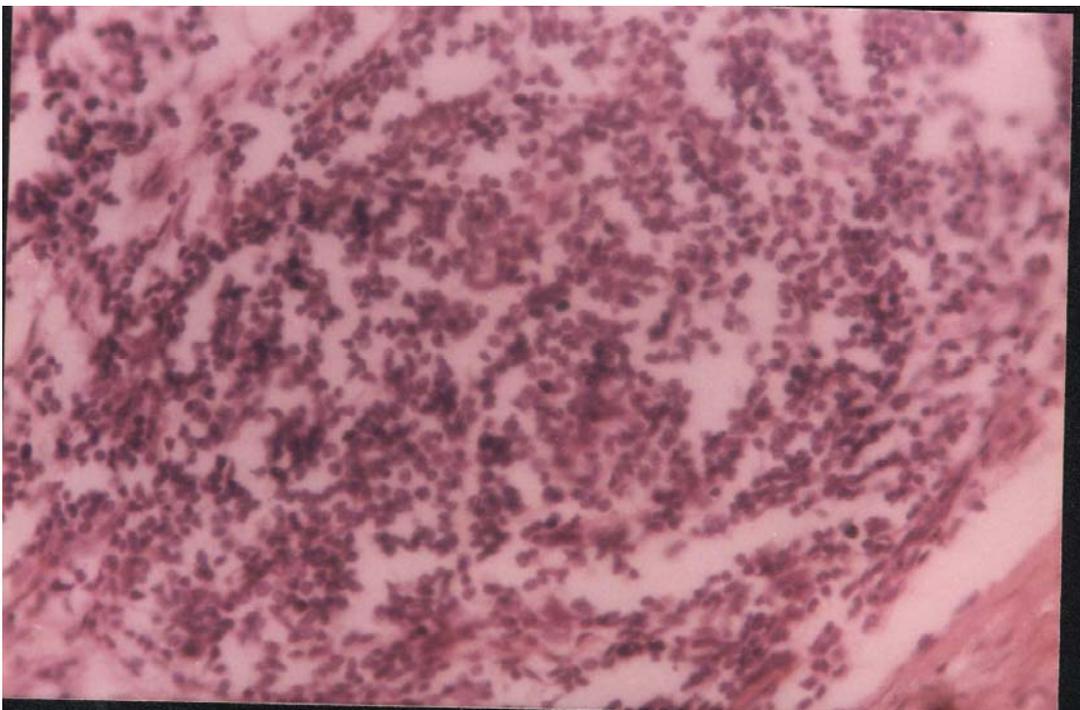


Fig.2: High power X 10 H and E stain showing the primary colonic non-Hodgkin's lymphoma (B-type).

The diagnostic criteria for primary intestinal lymphoma, as previously established by Dawson et al (Luo, J.C. et al., 1997), include:

- (1) The absence of a palpable superficial lymphadenopathy.
- (2) Absence of a palpable mediastinal lymphadenopathy by chest X-ray or by imaging.
- (3) Absence of hepatic or splenic involvement or distant lymphadenopathy by laparoscopy or laparotomy.
- (4) Normal peripheral blood count and uninvolved bone marrow.

Recently ultrasound and CT scan examination of the chest and abdomen have largely replaced laparoscopic examination and were commonly used in the evaluation of organ involvement in patients with malignant lymphoma (Smith, et al., 1992).

Our patient fulfilled all the criteria of primary colonic lymphoma but regional lymphadenopathy over the mesentery was noted at the time of laparotomy.

Colonic lymphoma may develop in patients with long standing inflammatory bowel disease or both diseases may present simultaneously (Rosenstock, E. et al., 1989). Thus, the differentiation between these two diseases clinically may be even more difficult, the modern immunohistochemical (IHC) studies on tissue sections not only help to distinguish between these two conditions but also allow the immunological classification of lymphoma into either B- or T-cell lineage (Chen, Y.T. et al., 1991).

Our case was manifested and treated as inflammatory bowel disease (IBD) clinically for about two years until confirmed by histopathological examination of low grade lymphoma of B-cell type which has good prognosis due to its less progressive nature, and has longer survival when compared with high grade lymphoma.

### **CONCLUSION**

This case has drawn our attention that primary colonic lymphoma may clinically simulate inflammatory bowel disease and the physician must have high suspicion of this disease.

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